

RLS-Sciences and the 9th Regional Leaders Summit in Québec

9-18 May, 2018

From 17 to 18 May, 2018, the Regional Leaders Summit met in Québec City. This was the ninth meeting of the Regional Leaders Summit, and marks the second time the summit was hosted in Québec. The theme of the conference was "Energy Transition: Towards a Low Carbon Economy". Ahead of and during the conference, events for each of the RLS-Sciences themes were held.

RLS-Sciences Activities for the 9th RLS Conference

- 9-18 May: Inaugural RLS-Energy Network Summer School
- 10-11 May: 2nd Annual Global Aerospace Campus Summer Summit
- 16 May: Journée de recherche "Digital Day"
- 17 May: Small Satellites project meeting
- 17 May: Energy Network presentation to RLS Heads of Government
- 18 May: RLS-Sciences presentations at the 9th RLS Conference

Energy

Ahead of the 9th RLS, the RLS-Energy Network co-organized its first ever summer school with the Université du Québec à Trois Rivières and the Fonds de recherche du Québec. The summer school, headed by Prof. Simon Barnabé, was hosted in Shawinigan and Québec from 9 May until 18 May. Students from across the RLS regions collaborated on joint project proposals throughout the course of the summer school, which culminated in several presentations during the 9th RLS Conference. Read more about the summer school [here](#).



Photo Credit: Véronique Baril

The Energy Network held a meeting with external guests to facilitate exchange between the regions and with organizations in the renewable energy field in Québec. This exchange included presentations from existing bi- and multilateral collaborations, as well as illuminating the specific opportunities for further collaborations. An example was the presentation of ClimEX, which is between LMU (Bavaria), OURANOS (Québec), and four other Bavarian and Québec institutions. The presentation included a visualization of data from the project on the effects of climate change on meteorological and hydrological extreme weather events in the two regions

which the partners hope to use as a communication tool.

The network then held an internal meeting to discuss next steps following the publishing of its first Monitoring Report.

Review the presentations from the first part of the meeting [here](#).

Digitalisation

The Expert Dialogue on Digitalisation began its meetings in Québec with a “Journée de recherche” or “Digital Day” hosted by the Fonds de recherche du Québec. The event brought together experts from across the RLS regions in digitization and innovation with Québec organizations working in AI, robotics, health, transportation, and more. RLS researchers presented on topics including the digital innovation ecosystem in Québec, programmes to foster international collaboration from São Paulo, and human-machine interactions. See the programme [here](#), and review the presentations [here](#).

On 17 May, an internal meeting provided an opportunity for further exchange from different regional perspectives. Presentations on initiatives from [Bavaria](#), [Georgia](#), [Québec](#), and [Upper Austria](#) offered insights into their respective digital transitions. Additionally, Georgia presented a video on a specific state-level initiative combining transit, energy, and digitization.

Global Aerospace Campus

Building on the success of its first two years of activities, the Global Aerospace Campus hosted its second Summer Summit near Montréal from 10 to 11 May. Organizers AÉROÉTS drew upon their broad network of aerospace professionals to bring together industry and academic participants with the RLS researchers and students. The theme of this summit was “Aerospace Sustainable Technologies to Address Industry 4.0 Challenges”.

Experts from across the RLS regions offered insights into specialities such as hybrid electric propulsion, advanced and additive manufacturing, structural dynamics, unmanned demonstrators for technology evaluation, and others. Additionally, a panel discussion addressed the question of which engineering skills will be most important for Industry 4.0 in the future. Seven students from across the regions, plus a number from the hosting region Québec, were able to network with researchers in a variety of aerospace specialities, offering new insights and perspectives.



Photo Credit: Munich Aerospace

Students, industry participants, and researchers also took advantage of Québec’s aerospace research and training ecosystem to undertake site visits to both the École nationale d’aérotechnique (ÉNA), which is a leader in technical training in aerospace technology, and the Centre technologique en aérospatiale (CTA), a college technology transfer centre. Review the programme [here](#).

Small Satellites

The RLS-Small Satellites project has been progressing towards a launch date, and the project meeting in Québec allowed the project partners a key opportunity to come together to determine the precise status of the individual satellites, the components, and the support. The project has now progressed to the stage of discussing further potential applications for the satellites following launch, which represents an important opportunity across all seven RLS regions. Review the meeting overview

presentation from Prof. Dr. Klaus Schilling [here](#), with detailed publication references available [here](#), and review the presentation from project partners in Shandong [here](#).

A highlight of the RLS-Small Satellites activities was the inclusion of a scale-model of the TIM satellite, which project leader Prof. Schilling brought to a number of events. This allowed participants from all levels of RLS to gain a better understanding of the satellites, including the proportions, which are a critical component of the project.

Presentation to the Heads of Government

The RLS-Energy Network was presented to the RLS Heads of Government as part of the political programme. This presentation showcased the strengths of the RLS regions in renewable energy developments and research via a short video. Energy Network lead scientist Dr. Sebastian Goers then gave a presentation outlining one of the network's latest outputs, the [RRA Monitoring Report](#). This allowed the heads of government to have an overview of the current state of renewables across the RLS regions, which is key information for policy creation.

Finally, Cristina Cavalcanti, a PhD student from São Paulo, presented one of the project proposals developed during the Energy Network summer school, addressing the water crisis in Cape Town, Western Cape.



Photo Credit: Laurence Gosselin

Review Dr. Goers' presentation [here](#), or the video [here](#).

RLS-Sciences Presentations at the 9th Regional Leaders Summit

On the final Friday of the 9th RLS, each of the four RLS-Sciences themes presented an update on the developments in each. In addition, two students from the RLS-Energy Network Summer School presented. Maximilian Mock and Maximilian Hauck, both from Bavaria, each presented the results of their group work from the Energy Network Summer School.

Review the Energy Presentation [here](#).

Review the Global Campus Aerospace presentation [here](#).

Review the Small Satellites presentation [here](#).

Review the Digitization presentation [here](#).

Review the student presentations [here](#) (Carbon management to help local economies) and [here](#) (ALU Green).

To learn more about RLS-Sciences, visit the RLS-Sciences website [here](#).

To learn more about the 9th RLS Conference, visit Québec Ministry of Relations internationales et Francophonie page [here](#).

