

Driving a competitive, sustainable and sovereign
industry for the future of Europe

Une industrie compétitive, durable et souveraine pour
le futur de l'Europe



27 June 2022 - 29 June 2022
Grenoble, France

**Conference on Industrial
Technologies IndTech2022**

GHz nanoscale electrical tests of the SEI in battery manufacturing

Nawfal Al-Zubaidi R-Smith
Gerald Kada
Ferry Kienberger

Keysight Technologies – Keysight Labs Linz

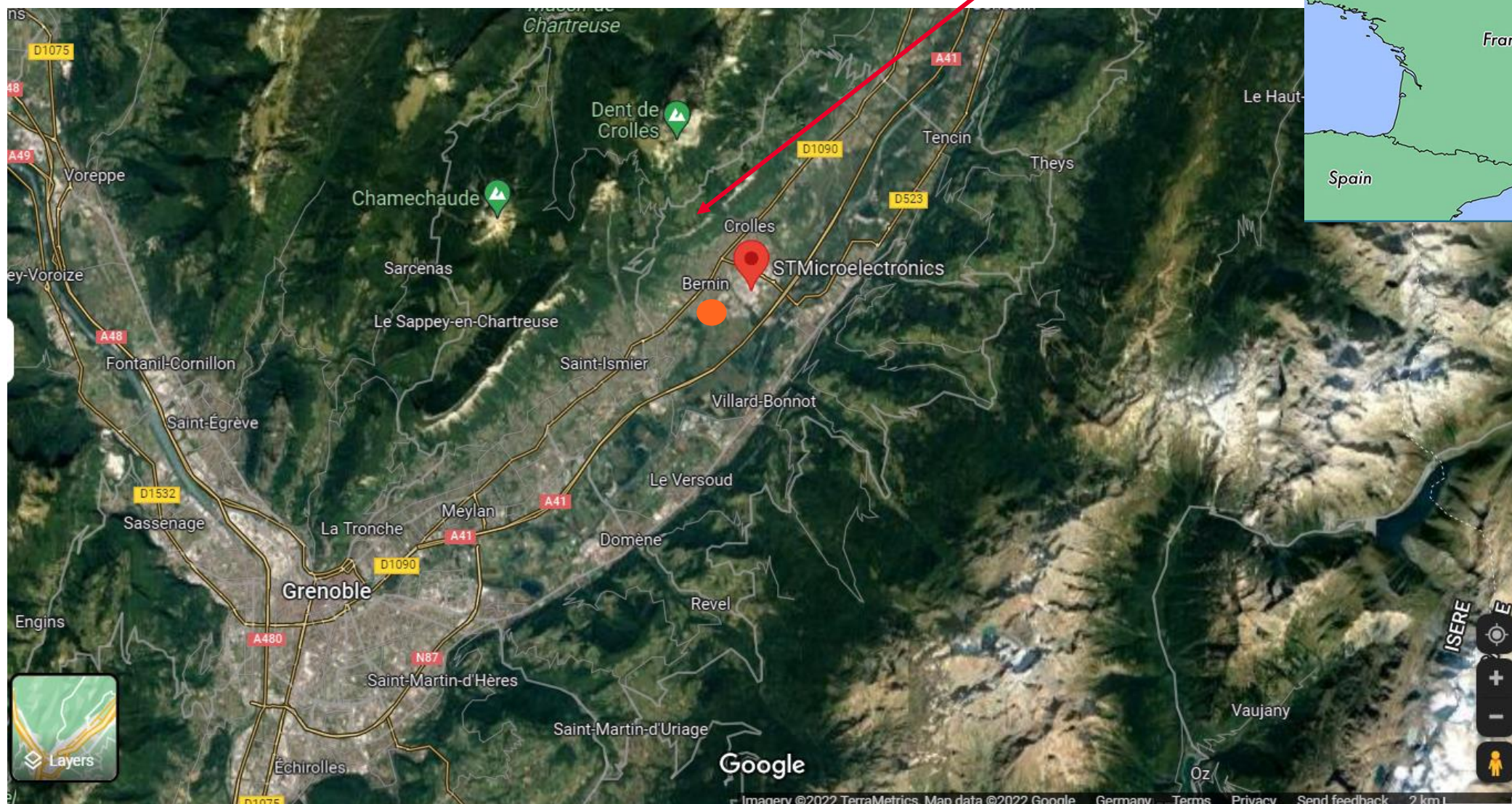


Next public workshop:
Nov 2022 to be announced at
www.nanobat.eu



Grenoble, Crolles, and Bernin

ST Microelectronics and SOITEC visit (Crolles and Brenin)



~50,000 employees in high technology enterprises

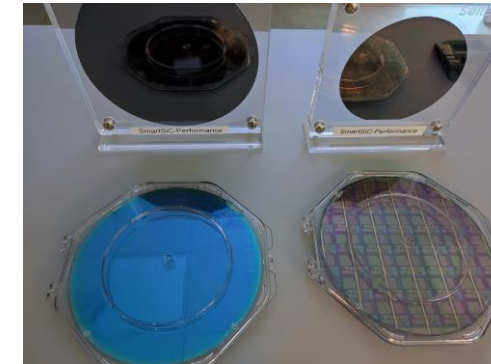
Grenoble won the EU green city award

ST Microelectronics at Crolles

STMicroelectronics facilities in Crolles



Silicon ingot



Silicon wafer before and after lithography

Visit to: ST Microelectronics state-of-the-art semiconductor chip manufacturing plant in Crolles, followed by the Soitec advanced semiconductor materials processing facility in Bernin. Each site visit was about two hours and provided an opportunity to better understand the technical and scientific challenges for major European actors to remain competitive in a field of major strategic importance for European autonomy.



Main topics presented in different sessions on 27th – 29th June:

- **Twin Green And Digital Transition**
- **Industry-Academia Collaboration Under European**
- **Knowledge**
- **Green Manufacturing**
- **Key Technologies for Future Society and Competitiveness**
- **Safe and Sustainable-by-Design**

Advanced materials are the backbone and source of prosperity of industry (vision of materials 2030 initiative)

- ❖ We had a booth at the circular economy during the three days at the sustainability village
- ❖ We gave a short presentation on NanoBat and Keysight labs results. The local TV was around and French minister of industry

Attendees:

- Roughly 150 attended the event.
- Grenoble city mayor invited for a speech and a cocktail event at the city hall
- Strong participation from the EU, e.g. EU managers, and several project officers (Jürgen, Veronika, Lucia, Veronique,).
- Representatives from invited EU projects (NanoBat, Teesmat, Lisa, EMIRI, AMIRES, ...)

Industry and SME:

- Manufacture ETF, ARCA, PhotonDelta,
- QWED: RF and modelling SME
- Research and universities:
- Fraunhofer

Our booth for NanoBat project coordinated by Keysight

KEYS Field Fox demo with GHz resonator from QWED and prototypes from Labs Linz and other NanoBat partners



From left to right: Nawfal, Gerald, Malgorzata Celuch (QWED), Ferry, EU officer Veronika



Pouch cells from AIT pilot line

We got several visitors and contacts and had good discussions on battery technologies, EU roadmap and potential collaborations



A manger at LEITAT, Sara Vinklatova. (Barcelona research center)

ESRF: The European synchrotron, head of business development (Ennio Capria)



Ferry providing suggestions to three EU officer ladies with methods to make the EU leading and developing technologies for a sovereign Europe. Left to right: Lucia Fernandez Macia Victoria Leroy Veronique Would Ebongue

Thank you!



Gerald Kada at the
Museum de Grenoble,
caught by a bear...

At SOITEC in Bernin holding a
silicon ingot head

