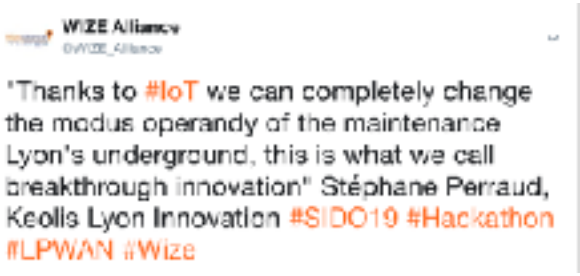
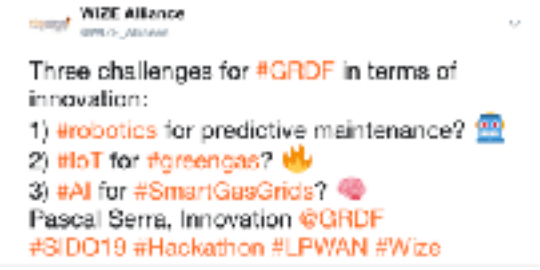
Be Wize IoT Challenge #SIDO19

On April the 10th, the Wize Alliance and AllWize co-organised a hackathon at the SIDO in Lyon. At 8:30AM, participants were already in the starting blocks!

The 66 makers had to team up and solve GRDF and Keolis Lyon challenges, knowing:
1) The maintenance and securing of gas infrastructures,
2) The improvement of energy efficiency in Lyon's underground.

Participants had the chance to get information directly from high level executives from the two companies. Stéphane Perraud, from Keolis Lyon explained challenges in Lyon's underground followed by Pascal Serra from GRDF regarding gas infrastructures.





Teams had exactly 8 hours to create an innovative and viable IoT application using the Wize technology. Quite a challenge! Candidates have been accompanied along the way by technical teams from AllWize as well as experts from the two sponsoring companies to make sure they would create an application fitting their needs and technical specificities.

The Wize technology benefits are its bidirectionnality (devices can be updated over the air), its very low battery consumption (lasting up to 20 years) and above all its deep indoor radio penetration. On the contrary, the technology is not adapted to moving objects.

Candidates had different backgrounds, from students in graphic design to startups in the IoT sector and big IT corporations, this mix of profiles enabled a wide variety of IoT applications. Now let's see what they created!

Keolis Challenge: energy efficiency as the main source of innovation

Most applications were related to carriage's air compressors leaks. Air compressors are used to open and close doors of the metro. Leaks are usually unnoticeable for the maintenance team but are at the source of a lot of energy loss. Some teams have used pressure sensors to sense leaks while others have used noise and vibration sensors to address such issue. The main goal being to do predictive maintenance and avoid to repair when broken.

Another use case seen for the metro was to detect pneumatic leakages in carriages to reduce energy consumption and handle traffic evolution at the same time. For this, the team has developed an app using pressure, accelerometer and temperature sensors. Once again, the goal being to do predictive maintenance to reduce intervention time and make sure that the metro is close to the 100% usability.

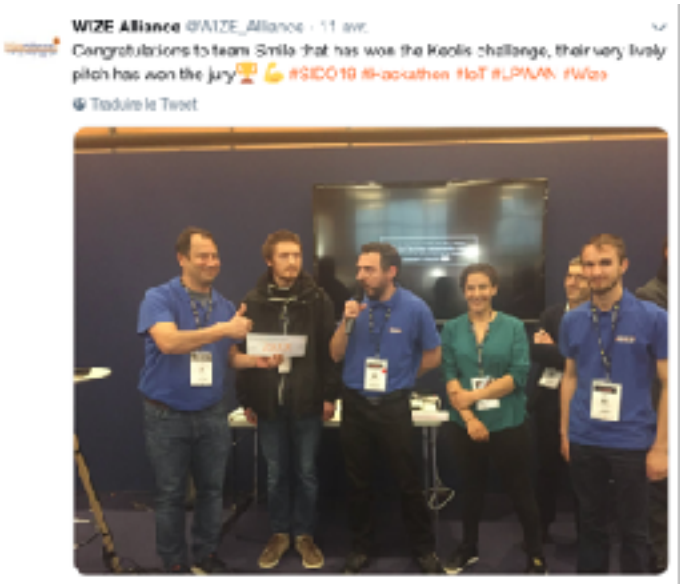
GRDF challenge: need for more security is the key!

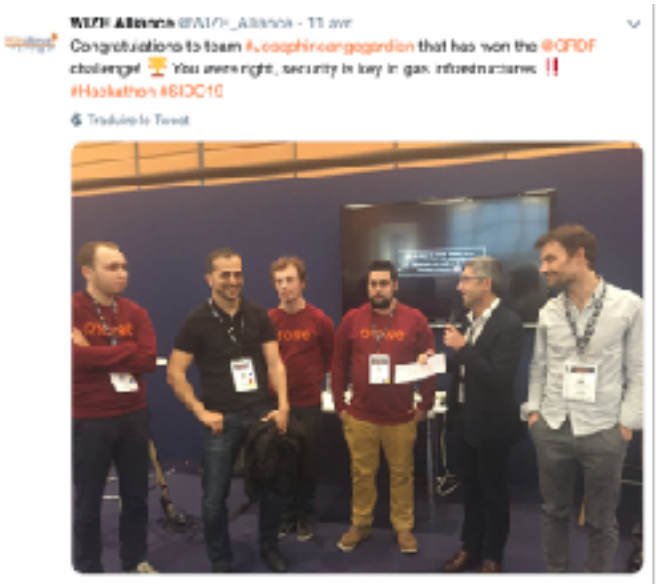
One use case was created to anticipate biomethane production growth and optimize gas purchase prices thanks to a combination of a gas sensors to check to production and AI to anticipate gas production. This solution was meant to enable GRDF to reduce the chance of buying gas from external entities.

A particularly interesting use case used CH4, CO and pressure sensors to check leaks on GRDF network. In case of leaks, inhabitants around would be automatically warned with a loud siren and beeping lights to escape the surroundings while fire fighters would be also automatically contacted to secure the area.

Another team, made an interesting parallel with the two companies using Keolis buses connected to GRDF's infrastructure to check on a daily basis the gas network for leakages. Network checkups for gas leakages is usually done 3 times a year while with this solution, gas infrastructure could be checked 10 times a day.

The two winning teams have managed to not only create a viable IoT application, pitch their solution brilliantly but also were proposed solutions that could really be used by GRDF and Keolis Lyon!





Some awesome feedbacks!

"I would like to thank the organisers of this hackathon that have managed to make it as technical as possible and that's what we love about hackathon!"
Jean-Francois Monteil
Member of the winning team
of the GRDF challenge

"This fifth hackathon was the best the SIDO hosted since it's creation and I believe it is thanks to the involvement of experts from GRDF and Keolis Lyon that have helped makers to create the most useful IoT applications possible"
Paola Jesson
Co-founder of SIDO

Alice Caubriere
Wize Alliance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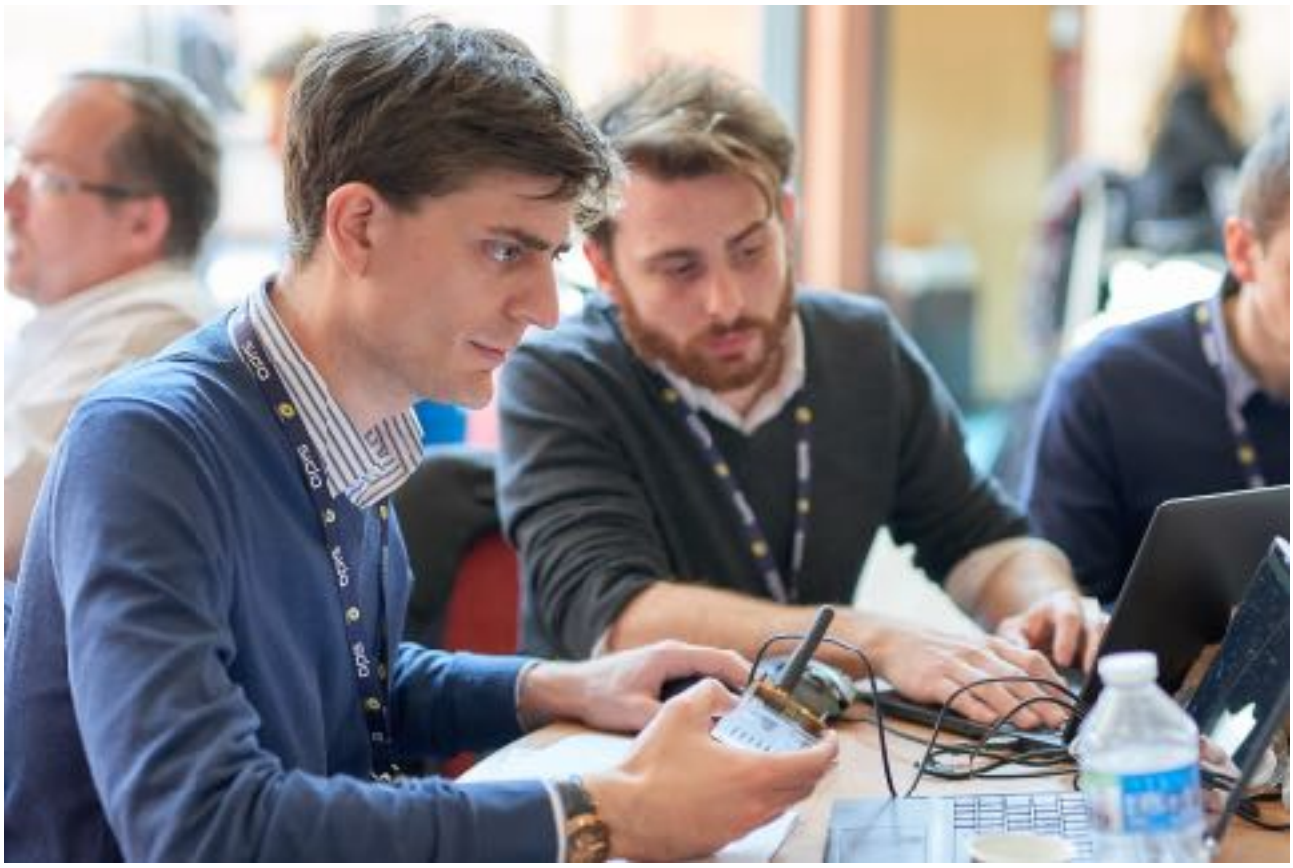

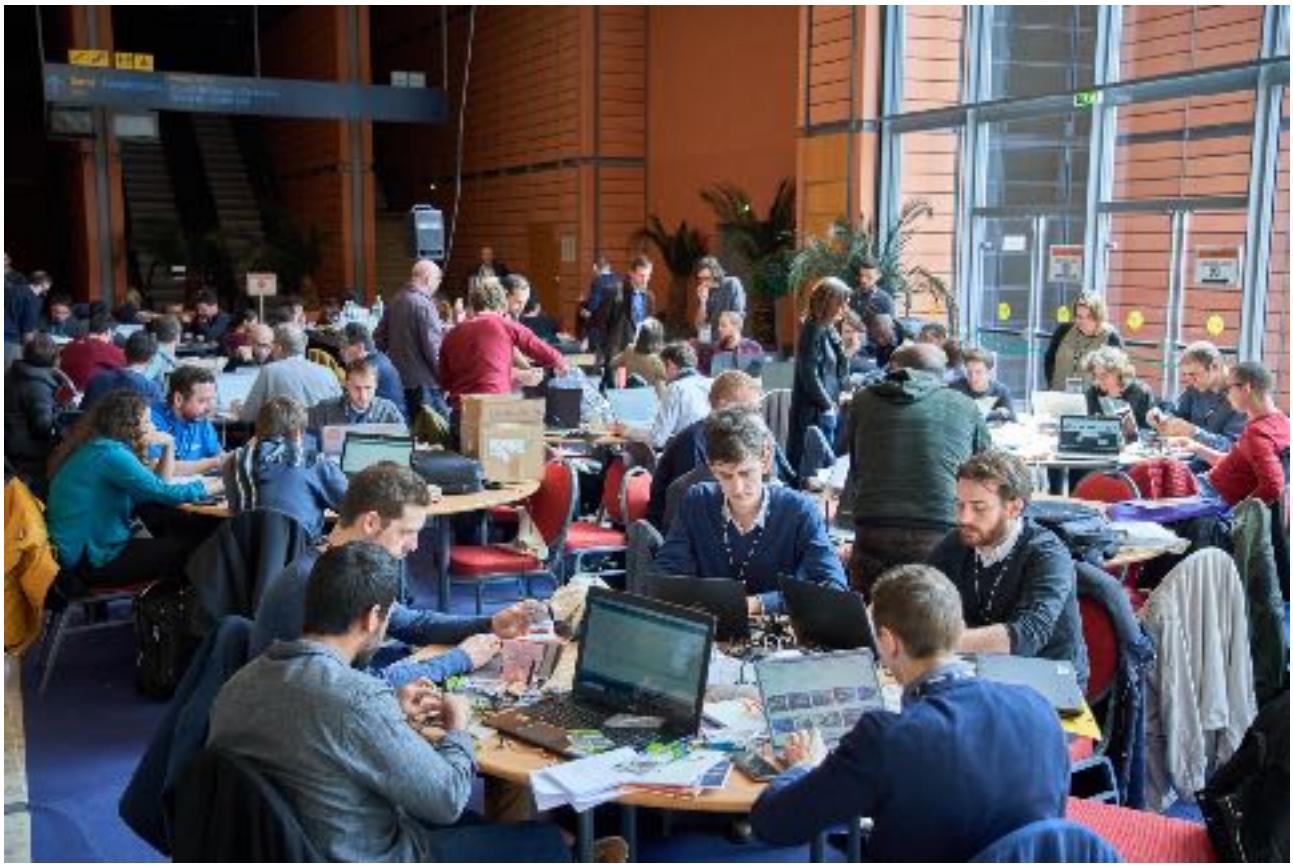

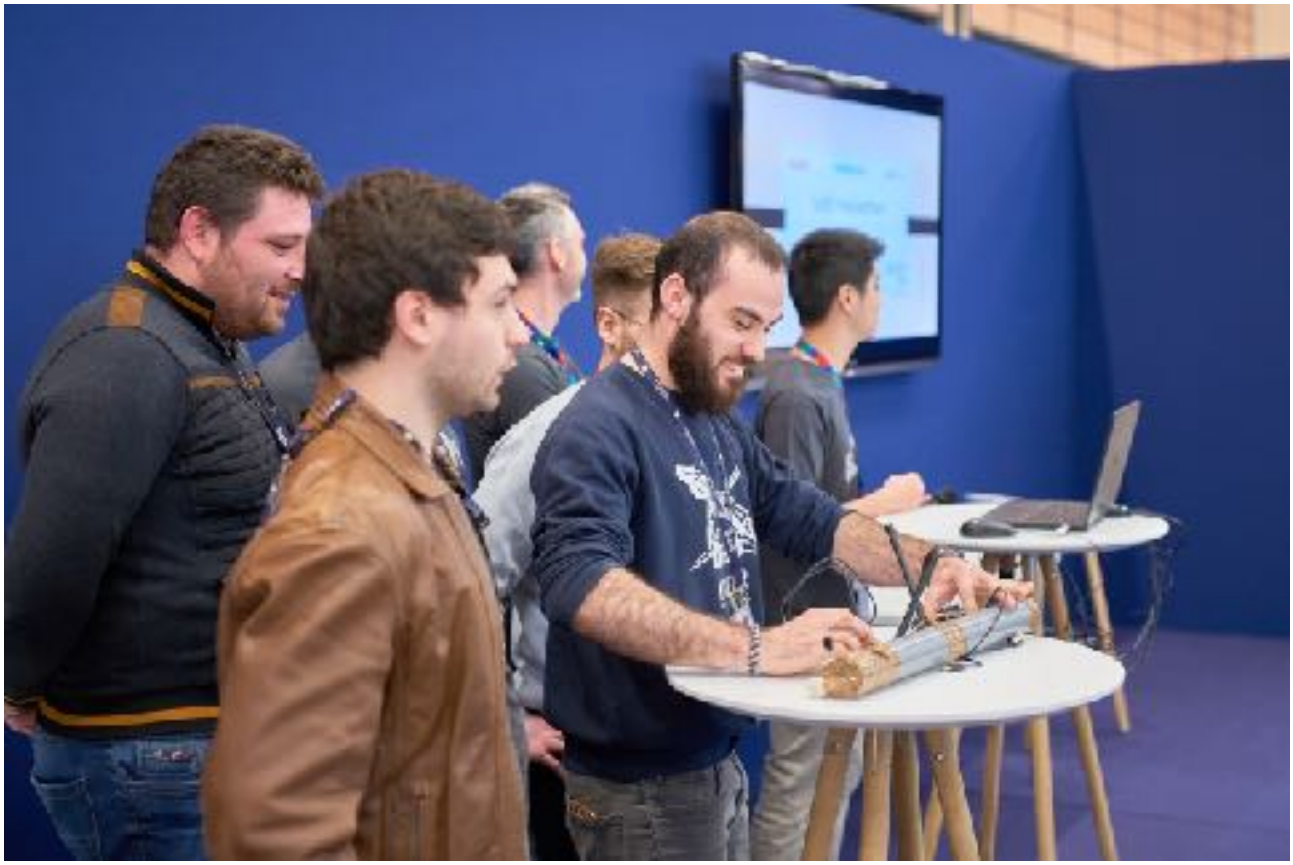

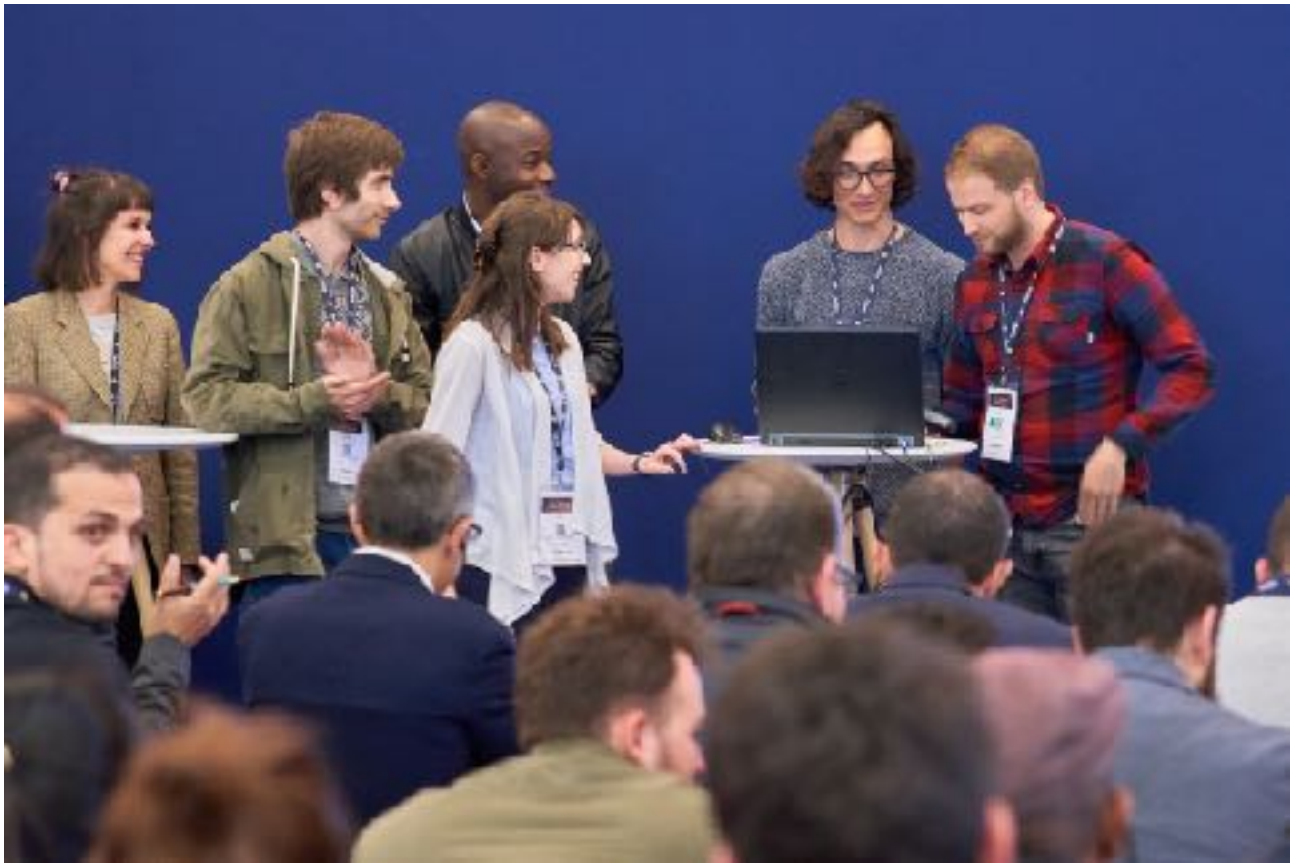

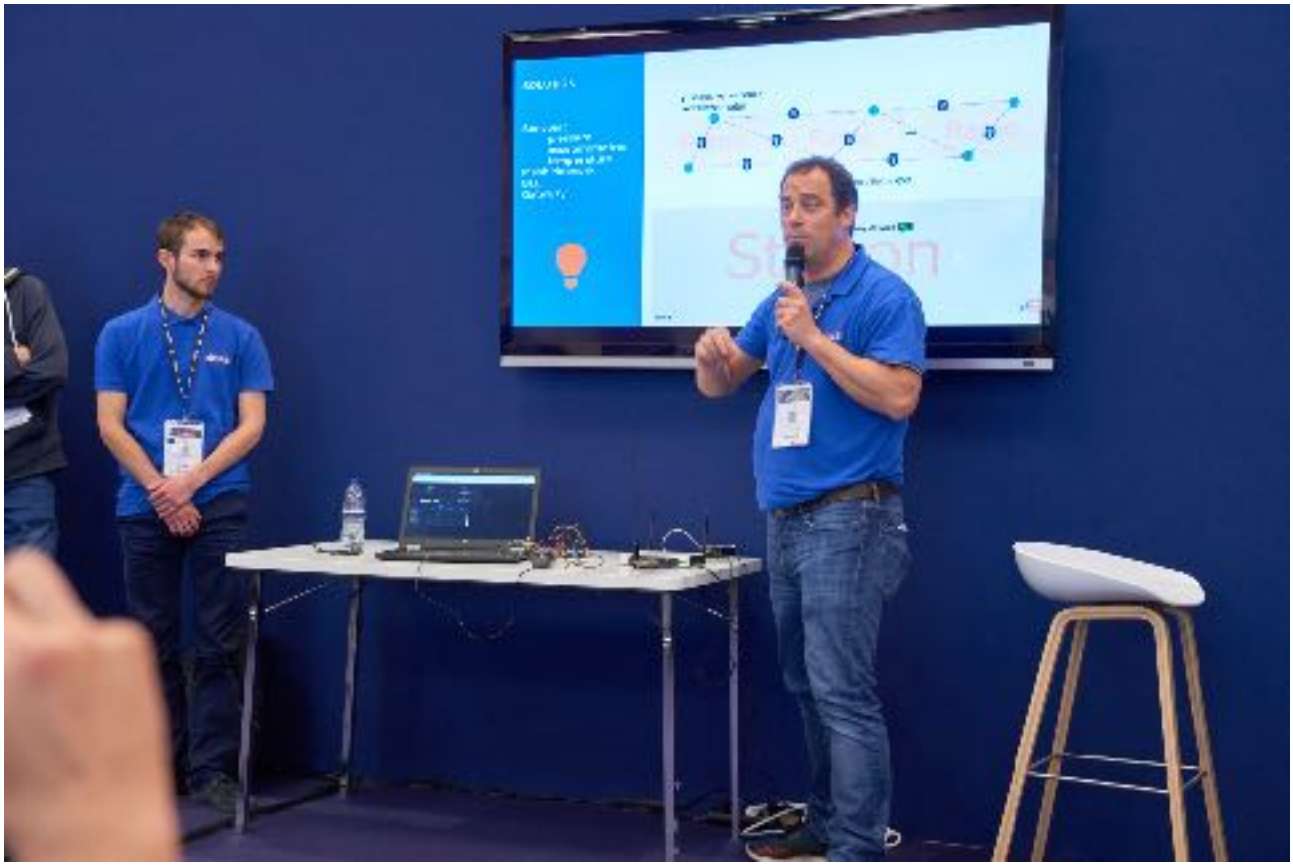

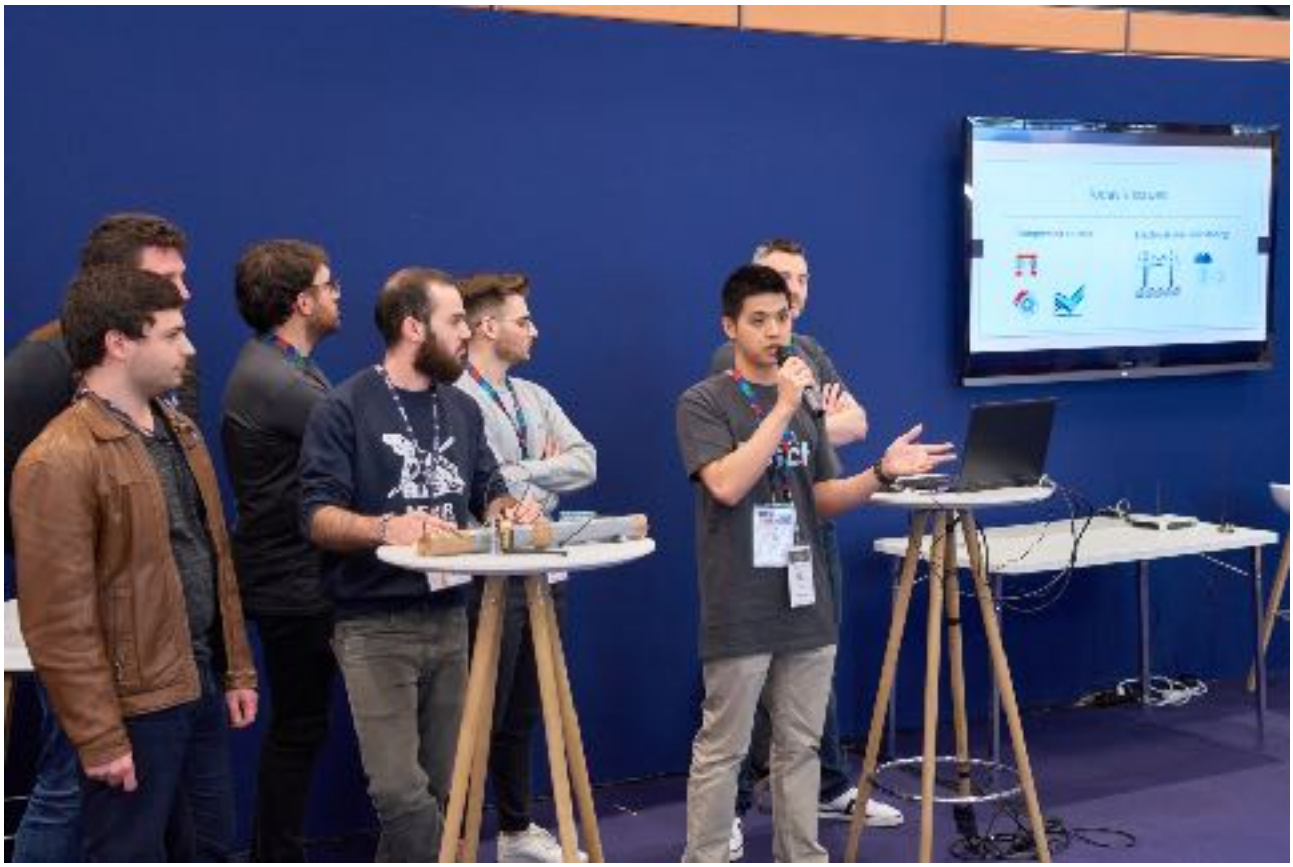

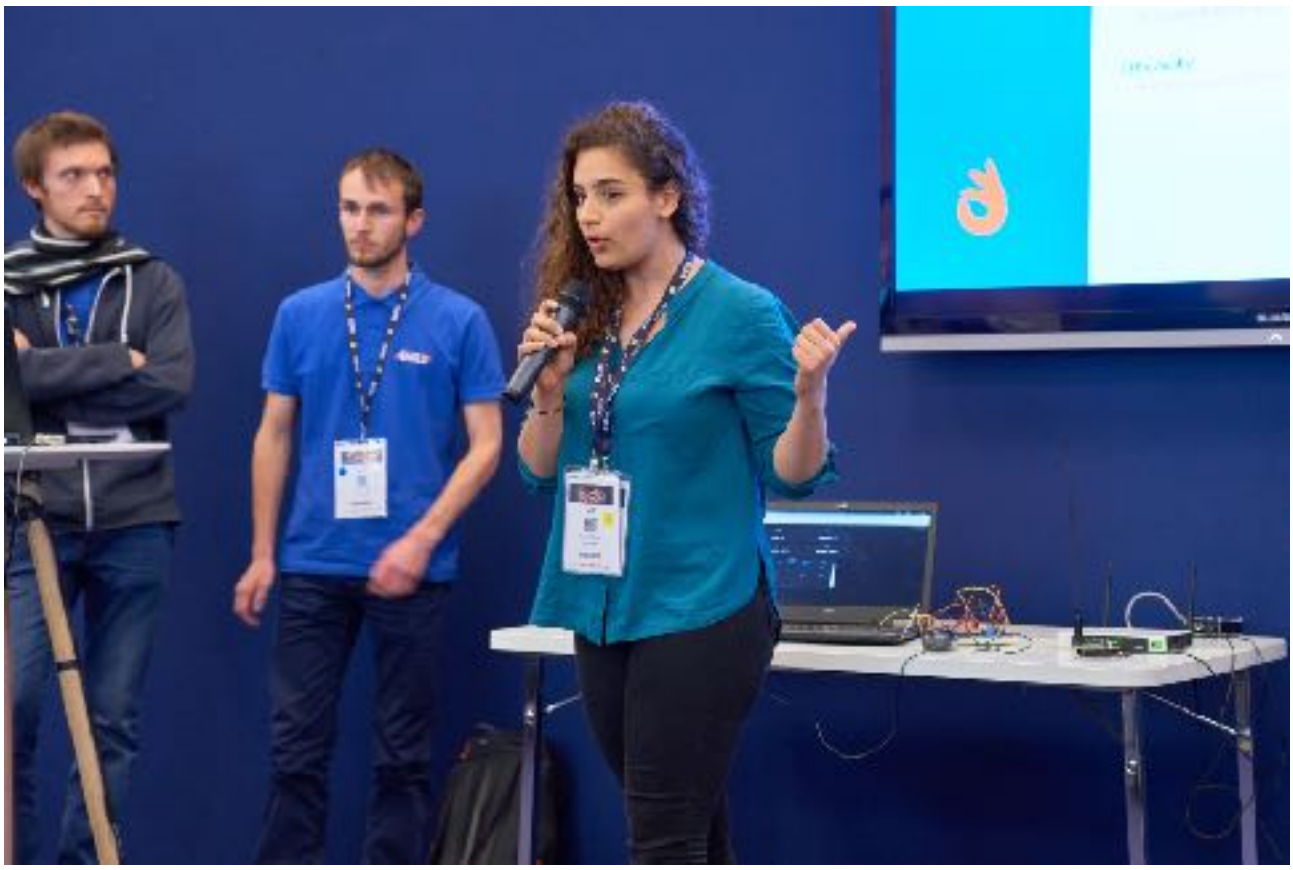

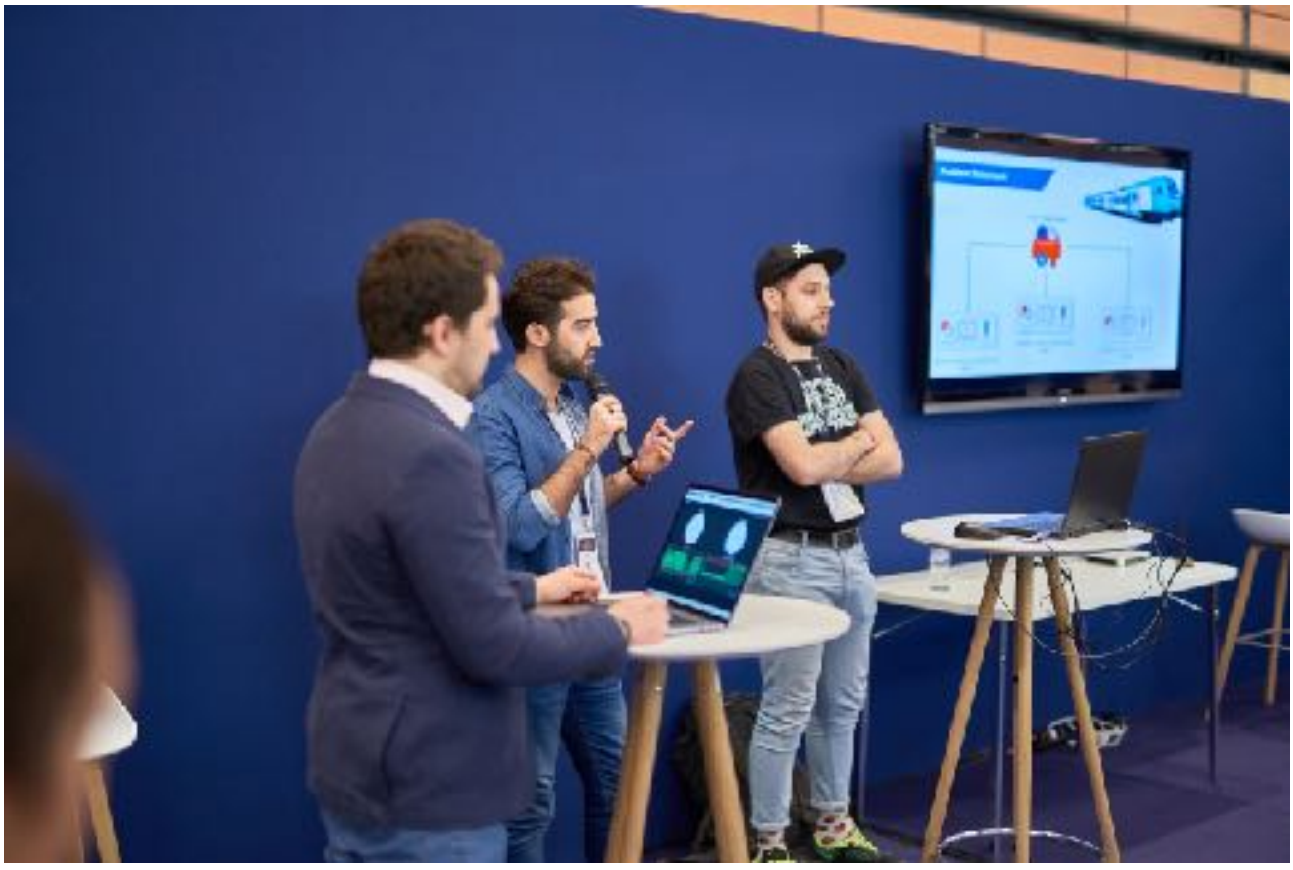

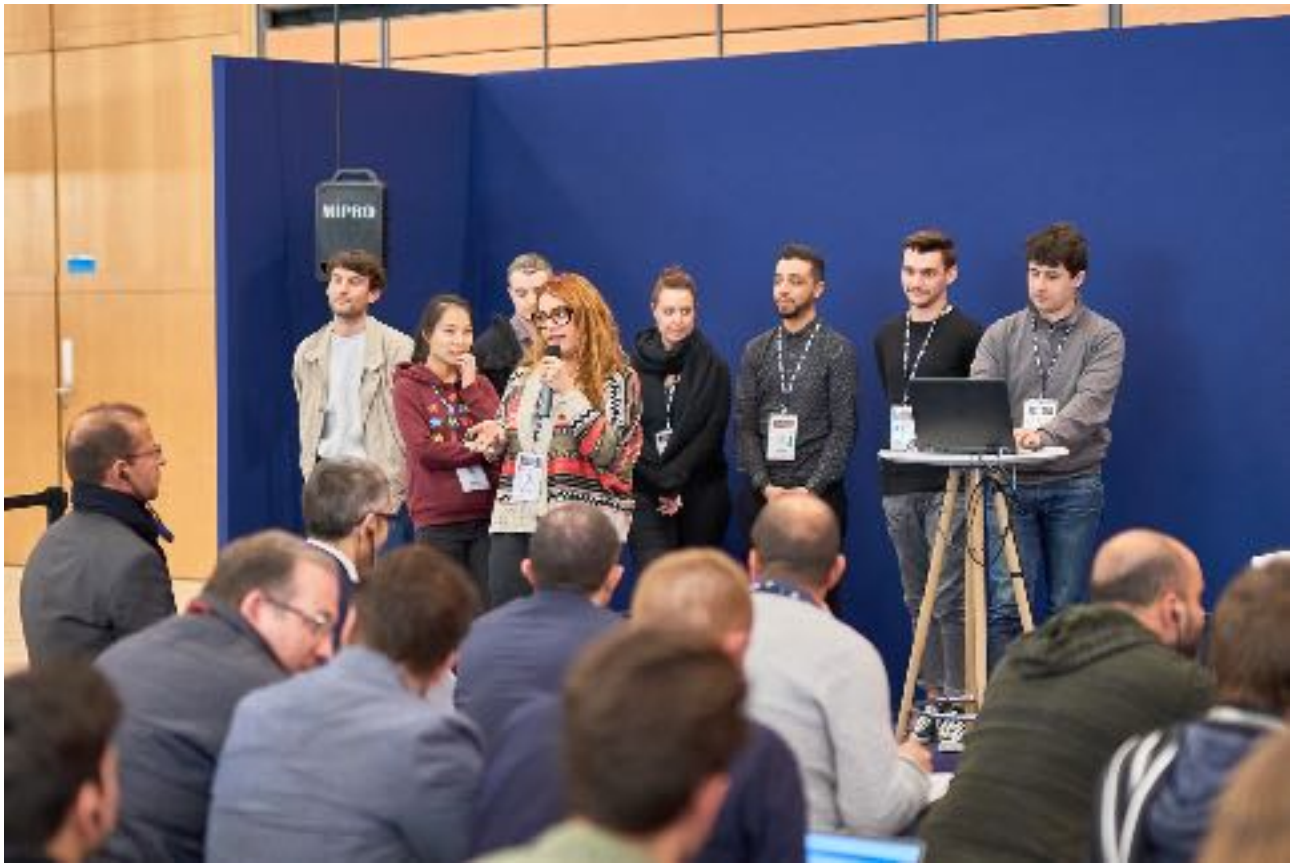
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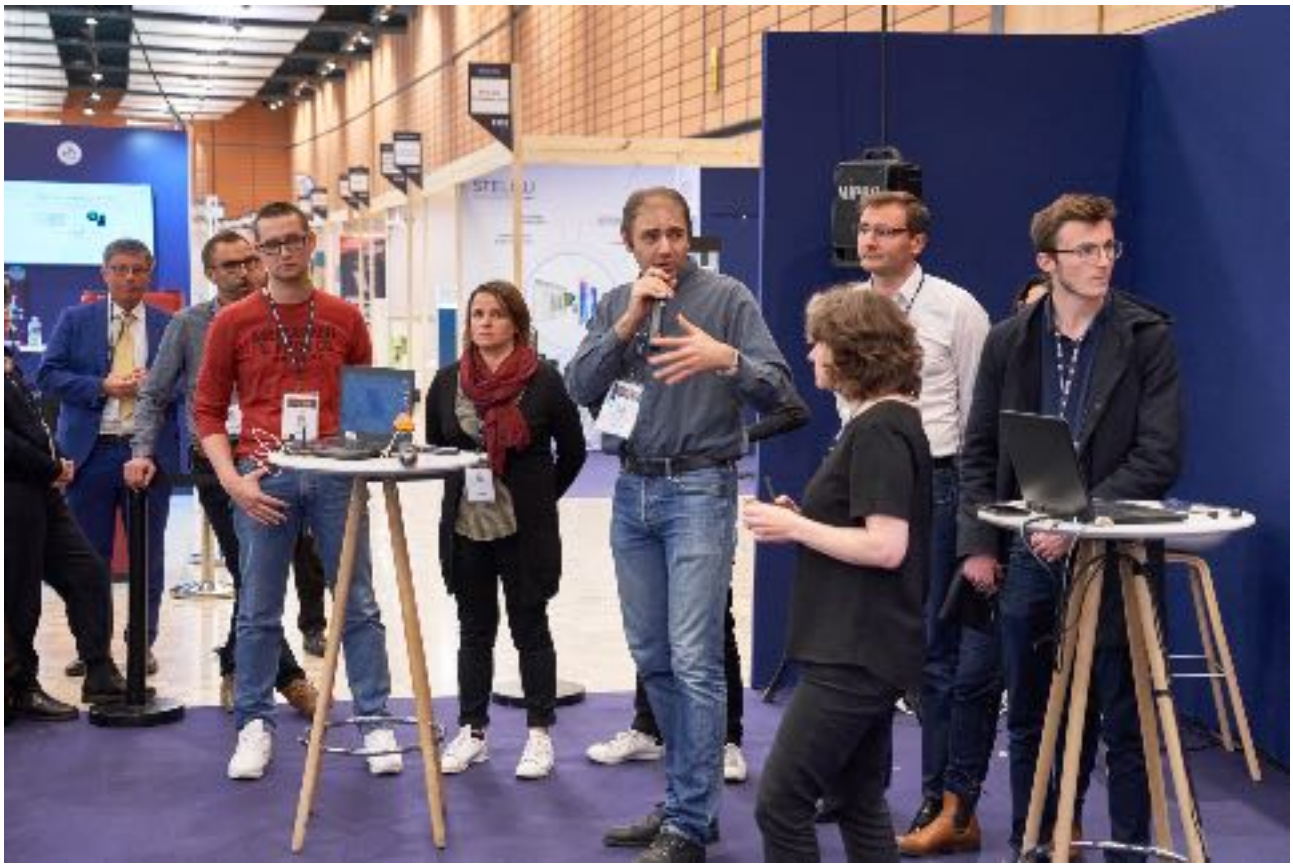

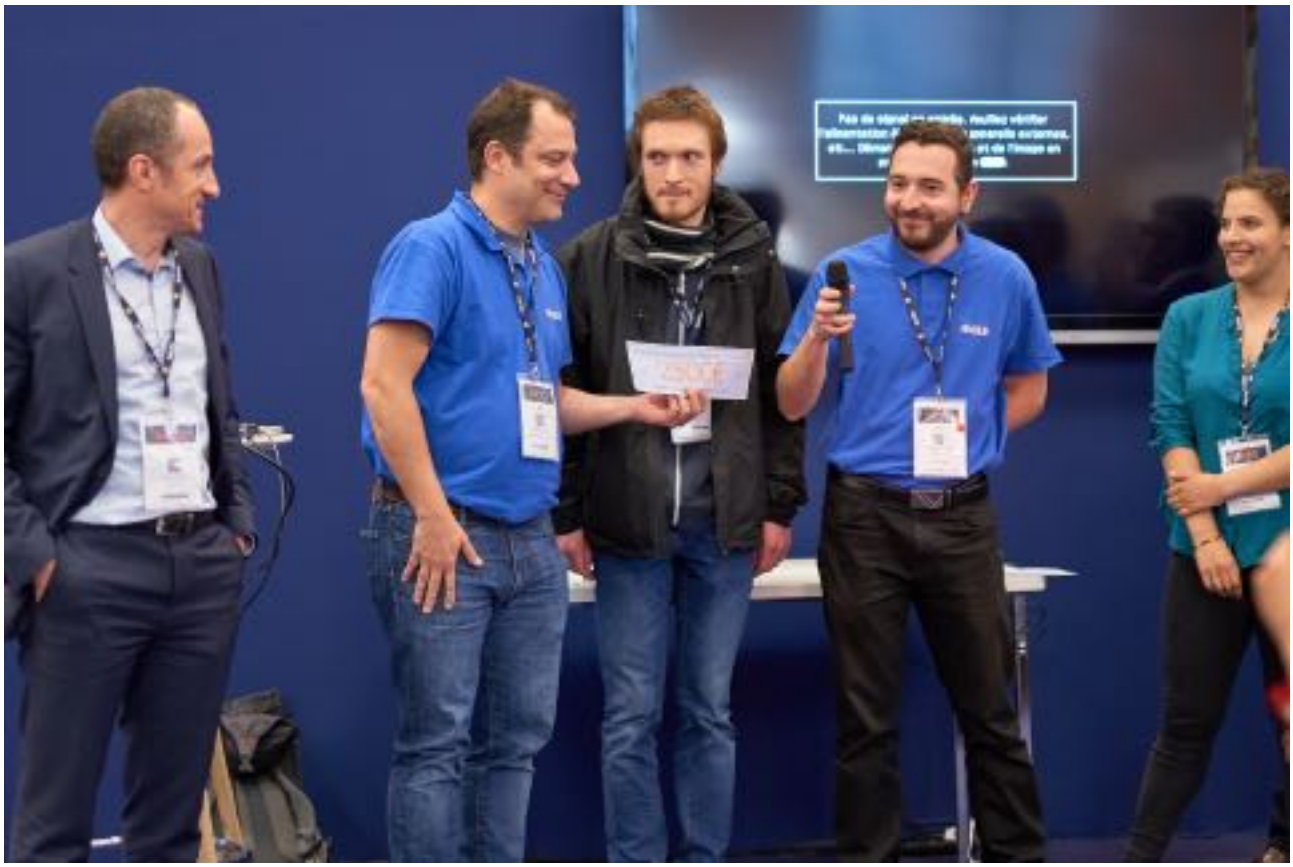

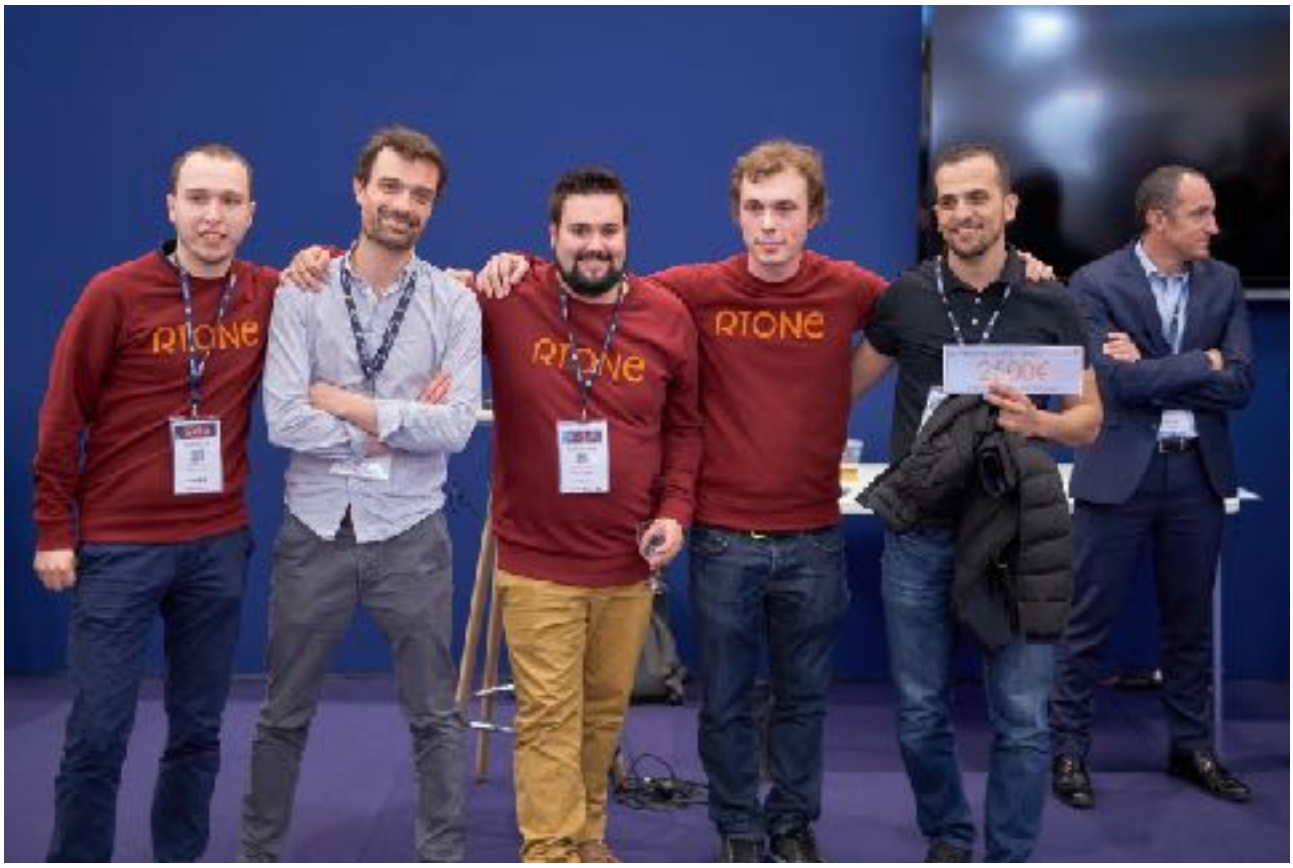

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