

## AUSY'S IMAGINE THE FUTURE CHALLENGE

**Updates on Roll'n'Reload, the project for designing a wheelchair capable of producing and storing electricity and the winner of Imagine the Future 2016**

In June 2016, the project *Roll'n'Reload*, designed by students from ESILV (Ecole Supérieure d'Ingénieurs Léonard de Vinci), won the "Imagine the Future" challenge. This challenge was organised by AUSY, an international consulting group focusing on advanced technologies, as part of its Corporate Social Responsibility (CSR) initiative. Students from all over France were invited to submit an innovative project that responded to a challenge in sustainable development.

For their project, the ESILV students designed a wheelchair capable of producing and storing electricity. Energy is produced through the rotation of the wheelchair's wheels and stored via a battery secured to the wheelchair. This invention would make it easier for disabled people to access electricity. For example, they could recharge their phone whenever they wished.

**AUSY unveils the project's progress, which has taken a new turn...**

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Nine months after its launch, the *Roll'n'Reload* project has advanced very well. **The five ESILV students have overcome the biggest difficulty of their project:** producing and converting enough energy to power a USB drive. As part of the diverse tests undertaken to resolve this challenge, the students have completed many trials with a Peltier module (a small device that creates an electric current). When the first solution did not succeed because it was too costly for the amount of energy produced, the group of students then turned towards another option, investing in a wheel with integrated dynamo. Through this approach, the wheelchair's wheel can create a current with the electromagnetic effect.

"We have created an electric installation divided into two distinct parts. One part manages the electric current, while the other part stores and then uses the energy produced. By connecting all parts of the installation, from the wheel up to the phone, **we have succeeded in charging a cell phone,**" Victor, a member of the Roll'n'Reload team, explained to us.

However, at this stage, **the energy produced is only efficient in the moment**, while the wheelchair is in use. In fact, the students have noticed that the stored electricity did not allow the chair to fully recharge a phone. Therefore, the next step will involve doing new tests to identify the reason for this malfunction and to resolve the problem.

On another note, **in February 2017, the partnership between AUSY and the ESILV students also turned a new page when three students from EDHEC Lille joined the group, bringing a new dimension to the project.**

The Lille students, who had a similarly-themed project assigned to them during the school year, wanted to work on a project with a CSR dimension about a wheelchair. During their research, they discovered *Roll'n'Reload's* project and decided to do everything possible to join the project.

The EDHEC students got in touch with the ESILV students to discuss promoting their project through environmentally responsible communication techniques and methods.

**AUSY was delighted by this fresh momentum and, as a result, offered a tripartite partnership to the students.** The Group will give them personalised support for the year to come. In return, the students must carry out their missions successfully.

This new partnership promises significant progress...

Stay updated on *Roll'n'Reload* by heading to AUSY's Facebook page:

<https://www.facebook.com/Groupe.AUSY>

**Press contact:**

Marie-Caroline Cardi  
01 56 88 11 13 - [mccardi@actifin.fr](mailto:mccardi@actifin.fr)

**About the AUSY Group**

AUSY is an international Consulting and Engineering firm in Advanced Technologies with a business model based on innovation and complementary services between its 2 core activities: Information Systems and complex Industrial Systems. In 2015, AUSY reached a turnover of €394.3million and had employed more than 4,500 personnel at over fifty locations in Europe, the United States and Asia.

AUSY is a key partner for large-scale project steering and a primary support for large international companies. The Group offers a comprehensive service package which combines consultancy and expertise, from the production of applications and systems up to the outsourcing of activity on-and off-site.

Nominated for the Prix de l'Audace Créatrice for the last two years, AUSY brings support to many innovative or humanitarian projects. AUSY operates in various activity sectors:

- Health
- Telecommunications and media
- Aerospace
- Space industry
- Transportation
- Energy
- Defence
- Banking, insurance, finance
- Governmental and European institutions

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