The INSA Lyon's digitalization strategy - SUMMARY

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Digital technology is deeply changing all areas of society, profoundly transforming our lives in terms of work, education, health, leisure and access to information. This digital transformation generates major strategic challenges for companies and organizations, as they increasingly need to integrate new processes, new tools and new expectations from employees, customers and partners. These developments increase the need for engineers and, for engineers, the need for new skills to master digital tools, particularly in design, modelling and data analysis activities, and their impact.

The digital transition has therefore been placed at the heart of INSA Lyon's Ambitions 2030 strategy. It is one of the 5 major pillars, alongside the energy, environmental and ecological transition, the social transition, the business model transition and the institutional transition.

INSA Lyon's digital transition has 3 main ambitions:

- Become an institution that is visible and recognized as a key digital player;
- Implement a digital approach to support our core activities and our community;
- Develop a responsible, sustainable, inclusive and collaborative digital environment.

On the first point, INSA Lyon already offers a wide range of courses, through departments that are highly specialized in the digital field - such as the Computer Science, Telecommunications and Electrical Engineering departments - but also through digital contents that are included in all our teaching programs. However, we have decided to significantly strengthen this digital education through a profound transformation of our training, in order to maintain our cutting-edge expertise in this field and firmly establish a transdisciplinary approach.

This demanding approach implies a major cultural change within our institution, both for teachers and for all technical and administrative staff. We need to rethink our teaching priorities, break down the barriers between disciplines, go beyond the historical thematic fields, develop new cross-disciplinary skills and build legitimacy in new areas for the teaching staff.

In this way, we are developing our teaching programs to meet both socio-ecological and digital challenges. We are convinced that these two issues need to work together. They are in fact the two major factors accelerating history and changing our societies.

More specifically, the digital training transformation program is built around 4 main pillars: the fundamentals of computer science; digital computing, particularly for modelling the physical world; data science and AI, from data acquisition to data analysis; and the environmental and social challenges of digital technology.

Our commitment to digital issues is also supported by our research activities. We have around ten laboratories carrying out work in this field, as well as international centres such as IRYXIS, the International Research and Innovation Center in Intelligent Digital Systems supported by INSA Lyon, the University of Milan and the University of Passau. IRIXYS currently brings together nearly 50 researchers in digital technologies such as cognitive computing, Big Data, cybersecurity, privacy protection and distributed and mobile systems. On these different topics, the IRIXYS Centre coordinates a wide range of activities: research projects, an international doctoral college, international double courses (Masters and Doctorate level), lifelong learning, industrial partnerships with local SMEs and major international groups, academic partnerships, scientific popularization and communication initiatives.

Finally, we believe that, to be recognized as a major and influential player in the digital world, we need to build on a close and privileged relationship with the business world. We have therefore just signed a partnership agreement with Orange, one of the world's leading telecommunications operators. Through this partnership, Orange is committed, alongside us, to the training transformation at INSA Lyon as part of a program called Convergences. This program provides financial support to pay the teachers involved in this approach and the experts who work with us. It also provides us with companies' vision about profiles and skills they need to carry out their own transformation to raise socio-ecological and digital challenges.

As I mentioned earlier, the second part of our digital strategy is to promote digital uses for our core businesses and our community. In this area, INSA Lyon is one of the very first major institutions in France to have deployed Pegase, a solution that integrates all of our institution's training courses, as well as their administrative and pedagogical monitoring. This deployment is associated with the transformation of our information system and the connection with numerous software programs in the areas of human resources, finance, accounting, accommodation and catering.

We are also implementing a Bring Your Own Device strategy. Through this approach, we want to offer all our students the opportunity to work digitally, 24 hours a day, wherever they are, with access to all the software and hardware resources they need to succeed in their course. This means not only having to provide a high-density connectivity infrastructure on campus, but also allowing students to install our software freely on their own digital environment. It's a project that impacts not only our teaching practices but also our infrastructure. It requires us to adapt our teaching spaces to facilitate the use of these personal digital tools during lessons, but also to support teachers in changing their teaching practices and accepting the fact that students can have their own personal equipment and make full use of it during their lessons.

With regard to our ambition to develop a responsible, sustainable, inclusive and collaborative digital environment, I would like to conclude by giving you a few examples of some initiatives we have developed in this area.

Last year, we have launched a Responsible Digital Week. During this week, we invite lecturers, doctoral students, students, staff and partners to talk about their work and initiatives in

responsible digital. These conferences, which are open to our entire community, provide an opportunity to discover innovative solutions in areas such as privacy protection, frugality, eco-design, inclusiveness, energy savings and the management of data centres in a responsible way.

In partnership with VINCI, our foundation's main partner, we have also set up a Responsible Digital Passport for all our students and staff. This initiative, which takes the form of online learning challenges, has three objectives:

- Understand and control the ecological footprint of their digital use;
- Adopt ethical and inclusive digital practices;
- Protect health and well-being.

Here is, in a few words and through a few examples, the strategy led by INSA Lyon to consider the ever-increasing role of digital technology in all our activities, to develop new ways of working, to increase our skills and to commit to a responsible digital approach.

Thank you for your attention.