





Press release, 6 March 2018

Inria, Telecom ParisTech, Telecom SudParis and SystemX are signing a framework agreement to co-ordinate their Blockchain research activities

This framework agreement, signed on 6 March 2018 in Paris, actualises the creation of the BART (Blockchain Advanced Research & Technologies) joint research initiative: a first in France in the Blockchain field. About 30 researchers from four institutions are pooling their research expertise and activities to remove the scientific obstacles related to this disruptive technology under a common roadmap set for a period of six years.



Paris, 6 March 2018 – Inria, a research institute dedicated to digital science and technology, Telecom ParisTech and Telecom SudParis, two major engineering graduate schools and IMT (Institut Mines-Telecom) research centres dedicated to innovation in the digital world and SystemX, an Institute for Technological Research (IRT) dedicated to digital engineering of the future, are announcing the pooling of their Blockchain expertise today in a launch event at Telecom ParisTech in accordance with a framework agreement formalising the "BART" (Blockchain Advanced Research & Technologies) joint research initiative. It all started in late 2016 with the partners understanding there was a need to undertake scientific studies capable of feeding into several IRT SystemX projects in the future. So, the BART initiative was born out of this desire to unite an extensive research ecosystem in the Ile-de-France region – about 30 researchers – around a common roadmap to overcome the scientific barriers to Blockchain in keeping with societal and industrial needs, to promote a joint leadership, and to provide more information about their work. Up until now, all of the actors involved, have been working individually or bilaterally on Blockchain.

BART is currently the largest academic research collective dedicated to Blockchain in France. Researchers at Inria, Telecom ParisTech, Telecom SudParis and SystemX will remain affiliated to their institutions, but will work together according to a common roadmap structured around 6 objectives: theoretical models, scaling up and monitoring tools, security, architectures, data confidentiality and economic models/regulation.

This framework agreement has been signed for a period of six years. In the first phase, at least 4 theses will be funded by the IRT, SystemX, managed by researchers or lecturer-researchers at Inria, Telecom ParisTech or Telecom SudParis. The first theses were started in early 2018 and will be extended from September to meet the challenges of the IRT's industrial partners.

BART will implement scientifically-led joint actions within its ecosystem, for the purpose of bringing together initiatives led by each of its actors (exchange days, seminars, tenders for start-ups, and special sessions of international conferences) and also launching new actions.

Finally, the results obtained as part of the BART studies will benefit, in terms of development and distribution, from the amplifying effect of the influence of the institutions involved and the associated ecosystem, particularly industry. Since late 2016, the IRT SystemX has brought 11 academic (including Inria and Telecom ParisTech) and industrial partners together around a BST (*Blockchain for Smart Transactions*) research project, aimed at boosting Blockchain's potential in the concept of digital trust and in developing the necessary requirements for its application in the development of new uses, particularly in the automotive, energy, logistics and insurance industries. From a technical point of view, this project is working on the development of a modular digital platform enabling the instantiation of cross-sector use based on Blockchains. The IRT also includes, as part of its Start@SystemX programme, 3 start-ups (Evolution Energie, Keeex and Pack'n Drive) which are able to validate the scope of their technology based on real market needs together with the large companies involved in the BST project.

According to **Bertrand Braunschweig**, Director of Inria Saclay – Ile-de-France's research centre, "This new type of initiative for the IRT fits Inria's expectations perfectly. It allows researchers to work together with SystemX and with our IMT partners in very favourable conditions on a subject identified as key for the digital society. Our researchers, in addition to their personal contributions, will supervise four theses during the period of the joint initiative, or even more if some industries decide to invest further in the subject. We hope that the scheme implemented for Blockchain will be reproduced in other technical areas of common interest."







"This alliance builds on our academic expertise at Telecom ParisTech and Telecom SudParis (IMT), as well as taking advantage of the applications of the Teralab platform without our IMT group. Four years ago at Telecom ParisTech, we already started a network of scientific co-operation with leading European industrial facilities and academic institutions (in particular TUM [Technical University of Munich], Mines ParisTech, etc.) which we initiated research with in the context of theses or post-doctoral research. Nowadays, we intend to create an important synergy between these European partners and the BART initiative," says **Gérard Memmi**, Head of Network and Computer Science Department at Telecom ParisTech (IMT).

"We are convinced that pooling the research expertise of our four institutions will increase our actions and our visibility. As part of the IRT, we work with industry on scientific, technical and market issues related to developing Blockchain-oriented services. The development of industrial-academic relationships will be boosted even further by benefiting from close interactions with and trust in the scientific experts at Inria, Telecom ParisTech and Telecom SudParis," explains Eric Perrin-Pelletier, Managing Director at the IRT SystemX.

About Inria / Inria, the French National Institute for computer science and applied mathematics, promotes "scientific excellence for technology transfer and society". Graduates from the world's top universities, Inria's 2,400 employees rise to the challenges of digital sciences. With its open, agile model, Inria is able to explore original approaches with its partners in industry and academia and provide an efficient response to the multidisciplinary and application challenges of the digital transformation. Inria is the source of many innovations that add value and create jobs.

About Telecom ParisTech / The Telecom ParisTech Grande Ecole is one of the Top 4 Engineering graduate Schools in France. It is ranked in first place for its relationships with businesses. This public school guarantees excellent employability in all fields and has emerged as the number one engineering school in the field of digital technology. Its excellent teaching and innovative pedagogy places Telecom ParisTech at the heart of a unique ecosystem of innovation which is built upon the interactions and transversality between education, interdisciplinary research, its two business incubators and its campuses (Paris and Sophia Antipolis - EURECOM). It is rated A+ by AERES (Evaluation Agency for Research and Higher Education) and has received the Carnot Telecom & Société Numérique label. Its research covers the entire field of digital technology. Telecom ParisTech is part of IMT (Institut Mines-Telecom) and is a founding member of the internationally-renowned ParisTech network. It is to become the College of innovation through digital technology within Paris- Saclay

About **Telecom SudParis** is a leading public graduate school of engineering known for its excellent level in the field of digital sciences and technology. The quality of its programs is based on the scientific excellence of its faculty members and teaching methods focused on project management, innovation and inter-cultural knowledge. Telecom SudParis is part of Institut Mines-Telecom, France's leading group of engineering schools, supervised by the Ministry of Industry. It shares its international campus with Telecom Ecole de Management. The 105 full time professors of Telecom SudParis contribute to the education of 1,000 students including 700 engineer and Master students and 180 doctoral students. www.telecom-sudparis.eu

About the IRT SystemX / Located on the plateau of Paris-Saclay, the IRT SystemX is designed to be an accelerator of the digital transformation. Focused on the digital engineering systems of the future, its research projects cover the scientific and technological challenges of the industrial sectors of transport and mobility, energy, digital security and communications. They respond to the challenges faced by industrialists in the design, modelling, simulation and testing phases of the future products and services that are increasingly integrating digital technologies. Changes in the technologies and the need to integrate them mean that the new "Digitalisation" paradigm must be taken into account through a "systems" or even "systems of systems" approach. The IRT's 2016-2020 roadmap is built around 4 programs: agile industry, autonomous transport, smart territories and internet of trust. Today, SystemX has launched 31 projects, involving 83 industrial partners and 24 academic laboratories, and 265 staff, including 130 of its own resources.

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