



The ILEAnet scientific newsletter provides scientific news in the security research area. Published every two months, it is intended to highlight and promote the scientific work in the field of technology, human and social sciences. The scientific coordination within the ILEAnet project is led by Professor Patrick Laclémence.

### PORTRAIT OF RESEARCHERS

The ILEAnet project offers the opportunity to discover active profiles in university research.

### BIBLIOGRAPHY

Find here a recent bibliographical selection of scientific and technical resources related to the four main themes of the ILEAnet project: cybersecurity, terrorism, organized crime and migration.

### RESEARCHER'S TOOLBOX

ILEAnet provides tools and tips for researchers in order to help and support them in their scientific production and monitoring missions.

## PATRICK LACLEMENCE

### ILEAnet Scientific Coordinator

*Director of the ENSP research centre and Professor at the University of Technology of Troyes, authorised to direct research.*

More than 35 years after the fall of the Berlin Wall, while bankers continue to play what they call the "Global Player", the world has suddenly stopped with the COVID crisis. The era of hypermovement has been shaken by that of hyperconnection to networks. As events have unfolded, the jolts have subjected the human community to hypersensitivity, leading to tension over freedoms. When facing threats and crises, decisions turn to security. And if terror is the objective of terrorism, it generates extreme fear "in the heart" of populations. The trap set for democracies would then be to no longer question "free will"! Fears and anxieties reach our public opinions. They weaken vigilance and choices and put decision-makers at the "foot of the wall"!

For leaders, the first concern is the balance for freedoms in our living areas. Without taking up all the theories on the tension with security, European democracies are organising themselves to protect populations, especially the weakest among us. Security is then at the service of freedoms and not the other way round. This priority leads to a discrepancy with events. It means taking a step back from the immediacy of time to propose an appropriate response. And if the states have the public force, as Max Weber defined it in 1920, it takes shape within a very precise framework. The response must be "managed" in the face of violence or crisis. On the basis of this imperative, a virtuous cycle of time between practitioner and researcher can be sought for the benefit of the decision-maker. ILEANET's interactive community responds to this requirement for coordination of knowledge and skills. It capitalises on operational expertise and excellence in different scientific fields. By coordinating this research for operational purposes, the ILEANET consortium offers contributors the opportunity to be at the heart of European action, emotions and territories!



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## PORTRAIT OF RESEARCHERS

# Sandra Cerrato Moreno

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## Dear Sandra, could you describe yourself in a few words?

I am an inspector of the Spanish National Police. I applied for the Spanish National Police after a license in chemistry.

During my studies at the National Police Academy, I decided to continue working in the chemistry research thanks to a master degree program in Polymer Fibers and a PhD program at the University of Burgos.

During my master, I developed chromogenic and fluorogenic polymer-based chemical sensors able to detect explosives. Embedded in textile, these sensors changed color when detecting explosives. The follow-up of this work is the PhD that I am currently preparing. I am characterizing several polymers for personal and building protection. The aim is to improve the anti-blast and ballistic behavior of surfaces, by reducing the weight of the material. To this end, I'm carrying out tests on polymer-reinforced concrete structures, polymer-reinforced ballistic steels and polyurea-reinforced shields and personal protective helmets. My thesis supervisor is Professor José Miguel García Pérez, manager of the Polymer research group at the University of Burgos.

The University of Burgos is not specifically linked to the police or Law Enforcement Agencies (LEAs). But now that I work in both the Spanish National Police force and the University of Burgos, I am a link between these two worlds and I am trying to do different projects with the university. In 2019, I was assigned to the Innovation and Development Department at the National Police so today I am in charge of coordinating European projects, but my free time is dedicated to research.

**“The future of European security research will be more closely linked to research centres and there will be a more direct relationship.”**

### What are your plans for your research activity?

The field of polymer research is developing more and more because the vast majority of products used today are polymer-based. I already have in mind a new project which is to equip drones with sensors detecting explosives and alerting headquarters. I will also try to attend congresses whenever I can, in my spare time. I like to keep in touch with other researchers. My research team is currently preparing a proposal for a European project based on polyureas, for the protection of buildings, in line with my PhD work. Polymers are an interesting topic of research and I believe they are probably the most growing field in chemistry, as many everyday objects such as clothes, devices etc. are made of polymers.

### How do you perceive your role as a researcher and inspector?

Research is an important basis for society. Developments come from research centres. I like to create new useful things which improve the daily life. My role as Inspector for the Spanish National Police is like an intermediate level between the knowledge of the existing needs in the police and what I can help to achieve in my research work.

### How do you perceive European security research?

A lot of work is currently being done on research to improve security. But a more direct contact with universities would be necessary, so that researchers take into account the real problems that need to be covered. The future of European security research will be more closely linked to research centres and there will be a more direct relationship. I hope research centres will be set up directly within Law Enforcement Agencies to succeed in getting concrete results.

### According to you, what are the main differences between researchers and LEAs? How could we better make LEAs and the research world work together?

I have the impression that universities and research centres are sometimes disconnected with reality and with the needs of society. This disconnection between the urgent needs of LEAs and research is due to the fact that researchers are not aware of the needs of LEAs. We therefore need to have joint meetings between researchers and LEAs so that practitioners can explain their needs, highlighting operational constraints. Researchers would then be able to orient their research accordingly.

In the Spanish National Police, we have laboratories and the latest technologies to investigate crimes, but we do not have research centres that investigate other needs of the police. We have a limited innovation and development department. So, we need to work with academia, universities and research centres to meet police's needs. Hence, it is crucial to keep in touch with universities and companies, especially small companies, because they are working on things that can be useful for the police. Making the connection at the very beginning of the development is important to build an adapted product.

Even when researchers and agencies work well together, a major difficulty is turning a laboratory prototype into a real-life product: scaling up can be difficult to achieve. This is a challenge for national projects but also for European projects!

Thank you, Sandra, for your exchange!

Sandra is not only a committed researcher, a great law enforcement practitioner but she is also an active ILEAnet National Contact and a great example of what ILEAnet tends to achieve: a bridge to make the scientific and law enforcement communities work together on LEAs' needs.

**BIBLIOGRAPHY**

The ILEAnet scientific coordination team suggests a recent bibliographical selection of scientific and technical resources related to the four main themes of the ILEAnet project: cybersecurity, terrorism, organized crime and migration. Resources can be found in the [ILEAnet Knowledge Library](#). If you want to share a publication, please contact us at [ensp-ileanet@interieur.gouv.fr](mailto:ensp-ileanet@interieur.gouv.fr)

ILEAnet is collecting the most recent or relevant publications in the following areas, but does not necessarily endorse their contents.

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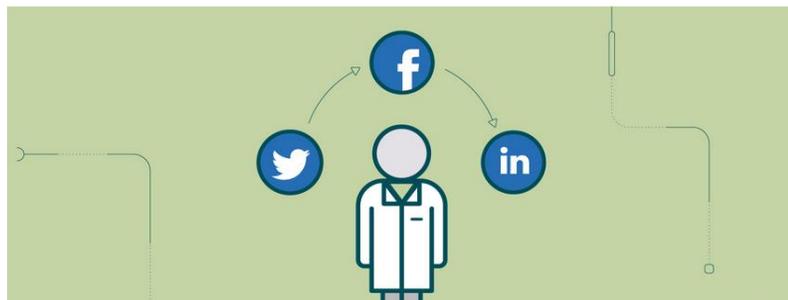
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## RESEARCHER'S TOOLBOX:

### I AM A SCIENTIST, WHY SHOULD I USE SOCIAL NETWORKS?



How can the social networks help researchers? What advantages do these networks have for scientists who are looking for information in their fields of study or even for academic research grants to fund their research? The tool of this newsletter will be dedicated to **scientific social media**.

The use of social networks has become unavoidable for over a decade and has impacted the way we collect, process, publish and read information.

The trend has been observed also in the research world and the presence on scientific social networks is becoming strategic for researchers. Indeed, scientists are aware that social media platforms are powerful tools to connect with researchers who share the same interests, promote collaboration, and enhance their scientific production and thus their digital reputation.

So what are the most popular social networking platforms for scientists? Undeniably we note [ResearchGate.net](#), [Academia.edu](#), [OrCID](#) and [Scopus](#) for research networking.

Some researchers also use [LinkedIn](#) or [Twitter](#) for public dissemination.

To go further on the subject, do not hesitate to look at the webinar below:



[https://www.youtube.com/watch?v=zptCKTN\\_6iw](https://www.youtube.com/watch?v=zptCKTN_6iw)

## CONTACT



You wish to publish? You are a researcher and would like to share your profile? You would like to have information about the ILEAnet project and the scientific coordination? Do not hesitate to contact us.

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