

### **ANTICIPATE, SUPPORT AND ASSIST**

Anticipating risks to prevent problems from occurring, supporting people when a difficulty arises, assisting our customers over the long term: for AXA, protection is an ongoing commitment. We work hard every day to build a stronger and safer society.

The three accounts presented here throw light on our business – protection. Three encounters with dedicated and enthusiastic people to find out what they do, understand their goals and difficulties, and discover their expectations, commitments and personal challenges. In other words: to find out why they have chosen to protect what matters most.



## PROTECTING INDUSTRIAL FACILITIES

Emmanuelle Chatreaux is a safety engineer with AXA MATRIX Risk Consultants, specializing in major industrial risks, mainly fire and explosion. Every day, Emmanuelle works with companies to help them protect their business activity, their assets and – most of all – their workforce. Whether advising customers on production facilities or storage depots, she identifies the risks at stake and the best way of managing them. With her determination and enthusiasm, Emmanuelle exemplifies both the technical and social aspects of her job, in which the desire to be convincing and the concern to safeguard jobs both play an essential role.

EMMANUELLE CHATREAUX
AXA MATRIX RISK CONSULTANTS
AN AXA CORPORATE SOLUTIONS SUBSIDIARY





## IN A WORLD OF MEN

I am a safety engineer advising on the prevention of and protection against major risks. I visit industrial sites and propose recommendations for improvement. This approach brings a dual benefit, as it reduces the likelihood that damage will occur for the customer, and improves the underwriting terms offered by the insurer. My main mission is to convince my customers of the relevance and efficacy of my advice. It's quite unusual to find a woman doing this work. When I turn up at the customer's site, surprise is often the first reaction. However, climbing up on the roof or testing fire hydrants and pumps doesn't faze me. And fortunately, as soon as we start talking about technical issues, everything quickly gets much easier. That said, as a woman engineer you need to have tremendous enthusiasm for the job. That's definitely true for me. I have also developed a strong taste for the culture of risk. It started some time ago, when I was a child: my father always told me not to forget to turn off the gas, or unplug the coffee machine!



I work part of the week at home, meaning I'm closer to the industrial sites I am responsible for. This also helps me achieve a better work-life balance. I have converted one of the rooms in my home into an office where I can focus on work, while remaining in constant contact with my colleagues. I devote time to my family – taking my children to school, for instance – without disrupting my work. There are also periods when I travel a lot, including visits to foreign subsidiaries of the groups I work with. That's part of the job: to form an opinion, you need to visit the sites and meet the people responsible for managing them.

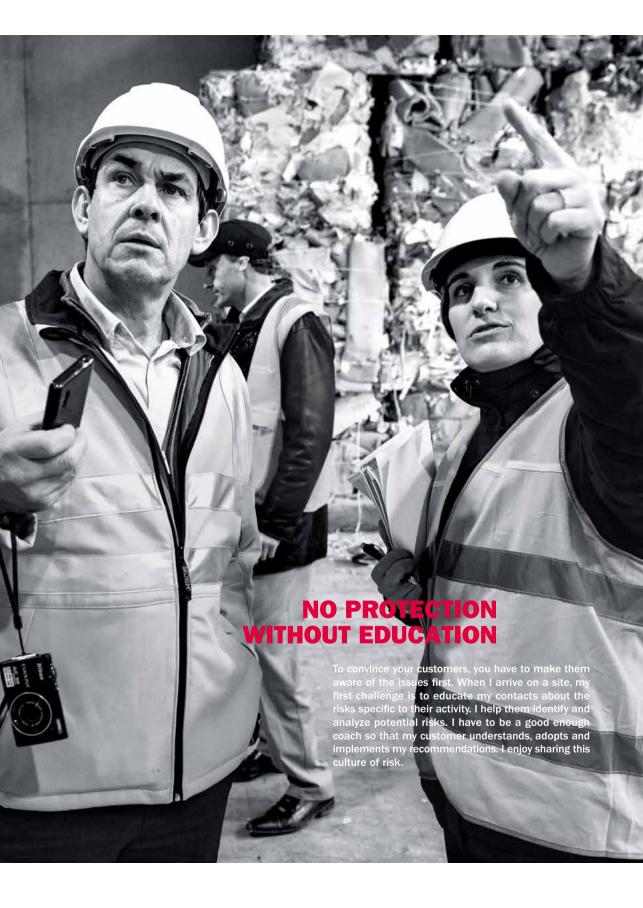




Every mission requires a very close analysis of the organization concerned. Taking a broad view is also essential, since a fire at a particular site will often have a more global effect on the company involved. I work in close collaboration with my customers. If I succeed in convincing them, we work together to adapt their organization and define the detection and protection system they need.









## INDUSTRIAL PARKS AND BUSINESS PARKS

In the context of the crisis we have experienced over the past few years, my action also has a social and societal dimension. Beyond the financial impact, a fire at a site will have many consequences on the industrial fabric, employment and dynamism of the surrounding region, and perhaps on the environment, due to possible water, ground or air pollution. For me, there's no such thing as zero risk – some risk is inherent in any activity. In my business, as in everyday life, you have to accept that risk is real and find the best way of dealing with it.



I take pride in playing my part to avoid human injury and environmental damage, preserve industrial activity and ensure that people keep their jobs. In the 12 years I've been doing this job, my enthusiasm has never waned. The techniques are constantly evolving and every company, site and contact is different.

One day, I received a call from a factory manager about an outbreak of fire at his site. I could really sense his distress. Since then, I know that everything I do upstream to avoid this type of call is absolutely crucial. By helping my customers, I am useful to a much broader community. This strongly aligns with who I am as a person, and what I believe in.







# PROTECTING A VITAL RESOURCE

Luciano Raso is a researcher. He is currently working on a post-doctoral project concerning water management on the Seine, with the support of the AXA Research Fund. The aim is to analyze, understand and anticipate rising and falling water levels to manage them better – and, if necessary, protect the city of Paris. His everyday tasks include observation on the ground, data gathering, mathematical modeling and discussions with various stakeholders. Through his mission to inform decision-makers, he helps protect the population and preserve our common good: water.

LUCIANO RASO
RESEARCHER WITH IRSTEA
SUPPORTED BY THE AXA RESEARCH FUND
SINCE 2013





Although strolling along the Seine is still one of the favorite pastimes of Parisians and tourists alike, the effect of climate change on the river is becoming increasingly visible. Fortunately, technological progress is contributing to better management of waterways.

Four reservoirs located upstream of Paris regulate water flow on the Seine. They store water when it is abundant and release it when water levels drop. Deciding when to store and when to release water from the reservoirs is a very complex exercise, based on data that is in part uncertain, with consequences that are not precisely known either. To predict these movements as accurately as possible, I use a hydraulic model that simulates water flow.

A mathematical model is a representation of the real world. When things go as they should, a model behaves like a simplified version of real situations. So, to understand the Seine, I subject the model that I built in its image to specific actions – filling or emptying its reservoirs, for instance – and observe its reactions.

I also rely on control theory, which deals with the behavior of dynamic systems as a function of different inputs. Control theory has already proved its worth, as it was used to send astronauts to the Moon. In the context of my research, it facilitates control of the dynamic system formed by the Seine and its four regulating reservoirs.



### SCIENCE TO THE RESCUE

This research is essential in view of the stakes involved. To understand this, you need only look at the photos of Paris during the great flood of 1910. If the city were to experience a sharp rise in water levels tomorrow, the main access roads would be blocked, dozens of metro stations would be completely unusable and thousands of households would be deprived of energy, which would be allocated in priority to hospitals and airports. The cost of such an event would amount to hundreds of millions of euros. My mission is to avoid ever seeing an economic, social and human disaster of this magnitude.

Making something robust, i.e., statistically reliable, is not easy in the case of controlling such a complex dynamic system. As Galileo said, evoking the infinite play of cause and effect, "You cannot pick a flower without disturbing a star." Water is at the heart of a system of interactions, and you cannot look at just one aspect of it in isolation. For instance, siphoning off groundwater has an effect on rivers, which affects fauna and flora and then the ecosystem as a whole. My research calls for as global an approach as possible.



As a genuinely strategic resource, water and its use and distribution is at the center of many – often conflicting – interests. There is the water we drink, the water that irrigates our crops, the water required for our industries. This raises a crucial ethical question: how should water be shared?

The ultimate goal of my research is to clarify the public debate and facilitate decision-making for authorities in charge of water management. I carry out fieldwork, meeting the people active in the real world and work in close collaboration with many colleagues – climatologists, hydrologists, economists and mathematicians.

This research gives local decision-makers a scientific basis for managing water to the benefit of the greatest number. In this way, it becomes a powerful facilitator for democratic debate serving the community.



I was born in Calabria, in Italy. Very early on, my father conveyed to me his passion for the environment. Later, I became an engineer with the determination to solve problems and play a useful role. Today, my work commits me to improving society. Communicating the results of my research honestly, not concealing any uncertainties that remain; presenting information realistically while focusing on the future: this is my commitment as a researcher and citizen.







# PROTECTING THE MOST VULNERABLE

Thanya Sofia Labrada Alba is a nutritionist. Holder of a Master's in Health and Nutrition, Thanya has devoted the last eight years of her life to Mexican children suffering from malnutrition. Every day, with the permanent staff and volunteers working with the non-profit organization "Un Kilo de Ayuda," she sets up nutrition, health and neurological development programs in the five Mexican states most exposed to this scourge. In many rural communities, actions to raise awareness and those for prevention, detection and treatment are conducted for the benefit of the most vulnerable people. For Thanya, this personal engagement is the practical embodiment of a vocation she has always cherished: helping the most vulnerable.

THANYA SOFIA LABRADA
UN KILO DE AYUDA A.C
NON-PROFIT ORGANIZATION SUPPORTED
BY AXA IN MEXICO SINCE 2013





## ABOUT HEALTHY EATING HABITS

Poor eating habits and their consequences – malnutrition or obesity – tend to affect the most underprivileged communities. Today, 1.5 million children in Mexico suffer from chronic malnutrition, while seven out of ten adults and one in every three children aged between 5 and 11 are overweight or obese, putting Mexico in first place worldwide for this problem, ahead of the United States. With the non-profit organization "Un Kilo de Ayuda," I work with the most vulnerable people to help them change their eating habits.

I run nutrition programs and follow-up programs, traveling around rural areas seeking out isolated communities that are among the poorest in the country. My aim is to distribute food, explain the rules of healthy eating and collect information so as to monitor families over the long term.



Snacking and junk food consumption is common among both mothers and their children. For instance, we have observed that from the age of six months, mothers give infants soft drinks and sugary drinks to supplement breast milk.

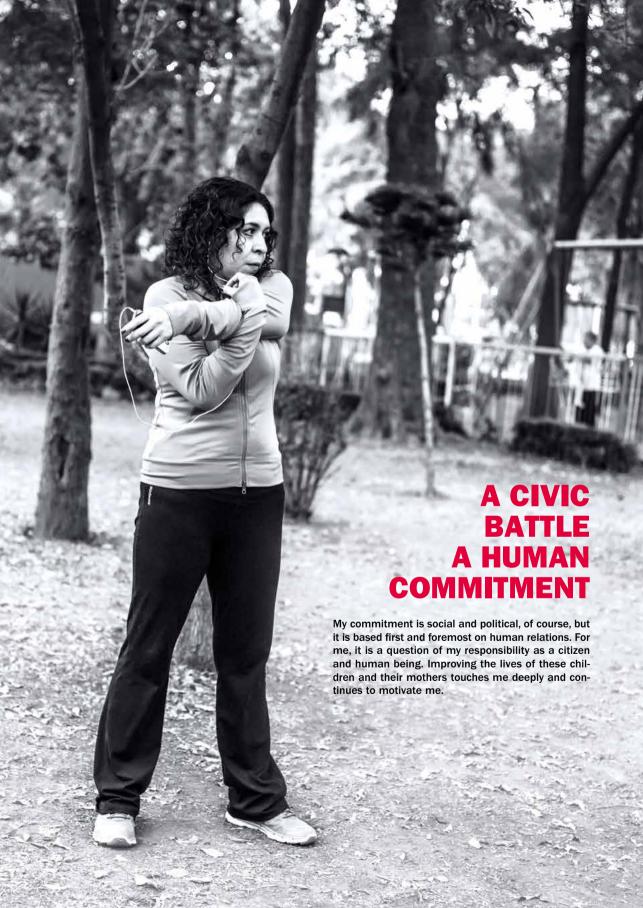
My mission is to inform people. It involves educating them over the long haul, which means establishing genuinely close and trusting relations with the families we help.











Today, our action reaches more than 50,000 children living in 850 communities. We create a personal file for each of these children, who benefit from regular follow-up both from our local branches and our national office. Fighting malnutrition and its consequences means fighting inequality. If we don't work hand in hand – the government, non-profits and companies acting together – we will not win this battle.

Economic and social inequalities are increasing. There is a growing gap between those who have access to healthcare and those who don't. It's an urgent issue and I am proud to be engaged in this battle!

→ www.unkilodeayuda.org







