euralarm

White Paper

Making Europe's Smart Cities Safe, Secure and Resilient

Content

Executive Summary

In order to be attractive and successful European cities need to respond to stakeholders' demands in particular in the areas of security, convenience, opportunity and prosperity. To this effect they are changing at an ever-faster pace, a development presenting both opportunities and challenges for city authorities, companies and private or public institutions, as well as for the citizens. The megatrends of urbanization, population growth and ageing, climate change, increasing mobility and globalization are transforming urban centres globally and in the EU – with important repercussions for a city's competitiveness, its quality of life, and its security and resilience in an evolving threat landscape.

One answer to these challenges is the growing importance of the Smart City concept. And even though this is still far from always being the case, properly and holistically understood the Smart City should define urban spaces in very broad terms, rather than primarily focused on (energy) efficiency, sustainability and ICT-based, intelligently interlinked infrastructures. Smartness has to consider each neighbourhood's challenges and priorities, properly aggregated at the city level. Smartness should in particular include a city's security and resilience in terms of service delivery and the functioning of critical infrastructures during times of acute crises and of chronic stress. Indeed, the first upcoming international standards for Smart Cities naturally take safety, security and resilience into account when defining key performance indicators for Smart Cities (see ISO 37120, published 2014).

Charisma, Resilience and Vitality are at the core of a city's competitiveness. Smartness has to include these essential ingredients as the foundations of the ever-growing share of national GDP generated in urban centres. Only smart, safe, secure and resilient cities will attract international investors as well as productive citizens. This paper is about creating and preserving the competitive edge cities need to meet the challenges and risks that are associated with global trends and how an approach such as the European Commission's "European Innovation Partnership for Smart Cities and Communities" could add even more value for cities across the EU were it to acknowledge the critical importance of a broader set of citizen demands, including safety, security and resilience. One of the key questions is whether Europe can overcome the increasingly complex challenges our cities are facing while bringing together all the stakeholders to facilitate an exchange of ideas and international best practices in order to build safe, secure and resilient cities. The building blocks already exist: city authorities, policy makers, academia and industry have solutions and understand the needs of a functioning city and the resources needed when cities are under chronic stress or acute shock. A variety of solutions such as services and technologies for critical infrastructure protection, command & control for first responders, alarm monitoring and civil protection are making valuable contributions to securing smart, sustainable and resilient cities.

However a forum to identify policies, funding mechanisms and a European framework for effectively spreading these solutions that support and secure all other aspects of the Smart City across the EU is still absent. The 'EIP Smart Cities and Communities' is a laudable step in the right direction, but it needs to be expanded to give holistic answers to the safety & security challenges of the Smart City.

Combined with future efforts in the area of standardization and certification, such an enhanced 'EIP Smart Cities and Communities' would not only allow cities of all sizes to benefit from access to state-of-the-art solutions and best practices, but it could also position the EU's policy makers, research and the private sector as global thought leaders in holistically thinking about Smart Cities, underlining the often-overlooked, yet fundamental importance of urban safety and security for smartness – also and especially during crises.

In order to increase the EU-wide level of security and safety for urban spaces, Euralarm thus urges the European Commission, member states, national and local authorities, as well as the EU private sector to join forces in:

1. Expanding the 'European Innovation Partnership on Smart Cities and Communities[1]' to become a holistic forum for dialogue between the European Commission, member states, national and local authorities, the private sector and other stakeholders based on all essential key performance indicators identified by ISO, IEC and ITU. Such an enhanced EIP can best support the development of a common European framework for smartness, safety and security of urban spaces, facilitate an exchange of best practices and create improved funding opportunities especially for financially strained cities.
2. Recognizing the concept of safety, security and resilience as a fundamental pillar of Smart Cities to henceforth be reflected in all future EU policies, research and funding for urban spaces.
3. Assisting in the future development and acceptance of adequate standards and pan-European certification for the harmonized implementation of solutions and services for smart, safe, secure and resilient cities, also recognizing that bolstering the competitiveness of the European security industry is a critical element of protecting the EU's cities.

[1] http://ec.europa.eu/eip/smartcities/

Changes revision table			
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1. The rise of Smart Cities in Europe and Beyond – And the Need for Safety, Security and Resilience as a Key Pillar

For many of the challenges posed to urban authorities and citizens alike by the combination of trends like urbanization, population growth, climate change and intensified competition between cities in a globalized world, the rise of the Smart City concept is probably the most-widely employed attempt to find solutions. We can see this concept gaining acceptance and maturity both in Europe and beyond. Smart City projects now exist in the form of research, demonstration and pilot projects, strategic commitments by city governments, as well as public-private-partnership platforms and innovation incubators all over the world (e.g. in the 'European Innovation Partnership Smart Cities and Communities', the "World Council on City Data", the Rockefeller Foundation led "100 Resilient Cities Program", and many more).

In short, the Smart City concept strives for maximum efficiency in responding to the needs and demands of citizens, businesses and other stakeholder, relying on a network of interlinked sensors and collecting real-time data from sources spanning across the city. The Smart City is all about intelligently interlinking infrastructure sectors and city services that used to be more or less independent functional silos. Yet, more often than not, the Smart City is limited to eco-efficient, traffic-optimized and IT-interlinked sectors of a city co-functioning in a synchronized, intelligent way.

But what happens when this city infrastructure is disrupted by increasing chronic stress or acute shock due to sheer system overload, crime, terrorism, industrial accidents or natural disasters?

How can the flows of people and goods, energy as well as information & communication, which are at the heart of the Smart City, be secured?

A truly attractive city excels with 3 core attributes: Charisma, Resilience and Vitality. Charisma attracts and inspires citizens and businesses by leadership in services and "brand differentiation". Resilience ensures the availability of a sustainable infrastructure to anticipate and respond to challenges of all kinds. Vitality provides an environment that helps individuals and business to make best use of their economic, social and health potential.

Smart City concepts are usually blindsided by the importance of security as well as resilience for the reliable functioning and performance of a city's 'critical foundations' in terms of attractiveness, infrastructure quality and services to its citizens. To be truly smart cities need more than just efficiency – they need to be robust and resilient in order to provide their services to citizens, businesses and institutions at all times and under all circumstances: Particularly during times when urban systems are under stress. Safety, security and resilience are key pillars and indeed the foundation upon which the smart city rests. Making people, cities and urban infrastructure more secure serves as one of the critical foundations for stability, productivity and prosperity.

Several examples (e.g. in the Netherlands or in the United Kingdom) have demonstrated that a successful city management starts by identifying, measuring, mapping and comparing performance according to several relevant criteria at the level of individual buildings or neighbourhoods and then aggregating the data at city level. Performance managed in such a way and visualized in easily understood cockpit charts can be used in order to develop strategies and improvement plans in prioritized areas based on comparison, co-operation and co-ordination with other cities. In the long run it even can be used to monitor and manage action in real time, in particular at times of high stress or acute shock.

2. A Holistic Approach – Helping to Enhance the Security of Europe through Safety and Security Technology and Services

In order to ensure the smartness, safety, security and resilience of their cities those in charge must have a comprehensive approach to safety and security that includes four essential components for all types of stress or shock based disruptive conditions:

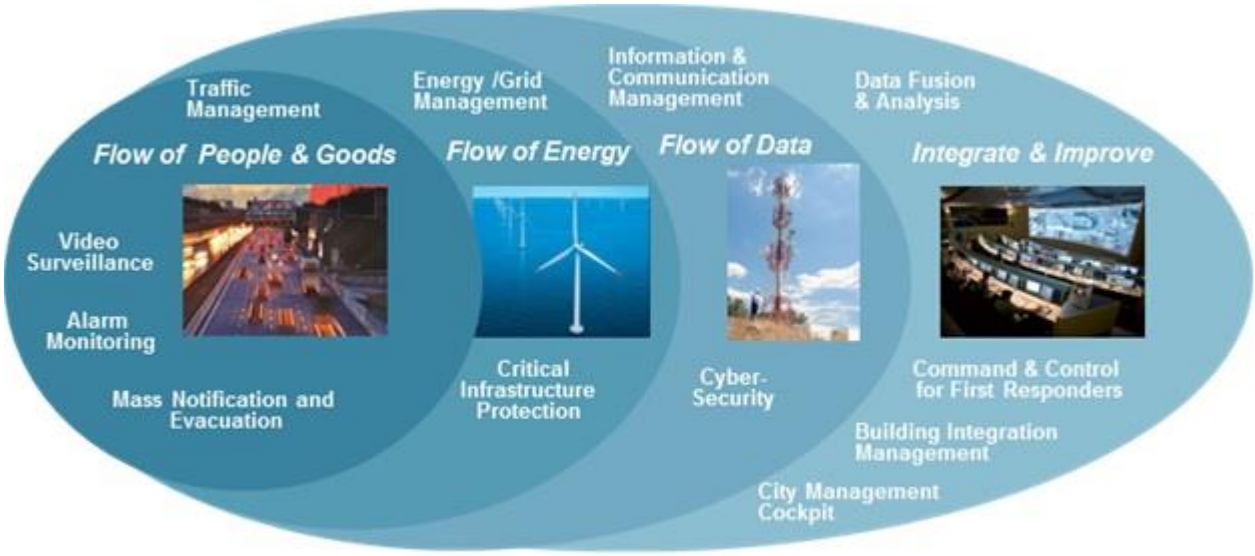
- Preparedness, protection and prevention based on a thorough assessment of challenges
- Detection of imminent threats and developing incidents
- Reaction and response mechanisms to all types of disruptive conditions
- Measures to ensure effective recovery and continuity of the urban system

The European security industry is already helping cities tackle some of the toughest challenges of our times by bringing together the expertise and know-how of a wide range of security and safety products and solutions. They are at work protecting cities, people and critical urban infrastructure in Europe and beyond, yet more can be done in order to really apply the *Smart City* concept of efficiency gains through intelligent interconnectedness between the various systems and subsystems that keep a city safe and secure.

A holistic approach requires safety and security solutions to be offered across all critical urban infrastructures, addressing the respective needs of those in charge and those the systems serve: municipal authorities, first responders and populations dependent on a functioning urban system.

Adding value to these security efforts requires a unique understanding of what it takes to protect urban spaces – from individual buildings to wide-area, campus-like sites and critical urban infrastructures like energy supply, water supply or transportation networks owned and operated by the public or the private sector. Only when the interconnected flows of people and goods, energy and data that characterize *smartness* are functioning efficiently and securely, the value of the *Smart City* concept can be fully realized.

Some of the technologies, services and solutions to be considered in a holistic approach to *Safe, Secure and Resilient Smart Cities* are listed below:



Overview: Integrated safety and security are critical foundations of a city's smartness and resilience

Public Alert / Mass Notification / Voice Alarm

Mass Notification provides real-time information and instructions to people in buildings, building complexes and other urban spaces using intelligible voice communications along with additional visible signals, text and graphics. These systems intelligently complement emergency response plans and provide information to the public that is vital before, during and after an incident.

Communications to the public today can be characterized as heavily diversified and using multiple (technical) delivery channels. This is a result of the changing life and working styles during the last decades. Challenged by this, the danger and emergency management processes in buildings also evolved. They now offer several alternative means for communication (sirens, voice messaging, e-mail, SMS, etc.) to inform and warn people about incidents in buildings or on campuses and provide suggested measures to react on this information. Thanks to this evolution, building systems can actively contribute to dynamic evacuation processes and re-direct people away from sources of danger like a spreading fire. Voice- and loudspeaker-based information systems can automatically adapt their volume to override the current ambient noise level and address the public in case of an emergency in multiple languages, so that even people unfamiliar with their surroundings (e. g. tourists) can find the best escape route.

Smart smoke detectors can assist people in finding the nearest egress route as well as guide them via dynamic lighting systems that are strong enough to penetrate even thick smoke. Beyond just functioning in building complexes, these systems are also capable to cover incidents in whole neighbourhoods or entire cities, therefore contributing to securing lives and assets in a city or even beyond, as shown for example by the FP7 project, Alert4All and demonstrations like PEARS[1]. In the *Smart City*, emergency communication and alerting systems can be both layered and redundant (e. g. alerts are distributed via targeted SMS, sirens and loudspeakers simultaneously). No single means of communication should be solely relied upon to reach the population.

[1] http://www.euralarm.org/news/2013/nov/7/euralarm-alert4all-demo/

Command & Control for First Responders

With a top-level response capacity at their disposal city managers can be confident that they have situational awareness and are prepared to manage a crisis well enough to alert, respond, and if necessary evacuate the population. In essence, all first responders need the ability to communicate between each other and reach an incident quickly with optimum information available beforehand. This information ideally is continuously updated as the city's command & control centre gains a better overview of the crisis or incident at hand, so that first responders and their equipment and vehicles can be guided effectively and routed according to real-time traffic data. Consequentially, city operators and response forces can maximize their impact, while minimizing the effects of the incident (be it a terrorist attack, a crime, or a man-made or natural disaster).

Monitoring and Alarm Receiving Centres (MARCs)

Another key element of the smart, safe, secure and resilient city is an advanced capability to monitor and intelligently process the large number of alarm signals in a city which stem from a wide variety of sources and all require different, yet timely responses. MARCs are staffed with highly-qualified operators using advanced technology for simultaneously handling and verifying fire, intrusion, health, technical or social alarms, remotely monitoring and "virtually patrolling" a number of urban critical infrastructure premises e. g. via video surveillance. If needed as a last resort, they can initiate a rapid response based on predefined action plans. Thus intervention forces can be sent out to a critical site for dealing with the disruptive event and for restoring safety and security there. MARCs give the ability to first verify remotely whether an on-site intervention is needed at all, therefore contributing to increased urban productivity by focusing resource and time consuming interventions and guard responses on situations where they are really needed.

Video Surveillance Systems (VSS)

To make citizens feel secure, cities need to show that they take seriously their citizens' fear of crime, disorder and terrorism. Surveillance cameras are a commonly used option and a field of operation with many applications, from public area and hot spot surveillance to monitoring passengers in trains, subways and buses. Cameras can help prevent a crime or attack by alerting operators to unusual events. Moreover, they can assist in command and control situations and discourage crime by monitoring suspicious driving behaviour. Camera footage can also help in the forensic effort to find the culprits after the fact and be used in a court of law to supply prosecutors with the solid evidence needed to keep dangerous criminals off the streets. Yet none of this needs to compromise the citizens' rights to privacy.

Beyond these "classical" safety and security examples, Video Surveillance Systems offer additional value for a *smart city*. VSS images streamed directly to urban traffic control rooms can supply critical information on traffic flows and volume, allowing for real-time adjustments such as re-routing traffic away from "bottlenecks". Traffic jams can thus be avoided or at least minimized and the overall speed of the inner-city flow of people (as well as goods / logistics) is increased to generate valuable gains in efficiency and productivity. Moreover, real time video information can be used to direct citizens at major sports or other events, or in case of mass evacuations.

Video surveillance is a typical application of a "parallel use" concept: Investments into security solutions such as video surveillance are in parallel also business enablers and city productivity boosters as they provide valuable tools for processes and operations optimization to city managers. What matters for cities is the intelligence and integration capability of the IT solutions "beyond and behind the cameras" – all tailored to the individual needs of each European city – that ultimately allows them to improve security as well as the smoothness of flows of people and goods.

Intrusion, Hold-up and Alarm Systems (IHAS)

The megatrend of demographic change leads to older populations becoming more sensitive to security threats. This trend coupled with the rising frequency of burglaries and home intrusions is influencing the way cities are perceived in terms of attractiveness and liveability. Advanced safety and security solutions can offer the peace-of-mind associated with knowing that family and loved ones are secure at home. Not only fire or gas leaks can be detected at an early stage, but it is also possible to immediately send out an alert signal to a connected monitoring and alarm-receiving centre at the first sign of an attempted burglary or intrusion. Operators are enabled to immediately verify via remote monitoring whether a crime is in progress and if needed a private or public security response unit can be dispatched within seconds to secure the home and its inhabitants. Such a timely response will also serve as a deterrent and lead criminals to avoid well-protected neighbourhoods. Thus smarter and better protected residential areas are more likely to attract new inhabitants and to experience growth.

Much beyond residential applications for the urban population Intrusion, Hold-up and Alarm Systems are essential components to protect and enhance the resilience of the critical infrastructure in smart cities in many areas, such as energy and water supply, telecommunication, or transportation.

Fire Detection & Alarm plus Fire Extinguishing & Suppression

Fire threatens the loss of life and property of the public and private sector and of individual citizens alike. This is especially important to high-risk groups, for example the elderly or disabled and for high-density populations in high-rise buildings or stadiums. Fire threats can be mitigated through wide-scale deployment of reliable fire detection and alarm systems in public buildings and urban critical infrastructures such as public transportation hubs. A number of reliable detection methods can be used to scan surroundings for smoke and flames and then activate fire fighting systems geared specifically to the requirements of the respective environment, be it a subway station or a data centre. As fire can easily disrupt power infrastructure, logistics, communication and IT systems for a significant time, it has a direct impact on the functioning of a city and its ability to protect and sustain its population. However, a properly secured *Smart City* can minimize fire-associated losses and become more resilient.

Secure Parking & Cargo Security

As mentioned above, the flow of goods through global logistics is one the engines of modern economies and cities. Trucks and container loads are an essential part of urban supply chains and becoming common targets for cargo theft and crime. Secured car / truck parks and secure lanes (video-monitored traffic corridors) are needed to protect both: vehicles and people on the road in addition to monitoring and managing evacuation routes in times of stress. A functioning urban area relies on the ability to bring in supplies, transfer waste, and transport inhabitants to and from their place of work and home. A resilient city must have as its goal the protection of inbound and outbound traffic whilst taking cargo traffic laws and regulations into consideration. Operating Security Zones such as secured parking would make sure that the supply chain of a *Smart City* is secured and that quality of life is being protected in all matters.

Cyber-Security and Physical Security for Urban Critical Infrastructure Protection

Although cyber-security is an important part of total security protection and resilience it is not further discussed here since various European agencies and work groups dedicated to the safeguarding of the Internet, data protection, and connectivity are already addressing it.

The European Network and Information Security Agency (ENISA) published a report on the threat landscape and appropriate security measures for smart grids[2]. It maps the proposed security measures and the threats identified including a glossary of threat and asset types for smart grids. Furthermore, the European Commission has issued a Communication on a cyber-security strategy[3] of the EU and the proposal of Directive on Network and Information Security[4] where one of the objectives is '*To put in place a minimum level of NIS in the Member States and thus increase the overall level of preparedness and response.*'

The ICT pillar in "Smart Cities" should encapsulate best practices, minimum standards, planning, and implementation of related techniques and solutions to address this section. Most attention has been on addressing smart grid networks and services which are critical and whose compromise would have a significant impact on society. However, further attention needs to be on physical security and safety not only for networks and services, but also for the functioning of the urban area as a whole.

Building Integration Management and City Management Cockpit

It has become increasingly obvious that the complexity of Smart City integration can only be handled if two essential prerequisites are fulfilled:

- Top-down and one-fits-all approaches should be replaced by solutions built-up from the ground, starting at the individual building and neighbourhood level and gradually integrating up to the city level. Both the building management industry and the ICT industry have developed tools that can be used to this effect.
- Isolated solutions without comparison and benchmarking with other cities invariably lead to solutions which do not exploit the full potential. City Management Cockpit applications help to get a good overview of key performance indicators and to distinguish between areas where co-operation with others adds benefits and areas where unique solutions can be developed in order to differentiate the performance of the own city.

The technologies and solutions mentioned above have been tested and proven in cities across Europe and beyond. Together, they show how safety and security technology can sustain an urban centre, protect its citizens and keep it functioning even during times of stress – making it *smart, safe, secure and resilient.*

[2] https://resilience.enisa.europa.eu/security-and-resilience-of-communication-networks-and-information-systems-for-smart-grids/eg2-minimum-security-measures-for-smart-grids/conference-calls/3rd-conference-call/final-document/view

[3] http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=1667

[4] http://ec.europa.eu/information_society/newsroom/cf/dae/document.cfm?doc_id=1666'

3. The Value-Add of a European Approach: Best practice sharing, funding and standards

To move beyond having a number of state-of-the-art solutions successfully employed in some European cities, it is now important to develop a concerted and holistic approach to Smart City resilience, safety and security on the European level. It is of paramount importance that the EU, member states and urban stakeholders succeed in bringing together the numerous EU initiatives dealing with all aspects of urban safety & security, such as critical infrastructure protection, public alert, mass transport security, IT infrastructure / data centre security and civil protection under one well-established "umbrella" for Smart Cities, such as the 'EIP Smart Cities and Communities'. Thus cities can work together with each other while focusing collaboratively on identifying priorities, sharing best practices and engaging all stakeholders. Europe's cities will benefit enormously from a concerted approach under the auspices of the European Union to enhance the current EIP into a "European Innovation Partnership for Smart, Safe, Secure and Resilient Cities and Communities".

Such a forum will not only help many cities struggling with strained financial resources to have access to funding opportunities, public-private partnerships and other financial models but it will at the same time make sure that these cities will gain in smartness that is also including safety, security and resilience to keep the city functioning during times of crises as well. Such an approach is essential to secure the competitiveness of European cities in a global economic environment.

In addition, future standards and pan-European certification for the harmonized implementation of urban security solutions and services could gain acceptance across the EU and guide all relevant city security stakeholders in their quests to keep citizens, businesses and institutions resilient, safe and secure in their cities. Lastly, the benefits of European research in the field of urban security and public alert systems would be promoted and implemented in more urban spaces, spreading the benefits of EU research more widely.

All Stakeholders will benefit from an EIP that is expanded into a "European Innovation Partnership for Smart, Safe, Secure and Resilient Cities and Communities"

As discussed above, cities all over Europe and around the world face a multitude of challenges and threats. Some of these are quite unique due to their geographic, social or climatic environment, like earthquakes, flooding or an extremely strong gang culture. Other factors, like population growth and strain on existing infrastructure, apply to almost all cities. Across Europe, city authorities face tough financial constraints and limited resources hampering or delaying the implementation of securing public or critical spaces. To varying degrees, city managers, planners and operators are aware of the ongoing discussions about smart, safe, secure and resilient cities, yet they often may be unsure how to best position themselves to leverage these developments and participate in improving their cities. As there are more commonalities than differences between cities in Europe, we believe that there is ample opportunity for the various stakeholders in finding common answers to the challenges of also securing the Smart City by collaborating on the European level.

There is a clear need to expand the current concept of Smart Cities to include safety, security and resilience measures and to launch an EU-wide platform or forum open to all urban safety and security stakeholders, public authorities, the research community and industry. From the cities' perspective such a forum would not only appeal to large cities, but also medium- and smaller-sized cities could join to form regional and/or cross-border networks to make their voices heard. Through exchanging expertise with EU and national authorities as well as with the public and private sector, they can gain a better understanding of the issues at stake and find solutions vastly superior to the current fragmented approach. In the end, a pooled knowledge and exchange of best practices will ensure the most efficient and enduring impact of investments possible for keeping Europe's cities of all sizes safe and secure.

The EU Commission has already established itself as a major factor in the Smart City arena by launching the European Innovation Partnership for Smart Cities and Communities, which helps Europe's cities to position themselves as frontrunners along the axes of energy, transportation and ICT. To build on these efforts and to take into account the fundamental role of safety and security for any city, the Commission should also take on a prominent role in expanding this EU-wide platform in the near-term future to allow European cities to be smart in a truly holistic sense, namely not only "energy sustainable", but also safe, secure and resilient. Through such an enhanced EIP, the Commission could further unite Europe's urban and security stakeholders and position the EU as a leading voice globally that also considers the fundamental safety and security needs of the Smart City. This is all the more important as cities themselves increasingly realize the need to include safety, security and resilience into their strategies and development plans.

Research, Standards, and Certification: Creating Synergies and Access to Proven Solutions for European Stakeholders

The European and international standardization community already provides a way forward in guiding future EU discussions on smart, safe, secure and resilient cities. Standards and certification allow access to expertise on state-of-the-art technical solutions and processes that already are proven in urban areas. Standards could be seen simply as "codified best practices", giving cities the possibility to use this knowledge as a blueprint for enhancing their own urban security. A European approach will help cities to implement strategies to overcome the current patchwork of non-harmonized, fragmented and inefficient security frameworks, which cannot really handle challenges going beyond urban or national borders. Instead, this European approach will offer a potential future moving towards harmonized solutions and frameworks that increase safety and security across the board in Europe's cities, regions and member states.

Future standards for safe, secure and resilient cities could be developed closely interlinked with a future "European Innovation Partnership for Smart, Safe, Secure and Resilient Cities and Communities". By bringing together stakeholders from a wide field of urban and security issues, useful standards and certification could be generated to adapt or develop the *Smart City* concept and better link it to urban safety, security and resilience. Outside the EU, *Smart City standards* are already incorporating these elements, for instance in the forthcoming ISO/TC 268 standards, which include *Smart City* performance indicators for fire, security and rescue services, as well as overall infrastructure security and resilience. By fully taking these international developments into account, the EU will have an opportunity to expand the *Smart Cities* concept and to enrich it through the inclusion of urban safety, security and resilience as fundamental pillars.

Furthermore, through fully leveraging its research Europe can improve the competitiveness of its security industry and display its leadership by thinking holistically about *Smart Cities* – enriching the purely energy efficiency and ICT-based initiatives with the knowledge and practice of how to keep cities safe, secure and resilient. "Secure Societies" is already a key objective of the European Union. One can see this in the Horizon 2020 research proposals on urban security and also in various FP7 initiatives and demonstration projects for securing urban spaces and population. Interconnecting the "European Innovation Partnership for Smart, Safe, Secure and Resilient Cities and Communities" with EU research will benefit this endeavour and contribute to the EU reaching its goal of (more) "Secure Societies" in 2020.
The EU could thus lead the way in answering the "tough questions" of how to keep the *Smart City* functioning including in times of crises – through the combined urban and security expertise that would result from a holistic European approach combining dialogue, standardization and research.

4. Euralarm contribution to an enhanced European Innovation Partnership for Safe, Secure and Resilient Smart Cities and Communities

Euralarm leverages combined European safety, security and resilience expertise from the private sector. It stands ready to support public authorities and operators in a holistic approach to improve the security of urban areas. Euralarm is the only EU industry association that represents the full spectrum of safety *and* security solutions; it can contribute to an EU approach through its broad network of small and medium-sized enterprises as well as most of the world's largest security companies. National safety and security industry associations from many European member states are Euralarm members who can provide a more complete understanding of what is needed across Europe.

We believe that our EU-wide presence and expertise will allow us to contribute to a common understanding of what it takes to adequately secure critical urban infrastructure, cities and their inhabitants. Furthermore, Euralarm is already very active and has decades of experience when it comes to standardization and certification for safety and security in Europe. Our knowledge of the national standards landscape enables us to clearly see the gaps and identify potential reference solutions across Europe that can lay the foundation for improving the European framework for smart, safe, secure and resilient cities.

When it comes to European research, Euralarm has been and is deeply involved in a number of projects that add value to this important pillar of *Smart Cities*. For example, we have contributed to research demonstrations for civil protection in urban spaces and whole regions via Alert4All[5] and PEARS, as well as via the FP7 Security Research project "Pop-Alert", which identifies gaps and needs in population alerting across the EU and proposes a blueprint for how to better reach citizens through multiple alarm channels.

[5] http://www.alert4all.eu

In short, we believe that there is tremendous potential if Europe can succeed in joining together the various elements for making its cities not only smart, but also safe, secure and resilient. Promising safety and security solutions are already adding value in several cities across Europe, while emerging standardization and research projects point the way forward. Establishing an enhanced "European Innovation Partnership for Smart, Safe, Secure and Resilient Cities and Communities" will add a further boost and we at Euralarm stand ready to contribute to these endeavours for the benefit of Europe, of its economic strength, and of its cities and their citizens.

About Euralarm

Euralarm represents the electronic fire and security industry, providing leadership and expertise for industry, market, policy makers and standards bodies. Our members make society safer and secure through systems and services for fire detection, intrusion detection, access control, video monitoring, alarm transmission and alarm receiving centres. Founded in 1970, Euralarm represents over 5000 companies with an estimated cumulated revenue of 18 bn Euros. Euralarm members are national associations and individual companies from more than 17 European countries.

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