

Newsletter

2025/2



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HOSTS COMFORTAGE'S GENERAL
ASSEMBLY AND JOINT EVENT ON HEALTHY
AGEING**

2.

**LIVING LAB EGEA: "SENIORS MEET
ROBOTS"**

3.

**PIANO DELIVERY CEREMONY TO THE
PEDIATRIC SURGERY DEPARTMENT OF
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**FEATURED REFERENCE SITE: CAMPANIA
RADAR STAKEHOLDER MEETING:
"IMPLEMENTING AN INTEGRATED
APPROACH TO AMR: CHALLENGES AND
ENABLERS IN THE HOSPITAL SETTING"**

Featured RS Catalunya: Three Days of Innovation: Barcelona Hosts Comfortage's General Assembly and Joint Event on Healthy Ageing



Speakers & Facilitators Joint event Ageing Deal initiative

From 6 to 8 May 2025, Barcelona became a hub for forward-thinking discussion and innovation in the field of healthy ageing. COMFORTage brought its partners together for its third General Assembly and a collaborative joint event with the STAGE Project. The event took place on the occasion of the COMFORTage General Assembly the joint event took place at Casa Convalescència, under the Ageing Deal initiative. This special occasion brought together researchers, innovators, policymakers, and healthcare professionals from across Europe, including representatives from the European Commission, Catalan health organizations, and several SMEs. In collaboration with the STAGE and SMILE Projects, the event spotlighted several core themes:

- Integrated, person-centered care models.
- Digital transformation of health and care services
- Social innovation and new service delivery models
- Empowerment of older citizens in care decision-making

The day featured panels, networking, and hands-on workshops where attendees shared experiences and explored opportunities for collaboration. Discussions highlighted the importance of co-creating scalable solutions that reflect the real needs of Europe's ageing society.

More than just a showcase of innovation, the event demonstrated a shared vision: that

ageing should be seen not as a burden, but as a valuable phase of life. The energy and ideas exchanged in Barcelona reinforced the role of science, technology, and human-centered design in creating inclusive and resilient health systems.

As the COMFORTage project continues its work, events like these underline the value of collective action in building a healthier future for people of all ages.



Living Lab EGEA: “Seniors Meet Robots”

Population aging is a global trend that poses significant challenges to societies around the world. Rapid demographic change puts significant pressure on healthcare systems, social services, and the economy as a whole. As the number of older adults increases, so does the demand for assistance with daily activities, among other things. Increasingly, older adults are experiencing social isolation and loneliness, with negative consequences for their physical and mental health. In this scenario, care and social robotics emerge as a potential solution to support people over 65 in maintaining autonomy and independence in their own homes. Robots can assist with a wide range of tasks, from mobility and personal care to household chores and medication reminders, promoting independence in older adults and improving their quality of life. Robots can also provide companionship and emotional support, helping to maintain the cognitive abilities of people over 65. More specifically, robots can monitor the health and safety of older adults, detecting falls, abnormalities in vital signs, and other emergency situations.



The older people of the eGEA Living Lab with specialists and professors from the University of Naples Federico II

Piano Delivery Ceremony To The Pediatric Surgery Department Of UNINA Hospital

A piano was donated to the Pediatric Surgery Unit of the Federico II University Hospital, directed by Ciro Esposito, on June 6th. The goal is to offer young patients "a means of expression that brings relief, creativity, and hope". This altruistic gesture aims to reduce the pain, stress, and post-operative anxiety of children hospitalized in the unit, as the initiative's promoters stated in a statement. The piano was donated by the Kiranet company, which supported the project conceived by the Pediatric Surgery Unit of the Federico II University Hospital and UNICEF. The idea of donating a piano to a hospital unit, the first of its kind in Campania, aims to make the hospital stay of young patients less traumatic. Music can create a sense of community, stimulating interactions between patients, families, and healthcare workers.



The piano donated to the Pediatric Surgery Unit of the Federico II University Hospital

Interview with Prof. Ciro Esposito

1. Which are the most frequent health needs in pediatric patients that can be addressed with a surgical approach?

The most frequent health needs in pediatric surgery are congenital malformations that can affect various organs and systems. This special characteristic makes pediatric surgery essentially reconstructive, in contrast to adult

general surgery, which is predominantly demolitive.

Congenital malformations can range from esophageal atresia to genital malformations

such as hypospadias. Routine conditions certainly include cryptorchidism (undescended testicles), hernias of different localizations, and hydrocele.

2. Why is minimally invasive surgery so relevant for them?

Minimally invasive surgery is particularly relevant for pediatric patients for several reasons:

1. **Reduced Recovery Time:** Minimally invasive techniques often lead to shorter hospital stays and quicker recovery, allowing children to return to their normal activities sooner.
2. **Less Pain and Discomfort:** Smaller incisions typically result in less postoperative pain, which can be especially beneficial for pediatric patients who may have a lower pain threshold.

3. **Lower Risk of Complications:** These procedures generally carry a lower risk of complications, such as infections and bleeding, compared to traditional open surgeries.

4. **Improved Cosmetic Outcomes:** Smaller incisions lead to less noticeable scars, which is important for children and their parents.

5. **Preservation of Function:** Minimally invasive techniques can sometimes allow for better preservation of surrounding tissues and organs,

which is vital for growth and development in children.

6. **Enhanced Visualization:** Advanced technology, such as laparoscopes, provides surgeons with better visualization of the surgical site, improving precision and outcomes.

Overall, minimally invasive surgery aligns well with the unique needs of pediatric patients, making it a preferred option in many cases.

3. Which are the challenges to use mini-invasive surgery in general, and more specifically in your hospital for pediatric patients?

The major challenges of using minimally invasive surgery can include:

1. **Technical Expertise:** Surgeons require specialized training and skills to perform minimally invasive procedures effectively, which can be a barrier in some hospitals.
2. **Equipment Costs:** The technology and instruments needed for minimally invasive surgery can be expensive, making it a challenge for some healthcare facilities to invest in the necessary equipment.
3. **Patient Selection:** Not all patients are suitable

candidates for minimally invasive approaches, and careful selection is crucial to ensure optimal outcomes.

4. **Learning Curve:** There may be a significant learning curve for new techniques, which can affect surgical outcomes during the transition period.

Forward specific Challenges for Pediatric Patients includes:

1. **Anatomical Considerations:** Pediatric patients have smaller and more delicate anatomy, which can make minimally invasive procedures more

complex and technically challenging.

2. **Size of Instruments:** Standard instruments may not be suitable for small children, necessitating the development of specialized pediatric instruments that can be more expensive and less widely available.

Addressing these challenges requires ongoing training, investment in technology, and collaboration among healthcare providers to ensure safe and effective surgical care for pediatric patients.

Age-It National Event: “One Health: Age-It Synergies Between Disciplines and Organizations For Successful Aging”



On screen, Alessandra Petrucci, Rector of the University of Florence; from left, Matteo Lorito, Rector of the University of Naples Federico II and Guido Iaccarino, Professor of Internal Medicine



From left, Daniela Lemmo, Maddalena Illario, Erminia Attanese, UNINA

The AGE-IT project has the ambition of establishing a new alliance to design socioeconomic, biomedical, and technological solutions for Italy that are inclusive of all generations. The project has been proving to be extremely productive in terms of models, tools, guidelines, and pilots to be translated into healthcare services innovations for citizens, both directly and indirectly benefiting older adults. Age-IT's Spoke 4, in particular, focuses on successful aging trajectories, and the highly interdisciplinary nature of its scientific activities has been allowing the identification of several critical issues within the system. These issues emerged in part from the

still weak interdisciplinarity of approaches and practices, as well as from certain constraints, such as the difficulties met by secondary use of data for risk stratification, and the personalization of biopsychosocial approaches. From this broad perspective, the built environment emerges as a social determinant of health and well-being within the framework of a holistic approach to aging across the lifespan, where individual health risk profiling is supported by both the availability of specific biomarkers and validated tools that address not only the physical but also psychological, cognitive, nutritional, and sociocultural domains. The need to employ proactive interventions

for health promotion, involving all areas of knowledge, should translate into integrated, proactive, and multidomain interventions, in order to maximize health outcomes in a person-centered and sustainable manner. There is a growing need to rethink organizational and sustainability models related to emerging value chains, taking into account the role of different fields of knowledge in health and well-being at all ages. The event will focus on the elements that can enhance interdisciplinarity and interprofessional collaboration, thus facilitating the connection of the healthcare sector with other domains

FOR AGE-IT

Featured RS Campaign: RADAR Stakeholder Meeting: “Implementing an Integrated Approach to AMR: Challenges and Enablers in the Hospital Setting”



Speakers & Facilitators

Anti-microbial resistance (AMR) is a significant and growing societal challenge. Innovation is needed to rapidly detect and control AMR in a number of settings, not least healthcare facilities and hospitals. The RaDAR project brings together healthcare buyers to undertake a collaborative procurement of rapid AMR detection and control systems. Indeed, the project aims to address the European urgent need for a rapid detection and effective infection control system for antimicrobial resistance (AMR) through the implementation of a value-based cross-border collaborative procurement of innovative solutions.

Federico II Department of Public Health participates in the project through an interdisciplinary team of experts contributing to addressing AMR in several use cases. Aim of the event was to facilitate and encourage collaboration between all stakeholders involved for the exchange of knowledge in order to overcome the obstacles that prevent the large-scale implementation of the acquired innovative approaches. The full report of the event on is available on RADAR website:

radar-ppi.com



Three questions to Ivan Gentile & Antonio Limone

Key RADAR experts on infectious diseases & veterinary medicine for a “one Health” approach to address AMR.

1.

Which is the current dimension of the AMR phenomenon in your double perspective: human and animal health?



Ivan Gentile, UNINA



Antonio Limone, Zooprohylactic Institute

Prof. Gentile: Global modelling that merged surveillance and vital-registration data 1.27 million deaths were directly caused by antimicrobial-resistant bacteria in 2019, with 4.95 million deaths associated overall. Projections suggest that, without new measures, cumulative AMR deaths could exceed 39 million by 2050. In Europe the burden is similarly stark: more than 35 000 people in the

EU/EEA die each year from resistant infections—roughly the same toll as influenza, tuberculosis and HIV/AIDS combined. On the animal side, surveillance by WOAHA shows that food-producing animals consumed an estimated 99 500 t of antimicrobials in 2020; without stronger policies that amount is forecast to rise by about 8 % to 107 000 t by 2030, with two-thirds of use concentrated in Asia. Encouragingly, reported sales data reveal a 13 % global decline since 2017, but regional disparities persist and drugs used in human settings such as colistin and third-generation cephalosporins are still employed in some livestock sectors. Human and animal trends are intertwined: zoonotic pathogens (e.g., Salmonella, Campylobacter) move along the food chain, while shared antibiotic classes (macrolides, fluoroquinolones) create parallel selection pressures. Left unchecked, AMR could shave up to 3.5 % off global GDP—about US \$100 trillion in cumulative losses by 2050.

Prof. Limone: Antibiotic resistance currently represents one of the most significant challenges to global public health, and its impact is equally intense in both human and animal health. From the human perspective, there is an alarming increase in infections caused by bacteria resistant to standard treatments, leading to higher mortality rates, longer hospital stays, and increased healthcare costs. Although numerous regulatory measures have been adopted in the veterinary field to control the improper use of drugs, vigilance remains high regarding the presence of residues in meat. Specific plans enable the competent authorities to constantly monitor the quality of our food products and reduce the risk of consumers being exposed to antimicrobial-resistant microorganisms. It is therefore essential to recognize that AMR is an interconnected phenomenon, in which the health of humans, animals, and the environment are bound by a shared destiny, making the One Health approach indispensable for effectively countering its spread.

2.

What do you think we should prioritize to build capacity to address AMR?

Prof. Gentile: I would divide into macro-interventions and microinterventions

- a. Macro-interventions (national / supranational) – One-Health surveillance 2.0: build an integrated network that links laboratory phenotyping, whole-genome sequencing and antimicrobial-usage data from hospitals, farms and the environment, and publish the results in near-real-time. This nationwide (and cross-border) system enables early detection of emerging threats—such as carbapenem-resistant *Klebsiella*—and guides targeted, large-scale policies and resource allocation.
- b. Micro-interventions (hospital / clinical level) – Scale-up rapid, affordable diagnostics and Antimicrobial Stewardship Programmes: prioritise point-of-care tests that quickly assess infection severity and antibiotic need (e.g. CRP) or provide species identification ± resistance markers in just a few minutes. Combine these tools with robust stewardship teams and protocols, and leverage pooled procurement or subscription models so individual providers are not financially penalised for prescribing fewer antibiotics.

Prof. Limone: To develop a strong capacity to combat antibiotic resistance, it is a priority to strengthen integrated surveillance and the collection of reliable data, promoting a constant flow of information among the healthcare, veterinary, and environmental sectors. At the same time, it is essential to invest in the continuous training of healthcare professionals, veterinarians, and agricultural workers for a more conscious use of antibiotics, as well as to launch awareness campaigns targeted at the general population and rural communities. Technological innovations must support these strategies through new rapid diagnostic tests, the search for new antimicrobial compounds, and alternative methods. Finally, integrated governance with both global and local policies promoting antimicrobial stewardship is crucial to preserving their effectiveness in the years to come.

3.

What is the main lesson learned from RADAR?

Prof. Gentile: RaDAR is an EU-funded Public Procurement of Innovation programme that links hospitals, reference laboratories and health-care buyers in several European Countries. Instead of one large project, it runs a portfolio of micro-projects—local pilots, market consultations and test beds—at multiple organisational levels (wards, hospitals, regional health agencies) to build a model.

- Goal – accelerate access to rapid AMR-detection and infection-control tools by co-designing and jointly purchasing innovative solutions.
- How it works – a cross-border buyers group sets common performance criteria, launches joint tenders, then each site pilots the selected technologies in its real-world workflow. Results are pooled so that successful tools can be scaled across countries.
- Why it matters – the micro-project model lowers risk for suppliers, speeds up evidence generation for clinicians, and creates a bigger, international market for truly useful AMR solutions.

Prof. Limone: The RADAR event reinforced a fundamental lesson: the fight against antibiotic resistance requires a multidisciplinary commitment based on collaboration, knowledge sharing, and a strong connection between academic institutions, healthcare providers, and communities. RADAR highlighted how the dialogue between researchers, clinicians, and policymakers can generate strategies informed by up-to-date scientific data, aiming for a preventive rather than reactive approach. Awareness of the One Health interconnection and the importance of promoting education and research represent the essential foundations on which to build concrete and coordinated actions in our local context, with the goal of containing the spread of AMR and protecting the health of future generations.

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