# **Training school**

The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

> Hosted by: The University of Medicine and Pharmacy "Carol Davila" Bucharest

Organized by: "Ana Aslan International" Foundation

Bucharest, 12-15 September 2022 age-friendly

International Interdisciplinary Network on Smart Healthy Age-friendly Environments



The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

- The CALL FOR TRAINEES raised a great interest among the NET4Age-Friendly related research networks >> 182 applications were evaluated based on several criteria: highest degree achieved, researcher profile URL, scientific area of research / work, affiliation, country, ECI researcher, gender balance
- ✓ 73 trainers and trainees attended the Training school, from 18 countries >> AT, BA, DE, DK, EL, ES, GE, HU, IL, IT, LV, MD, MK, NL, NO, PT, RO, TR
- ✓ 9 experienced trainers
- Trainees with various backgrounds researchers, PhD students and professionals – Medicine, ITC, AI, Smart healthy environments, Deep Learning in Computer Vision, Telemedicine, Disease Prevention with AI, etc.





A Call for Registration has been released among the NET4Age-Friendly related research networks ...







The Call for Trainees was published on NET4's website, social media, professional networks, local press

### https://www.net4age.eu/training-schools

NET(1)



#### COST Action CA19136 - NET4Age-Friendly International Interdisciplinary network on health and wellbeing in an age-friendly digital work

The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

#### Training School

#### 12-15 September 2022

Ana Asian International Foundation (AAIF) and Carol Davila University of Medicine and Pharmacy -- Clef Venue: University of Medicine and Pharmacy "Carol Davila", 8 Bulevardul Eroii Sanitari, Bucharest, Romania

#### Goal

The overall objective of the training school is to stimulate an international and interdisciplinar community of researchers and other stakeholders, to pave the roadmap for innovation in health thus opening new markets for sustainable development.

- There are three main specific objectives of NET4Age-Friendly COST Action and the Training School: Improving the individual level of awareness about the paradigmatic shift from disease treatment to disease prevention and health promotion
- Big Data in Health Care and

#### Business Modelling Innovation

#### Call for Trainees

The NET4Age-Friendly Training School is a multidisciplinary event open to professionals, researchers, an Ph.D. students with a professional interest into the topic. Any interested applicant must complete the <u>ADVECTION FORM</u>.

#### Criteria for selected trainer

Applicants shall be engaged in an official research program as a PhD Student or postdoctoral fellow or can be imployed by, or affiliated to, an institution, organisation, or legal entity which has within its remit a clear association with health promotion or disease preve

Trainees eligible for reimbursement are from COST Full Member Countries (Albania, Austria, Belgium Bosnia and Herzerovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg Malta, the Republic of Moldova, Montenegro, The Netherlands, The Republic of North Maced Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey Ukraine, and United Kingdom), COST Near Neighbour Countries (NNC) or from Approved European RTD Organisations.

The selected international applicants (trainees) will benefit from a Trainee Grant to participate in the activities of the Training School from the 12<sup>th</sup> to 13<sup>th</sup> of September, 2022. This grant is expected to cover the long-distance travel expenses (by train, ferry, bus, plane, or car). Furthermore, the international trainees will receive a fixed daily allowance amount of 110 EUR, which is expected to cover the accommodation in Bucharest, meals and local transportation. Each application will be individually evaluated along with the total grant to be awarded for the 4 days

The selected applicants (trainees) from Romania will benefit from a Trainee Grant to participate in the activities of the Training School based on the distance to and from Bucharest and the accommodation needs. This grant will be individually discussed and agreed.

Selected trainees shall create an e-COST profile at https://e-servi ost.eu including bank details prior to accepting their e-COST invitation. They shall submit via e-COST a completed online travel reimbursement request within 30 calendar days after the end date of the approved activity.

- Trainers Prof Maddalena ILLARIO, Federico II Department of Public Health, Italy
- Prof Luiza SPIRU, University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania
- Dr Stefan BUSNATU, University of Medicine and Pharmacy "Carol Davila", Bucharest, Romania Dr Ivan CHORBEV, Faculty of Computer Science and Engineering, University Ss Cyril and
- Methodius, Skopje, North Macedonia
- Prof Aleksandar Jevremovic, Ph.D., Singidunum University, Serbia
- Flaviana Rotaru, President of Rohealth Health and Bioeconomy Cluster, Romania From Nick Guidemond, The Netherlands.
- Mircea Marzan, MD, EMBA, PhDS, Ana Aslan International Foundation, Romania Others to be confirme

#### Training topics

We are excited that you are part of this program and at the opportunities it will provide to you! The training will revolve around the following topics:

- PREVENTION Prevention Overview: the understanding of the total care proces
- Predictive. Preventive and Personalised Medicine in the new paradigm of Longevity Medicine
- Sustainability and privacy aspects of KT solutions in health promotion and disease prevention. challenges with balancing between solutions, stability and innovation, as well as privacy/security related problems with solutions in this domain:
- Reinventing the patient doctor communication in the eHealth era;
- Digital interventions in mental health for older adults present and perspective

#### **BIG DATA IN HEALTH**

- Big Data in Health Care Scalable and Distributed Analysis and Learning from Big Data and current limitations to access of large-scale data in medicine (patient data, meta data, ethics, statistical approaches); Introduction to data processing. Ethics in data processing. Introduction to Big Data. Cloud
- Computing and its use in Big Data processing: Data analysis used in Precision medicine

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#### BUSINESS MODELLIN

· Defining the business models for new health and care services: learning about the impact of organizational change on work behavior and identity; Value-based business modelling and procurement strategies from a provider and payer perspective.

"As we kick of this new international Training School, over the course of each day we will invite the trainers to discuss and debate for one hour on the topics proposed by other trainers and by the trainees themselve

NET **1** 

#### Discussion

- Health promotion and disease prevention actions aim at keeping people healthy by raising awareness and supporting individuals and communities to engage in healthy behaviors, while also diminishing risks of chronic diseases
- World Health Organization discuss health promotion as following: "[health promotion] enables people to increase control over their own health. It covers a wide range of social and environmental interventions that are designed to benefit and protect individual people's health and quality of life by addressing and preventing the root causes of ill health, not just focusing on treatment and cure."

This point of focus would increase wellness and also lead to some significant changes into overall fra such as addressing social determinant of health and making systemic changes at the level of societal ecosystems in order to enable healthy choices.

Despite its relevance, studies addressing business model innovation for ensuring more effective and efficien health care delivery are rare. Also, the existing conceptualizations of business models do not adequately guide in designing business models specifically applied to the integration of innovations in health services.

A rapidly aging population, combined with fast turnover of health technologies have been driving strong demands for high-cost health services. The need to ensure equity and sustainability in service provision has been stimulating the adoption of digital solutions, especially as a consequence of the Covid-19 pandemic eliealth innovations offer promising new avenues that will allow health and social care systems to cope with these challences and improve the quality of life for older people. However, the user uptake of elfealth is surprisingly low, and successful deployment is not guaranteed unless the interests of key stakeholders are better addressed. While many previous studies have addressed technological aspects of eHealth innovations. the business models underpinning these innovations are often overlooked.

These effealth innovations are expected to create and facilitate new avenues for cost effective and safe methods of care and enabling active and healthy ageing along the entire life course. In particular, digita solutions can enable older adults to live independently in their own homes, thus opening a new "silver market" for smart health and age-friendly environments

One of the key barriers to any increased uptake and integration of eliealth innovations in the European context is the uncertainty related to the sustainability of the business models

The creation of sustainable business models has been recommended as one of the most significant factors for improving health information technology and its implementation, including support of telemedicine functionality for home care (Abraham et al., 2011).

In the healthcare sector, the lack of innovative business models has been noted as one of the main factors behind the current problems of both accessibility and affordability (Hwang and Christensen, 2008).

### NET **1**

- 4 Applications opened: 21 July 2022
- 4 Applications submission deadline: 15 August 2022
- 4 Confirmation to the selected trainees: 22 August 2022
- 4 Deadline for e-Cost registration and confirmation: 31 August 2022
- 4 Training School days: 12-15 September 2022

#### AGENDA

#### DAY 1 (12.0

Key dates

- 14.00 Welcoming remarks Slot 1 Luiza Spiru, Nick Gouldemond and Aleksandar Jevremovi Panel discussions: Introductory remarks and Prevention Overview: the understanding of the
- total care process and Challenges Slot 2 Aleksandar Jevremovic

Sustainability and privacy aspects of ICT solutions in health promotion and disease prevention: challenges with balancing between solutions, stability and innovation, as well as privacy/security related problems with solutions in this domain

#### DAY 2 (13.09

Big Data in Health Care & Business Modelling Slot 1 Ivan Chorbev

> Big Data in Health Care - Scalable and Distributed Analysis and Learning from Big Data and current limitations to access of large-scale data in medicine (patient data, meta data, ethics, statistical approaches). Introduction to data processing. Ethics in data processing Introduction to Big Data. Cloud Computing and its use in Big Data processing; Data analysis used in Precision medicine

#### Slot 2 Flaviana Rotaru

- Health entrepreneurship lunch

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- Value-based business modelling and procurement strategies from a provider and payer perspective.
- Slot 4 Panel Discussion
- Ivan Chorbey, Flaviana Rotaru, Nick Guidemond





### NET (

#### DAY 3 (14.09)

#### Slot 1 Luiza Spiru and Mircea Marzan

- Predictive, Preventive and Personalised Medicine in the new paradigm of Longevity Medicine. Digital interventions in mental health for older adults - present and perspective
- Slot 2 Maddalena Illario
- Overview to innovative approaches to disease prevention and health promotion. Building synergies & collaborative approaches: mHealth Hub experience.
- Lund
- Slot 3 Stefan Busnatu
- Reinventing the patient doctor communication in the eHealth era. Slot 4 Panel discussion
- Luiza Spiru, Mircea Mărzan, Maddalena Illario, Ștefan Busnatu
- DAY 4 (15.09)

#### Practical Views

- Slot 1 Flaviana Rotan
- 14:00 Concluding remarks

Workshop Practical Views







... and the number of registered participants far exceeded the expectations

- ✓ 182 applications were evaluated based on several criteria: highest degree achieved, researcher profile URL, scientific area of research / work, affiliation, country, ECI researcher, gender balance
- ✓ 73 trainers and trainees attended the Training school, from 18 countries >> AT, BA, DE, DK, EL, ES, GE, HU, IL, IT, LV, MD, MK, NL, NO, PT, RO, TR
- Trainees with various backgrounds researchers, PhD students and professionals Medicine, ITC, AI, Smart healthy environments, Deep Learning in Computer Vision, Telemedicine, Disease Prevention with AI, etc.









Training School: The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

12-15 September 2022

#### AGENDA

#### DAY 1 (12.09)

13.30 Arrival of the participants & Press conference

#### 14.00 Welcoming remarks Luiza Spiru

14.15-16.00 Luiza Spiru, Nick Guldemond and Aleksandar Jevremovic

Panel discussions: Introductory remarks and Prevention Overview: the understanding of the total care process and Challenges

#### 16.00-16.30 Coffee break

16.30-18.00 Aleksandar Jevremovic

Sustainability and privacy aspects of ICT solutions in health promotion and disease prevention: challenges with balancing between solutions, stability and innovation, as well as privacy/security related problems with solutions in this domain

#### DAY 2 (13.09)

#### Big Data in Health Care & Business Modelling

- 09.30-10.00 Welcoming participants and Networking
- 10.00-11.15 Ivan Chorbev

Big Data in Health Care - Scalable and Distributed Analysis and Learning from Big Data and current limitations to access of large-scale data in medicine (patient data, meta data, ethics, statistical approaches)

#### 11.15-11.45 Coffee break

#### 11.45-13.00 Nick Guldemond

Value-based business modelling and procurement strategies from a provider and payer perspective. Part I

- 13.00-14.00 Lunch
- 14.00-15.30 Stefan Busnatu

Reinventing the patient doctor communication in the eHealth era

#### 15.30-16.00 Coffee Break

16.00-18.00 Panel Discussion

Ivan Chorbev, Nick Guldemond, Stefan Busnatu, Cosmina Paul





#### DAY 3 (14.09)

#### 09.30-10.00 Welcoming participants and Networking

#### 10.00-11.30 Nick Guldemond

Value-based business modelling and procurement strategies from a provider and payer perspective. Part II

#### 11.30-12.00 Coffee Break & Networking

#### 12.00-13.30 Cosmina Paul

Understanding technology adoption from the perspective of people aged 65 and over

#### 13.30-14.30 Lunch

14.30-15.30 Andreea Stamate

Frailty - clinicians teaching session

#### 15.30-16.00 Coffee Break and Networking

16.00-17.30 Luiza Spiru and Mircea Marzan

Predictive, Preventive and Personalised Medicine in the new paradigm of Longevity Medicine

Digital interventions in mental health for older adults - present and perspective

#### DAY 4 (15.09)

#### 09.30-10.00 Welcoming participants and Networking

10.00-11.15 Flaviana Rotaru

Practical views in health entrepreneurship

11.15-12.30 Maddalena Illario

Overview to innovative approaches to disease prevention and health promotion. Building synergies & collaborative approaches: mHealth Hub experience

#### 12.30-13.00 Coffee Break & Networking

13.00-14.00 Concluding remarks

Luiza Spiru, Maddalena Illario, Ivan Chorbev & Nick Guldemond

- ✓ The expectations of the participants have been previously recorded.
- Networking was by far the top interest of the participants while having fun was of least interest.
- Large majority were interested in Understanding prevention & ICT solutions in Health Promotion and Disease Prevention
- Most of the participants show interest in Big Data in Health Care & Business Modelling in Healthcare

#### Sectiunea 2 din 2 Training school - preliminary survey ž : Descriere (optional) First things first - what are you hoping to gain from this event? (Open question) Textul unui răspuns lung Please rank the following aspects of this event based on how important they are to you (where 5 is the most important and 1 the least important) 5 4 3 2 1 $\Box$ • $\overline{}$ $\overline{}$ Understanding. • $\overline{}$ $\overline{}$ ICT solutions i. • $\overline{}$ $\overline{}$ Big Data in Hea... Business Mode.. $\left[ \cdot \right]$ $\Box$ Ŀ · • • • • eHealth era • • $\Box$ $\square$ Ethics in data p... • $\overline{}$ $\square$ $\overline{}$ $\overline{}$ Networking

Having fun

Hands-on learn...

 $\square$ 

 $\square$ 

 $\square$ 

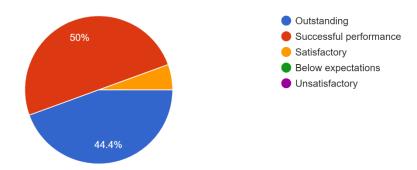


### Feedback

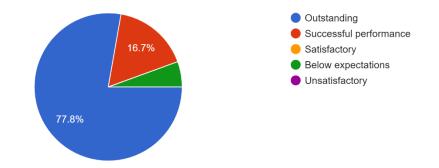
NET age-friendly

Overall, how do you appreciate the quality of the International Training School on Prevention and Business Modelling?

18 responses



Overall, how do you appreciate the venue, food, and information access ? 18 responses





### Further Suggestions to be integrated into further NET4Age Actions

- $\checkmark$  Infections in older people and the surveillance of the use of antibiotic
- ✓ Would like to see a variety of experts come together to present and discuss the ways in which factors of the surrounding medium (pollution, climate changes, geographical location, diverse stressors) influence the process of aging in different populations across the world + how to manage it (from a medical, economical & environmental point of view) + implementable ways to minimize the impact
- Promoting prevention policy at the micro (the individual level-couples/families/informal caregivers), mezzo (the group level), and macro (the community and governmental level-community organization, NGOs, administration, policy management) to perform more efficiently and more effectively the ICT solutions in health promotion and disease prevention. The role of public actors within the community (municipalities, public daycare centers, local health services/insurance companies) in increasing the implementation of digital innovative devices/services among old age people





The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling



NET<sub>age-friendly</sub>













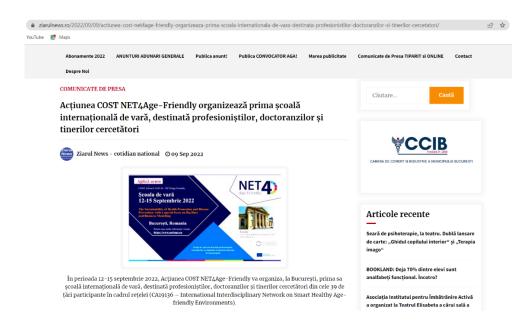




# The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

The COST NET4Age-Friendly action is organising its first Training School, targeting professionals, PhD students and young researchers.

https://ziarulnews.ro/2022/09/09/actiunea-cost-net4age-friendly-organizeaza-prima-scoalainternationala-de-vara-destinata-profesionistilor-doctoranzilor-si-tinerilor-cercetatori/





#### The Net4Age-Friendly Training School has officially began and it's being held in Bucharest, at the "Carol Davila" University of Medicine and Pharmacy.

https://ultima-ora.ro/a-inceput-scoala-de-vara-net4age-friendly-organizata-in-premiera-labucuresti-la-universitatea-de-medicina-si-farmacie-carol-davila/



# The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

ziarulnews.ro/2022/09/13/actiunea-cost-net4age-friendly-deschide-la-bucuresti-prima-sa-scoala-internationala-de-vara-destinata-profesionistilor-doctoranzilor-si-tinerilor-cercetatori-din-... 🖄 🖈

Abonamente 2022 ANUNTURI ADUNARI GENERALE Publica anunt! Publica CONVOCATOR AGA! Marea publicitate Comunicate de Presa TIPARIT si ONLINE Contac

Acțiunea COST NET4Age-Friendly deschide, la București, prima sa școală internațională de vară, destinată profesioniștilor, doctoranzilor și tinerilor cercetători din cele 39 de țări participante în cadrul rețelei (CA19136 – International Interdisciplinary Network on Smart Healthy Age-friendly Environments).





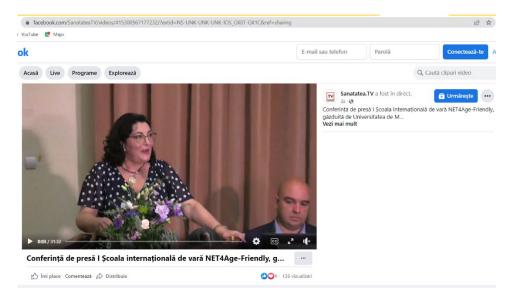


Asociația Institutul pentru Îmbătrânire Activă a organizat la Teatrul Elisabeta a cărui sală a fost arhiplină, cea de-a III-a ediție a Galei "SENIORI de COLECȚIE" ; invitat special a fost Gen.Lt.(rt) Dr.Ing. DUMITRU DORIN

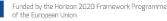
The COST NET4Age-Friendly action is organising its first Training School, targeting professionals, PhD students and young researchers from the 39 countries that are participating within the network (CA19136 – International Interdisciplinary Network on Smart Healthy Age-friendly Environments)

https://ziarulnews.ro/2022/09/13/actiunea-cost-net4age-friendly-deschide-labucuresti-prima-sa-scoala-internationala-de-vara-destinata-profesionistilordoctoranzilor-si-tinerilor-cercetatori-din-cele-39-de-tari-participante-in-ca/

## Press Conference before the start of the NET4Age-Friendly Training School <a href="https://fb.watch/fvhom9RfLT/">https://fb.watch/fvhom9RfLT/</a>





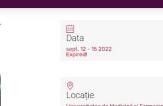


### The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

European Training School held at the "Carol Davila" University of Medicine and Pharmacy, Bucharest https://www.eventsonline.ro/events/scoala-europeana-de-vara-la-umf-carol-davila-din-bucuresti/







Universitatea de Medicină și Farmacie "Carol Davila" Bucurest

Mai mult Link eveniment



#### The NET4Age-Friendly - Școala europeană de vară

Data de inceput: 2022-09-12 00:00

Data de sfarsit: 2022-09-15 23:59

Locatie: University of Medicine and Pharmacy "Carol Davila", 8 Bulevardul Eroii Sanitari, Bucharest, Romania

Organizator: ANA ASLAN International Foundation, University Politehnica of Bucharest, "CAROL DAVILA" University of Medicine and Pharmacy in Bucharest (UMFCD)

> The NET4Age-Friendly Training School https://rohealth.ro/detalii-curs/3



### The Sustainability of Health Promotion and Disease Prevention, with a special focus on Big Data and Business Modelling

### Ştirile **TV**

 Z ACTUALITATE SPECIAL POLITIC JUSTIȚIE SOCIAL ECONOMIE EXTERN SĂNĂTATE ME

#### REFERENDUM TVR

Caută pe stiriletvr.ro				
OK STIRI.	FVR.RO ≻ Actualitate			

#### Medici, experți IT și cercetători din toată Europa au discutat la București despre soluții prin care inteligența artificială ne va ajuta să îmbătrânim frumos

Revoluția digitală ne va ajuta să înaintăm în vârstă sănătoși și activi. Ceasurile și brățările smart deja sunt folosite pentru a ne monitoriza starea, dar și vârstnicii vor fi ajutați de noile tehnologii. De exemplu, casele inteligente vor putea alerta singure ambulanța în caz de urgență. Cercetători din toată Europa au discutat la București despre soluții prin care inteligența artificială ne va ajuta să îmbătrânim frumos.

25 Septembrie 2022, 21:28 Știrile TVR | 📇 PRINT



Training school – reflected on national television (TVR) http://stiri.tvr.ro/medici--experti-it-si-cercetatori-din-toataeuropa-au-discutat-la-bucuresti-despre-solutii-prin-careinteligenta-artificiala-ne-va-ajuta-sa-imbatranimfrumos\_914860.html#view

ttps://umfcd.ro/deschiderea-scolii-internationale-organizate-prin-actiunea-cost-net4age-friendly/

Deschiderea Școlii Internaționale organizate prin Acțiunea COST NET4Age-Friendly



leri, 12 septembrie 2022, în Amfiteatrul G.E. Palade din cadrul Facultății de Medicină s-a dat startul Școlii Internaționale organizate prin Acțiunea COST NET4Age-Friendly, în parteneriat cu Fundația Ana Aslan Internațional, Universitatea de Medicină și Farmacie "Carol Davila" din București – Centrul de Inovație si e-Health.

Evenimentul ce se desfășoară în perioada 12-15 septembrie este destinat profesioniștilor din medicină și domeniul IT, doctoranzilor și tinerilor cercetători. Tema acestuia este PREVENȚIA: "Durabilitatea pentru prevenirea bolilor și promovarea sănătății".

Obiectivul general al Școlii este de a stimula o abordare internațională și interdisciplinară pentru comunitatea de cercetători si alte părti interesate, pentru a pava drumul către inovarea în



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Pr

Deschiderea Școlii Internaționale organizate prin Acțiunea COST NET4Age-Friendly - umfcd Dissemination

## **SOCIAL MEDIA**

NET<sub>4</sub>

### Facebook (Aug-Sep, 2022)

### Likes: 6.7K, Followers: 7K

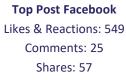
Number of Posts	Likes & Reactions	Comments	Shares	Reach
15	871	41	78	49,413

### LinkedIn (Aug-Sep, 2022)

### Followers: 423

Number of Posts	Likes & Reactions	Comments	Shares	Impressions
7	60	2	12	1373





Reach: 11,330

In perioada 12-15 septembrie 2022, Acțiunea COST NET4Age-Friendly va organiza la București prima sa școală internațională de vară, în parteneriat cu Fundația Ana Aslan Internațional, destinată profesioniștilor, doctoranzilor și tinerilor cercetători din cele 39 de țări participante în cadrul rețelei (CA19136 - International Interdisciplinary Network on Smart Healthy Age-friendly Environments).

Şcoala europeană de vară are ca temă principală PREVENȚIA "Sustainability for disease prevention and health promotion", se va desfășura în limba engleză și va fi găzduită de Universitatea de Medicină și Farmacie "Carol Davila" București, Sala de Consiliu, Bd. Eroii Sanitari nr. 8, conform programului afișat: https:// www.net4age.eu/sites/default/files/ CA19136%20Call%20for%20trainees%20for%20our%2 Otraining%20school.pdf.



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### **Top Post LinkedIn** Likes & Reactions: 18 Reach: 597

The first day of the **NET4Age-Friendly** Training School in Bucharest is done! Today's sessions have been dedicated to the introduction of the trainers, trainees, plus the first lecture of the Training School presented by **Aleksandar Jevremovic**.

We're excited for the next few days. See you tomorrow!



# Testimonials ...

### Prof. Luiza Spiru

NET 4





### Prof. Nick Guldemond



### Prof. Ivan Chorbev















ANA DASLAN

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ANA ASLAN

# Networking

### Coffee breaks ...

NET 4

