



# NOVARA NEW TEACHING AND RESEARCH HOSPITAL

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Regione Piemonte, Regional Councillor for Innovation  
and Economic Development

***Novara, Thursday 28th February 2019***

ORGANIZZATO DA



PROMOSSO DA



SI RINGRAZIA



# RATIONALE

## ***Novara Teaching and Research Hospital***

Hospital hub open to the public as primary component of the future city

Centre at international level for auto-immune diseases

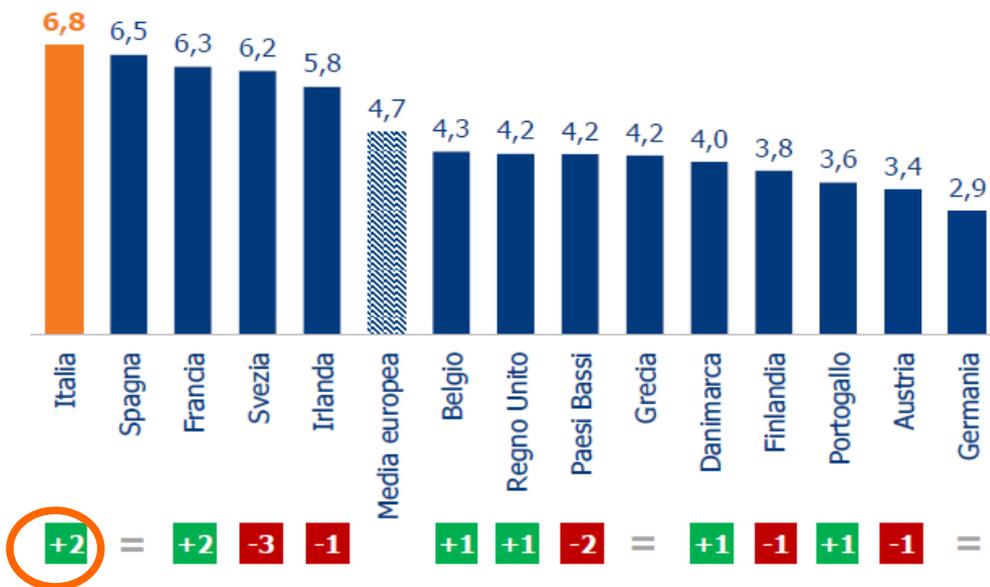
Model in a network with similar projects in Italy, together with the *Torino Teaching and Research Hospital*

It promotes

- Co-operation among local businesses, research centres, and universities with the creation of added value and diversification of services
- Competitiveness through the engagement of biotechnological companies
- Technological transfer from biomedical innovation to industry

# IN ITALY

## Indice dello Stato di Salute, (punteggio 1-10), 2018



## Posizionamento dell'Italia nei singoli KPI



— Italia — Media europea X Aree critiche per l'Italia

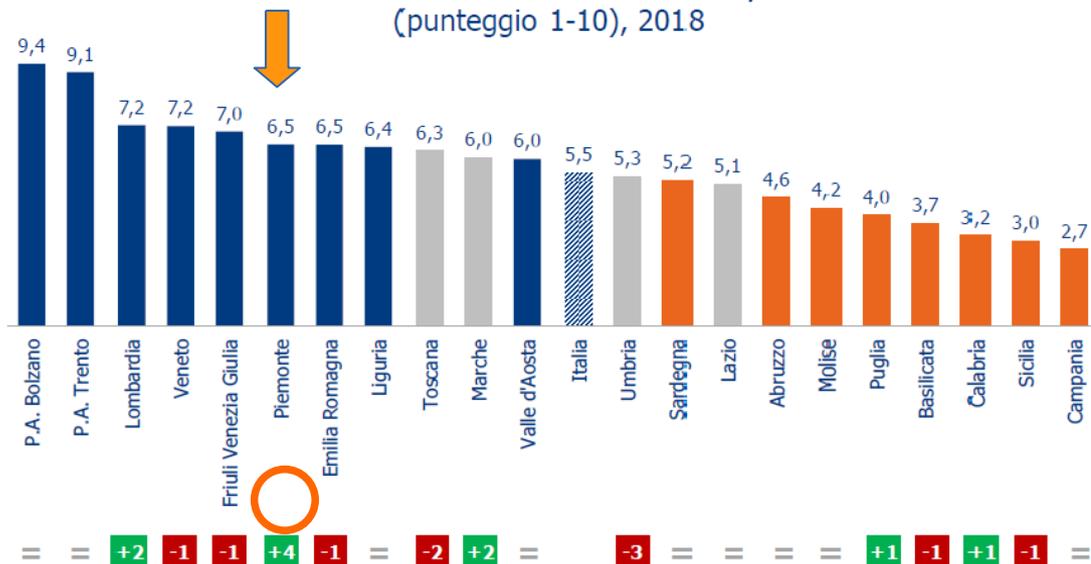


# IN PIEDMONT

Lo stato di salute è però caratterizzato da un notevole livello di difformità regionale

1

**Meridiano Sanità Regional Index**  
**Indice dello Stato di Salute,**  
(punteggio 1-10), 2018



Piedmont welcomes and promotes an integrated health system - in compliance with the provisions of the National and Regional Strategy of smart specialisation – through the development of an adequate engagement of the industrial system.

## NATIONAL STRATEGY OF SMART SPECIALISATION

### Aree Tematiche nazionali SNSI

1. Aerospazio e difesa
2. **Salute, alimentazione, qualità della vita**
3. Industria intelligente e sostenibile, energia e ambiente
4. Turismo, patrimonio culturale e industria della creatività
5. Agenda Digitale, Smart Communities, sistemi di mobilità intelligente

Salute (coord. Min. Salute)

Agrifood (coord MIPAAF)

Bioeconomia (coord. MISE)

Piedmont (coord. Regions)

Active & healthy ageing: tecnologie per l'invecchiamento attivo e l'assistenza domiciliare

E-health, diagnostica avanzata, medical devices e mini invasività

Medicina rigenerativa, predittiva e medicina di precisione

Bioteχνologie, bioinformatica e sviluppo farmaceutico

Nutraceutica, Nutrigenomica e Alimenti Funzionali

# NATIONAL STRATEGY OF SMART SPECIALISATION

smart

1. Aerospace
2. Automotive
3. Green chemistry / Cleantech
4. Mechatronics
5. *Made in Piedmont (Agrifood and Textiles)*
6. Health

techs

resource  
efficiency

- eHealth
- Diagnostics
- Scientific instruments
- Imaging
- Personalised medicine
- Regenerative medicine
- Prosthetics
- Pharmaceutical biotechnologies
- Bioinformatics and ICT for health research
- Innovative and targeted pharmaceutical approaches (such as orphan drugs for rare diseases)
- Oncology, Cardiovascular, CNS, metabolic diseases
- Bioengineering and surgical robotics
- Advanced biomedical solutions

## EUROPEAN HUBS

4 main development macro reference areas at national and international level:

1. ***E-health, advanced diagnostics, medical devices and minimal invasiveness;***
2. ***Biotechnologies, bioinformatics and pharmaceutical development;***
3. ***Regenerative, predictive, and personalised medicine;***
4. ***Nutraceuticals, nutrigenomics and functional foods.***



# THE NETWORK

Over the last years the following items have gained great importance:

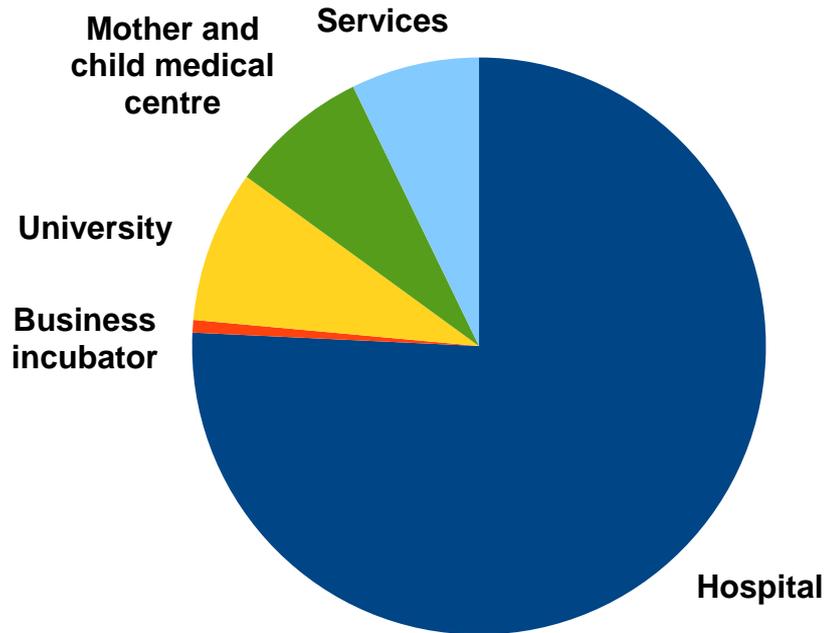
- Strategic partnership agreements among businesses in the area biotechnologies for health;
- Open innovation advanced model at international level;
- Network competitiveness.



NOVARA

## ***Novara Teaching and Research Hospital***

**SUFACE (SQM)**



320 million Euros expected investment, of which 95 granted by the State with funds assigned to the Region, 5.2 million with funds of the Region, and 219 granted by the private player executing the project.

The new facility will be located on a 390 thousand sqm-large area, in proximity to Piazza d'Armi and the former armoury and will cover 167 thousand sqm (including the area for University, business incubator, kindergarten), whereas the effective hospital will be on 156 thousand sqm.

The Azienda Ospedaliera Universitaria, the University Piemonte Orientale and the Municipality of Novara are included in the project.

## TORINO TRH (Teaching and Research Hospital)

✓ *International center of reference for diagnosis and treatment of major diseases*

✓ *Active site for the technological transfer of biomedical discoveries to industry*

## ***Torino Teaching and Research Hospital***

An over 400 million Euros investment that consists of four functional and interconnected centres aiming at:

- replacing the hospitals that currently make up the Città della Salute e della Scienza
- hosting clinical, pre-clinical and translational research
- offering a location for teaching activities (medicine and health professions graduation courses)
- hosting staff

### **• HEALTHCARE AND CLINICAL TRAINING CENTRE**

SURFACE: 127,000 SQM (5,000 SQM FOR CLINICAL TRAINING)

BEDS: 1,040

### **• TRAINING CENTRE**

SURFACE: 31,000 SQM

ACTIVITIES: MEDICAL SCHOOL COURSES

USERS: 8,600 USERS (5,000 STUDENTS)

### **• RESEARCH CENTRE**

SURFACE: 10,000 SQM

USERS: 1,000 (TEACHERS, ASSISTANTS, PhD STUDENTS)

### **• ACCOMMODATION CENTRE**

SURFACE: 8,000 SQM

ACCOMODATION PLACES: 190 IN A GUESTHOUSE FOR TEMPORARY VISITORS, 30 RESERVED TO DISCHARGED PATIENTS WHO NEED A TEMPORARY, LOW INTENSITY HEALTHCARE SUPPORT

# BUSINESS LANDSCAPE



35 companies



80 members including



# IRCAD



First autoimmune diseases centre combined with translational medicine

The centre in the Novara Department for Health Sciences includes:

Department for Translational Medicine

Department for Pharmacological Sciences

Azienda Ospedaliero-Universitaria "Maggiore della Carità" di Novara

Ospedale Infantile Regina Margherita di Torino (University of Turin)

Ospedale S. Croce e Carle di Cuneo



UNIVERSITÀ DEL PIEMONTE ORIENTALE



The Centre envisages the development of basic and application-oriented research aiming at the study of mechanisms causing autoimmune diseases as well as the development of new diagnostic tests and new therapeutical approaches.

***INFRA-P REGIONAL MEASURE- Support to projects for the implementation, support and extension of **public research projects.*****

***CAAD project***

Interdepartmental Centre for Translational Research on Autoimmune and Allergic Diseases – CAAD  
4 UPO Departments, located in the new IPAZIA centre in NOVARA

Setting-up a health facility, research labs and proteomics, genomics, bioinformatics, biobank series.

**Value: 5 M€**

**Contribution: 2 M€**



***PRISMA UPO project***

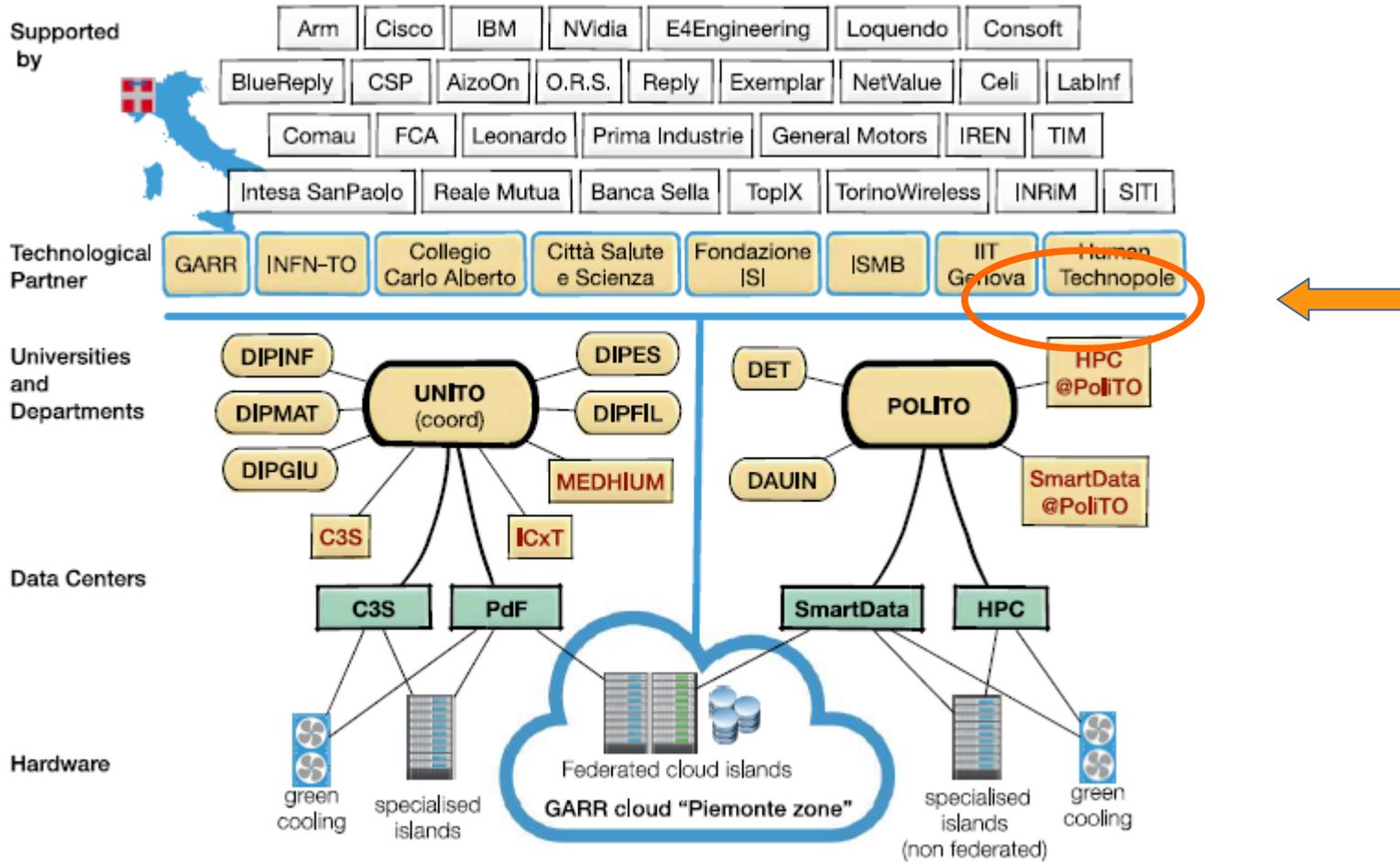
Extension and strengthening of existing IR facilities for NMR technologies

Operational capacity strengthening through the acquisition of new instruments and the modernisation of the existing ones aiming at a more efficient common management of the patients' NMR analysis traffic.

**Value: 1 M€**

**Contribution: 0.5 M€**

# But also on INFRA-P



## HPC4AI: AI-on-demand platform

# HEALTH REGIONAL PROJECTS – ROP- ERDF 2014-2020

## HEALTH AND WELLBEING PLATFORM - (20 M Euros)



## CANP La Casa nel Parco – (Az. Ospedaliera di Novara)



- ✓ E-health through ICT applications in health process management, telemedicine, and telemonitoring
- ✓ Information and health services accessibility and interoperability, health care decentralisation, resources rationalisation
- ✓ Home Hospitalisation for the Teaching and Research Hospital in Turin and Novara
- ✓ Rethinking the Home Hospitalisation model already in the phase of hospital design, its clinical processes and projects as well as embedding it in the territorial health services system

**Investment 11.5 M Euro**  
**of which: 240 k Euro granted by AO Novara**

*2 large companies Consoft Sistemi and Santer Reply)*

*14 SME's*

*2 Universities (Università and Politecnico di Torino with 8 Departments)*

*2 private research institutes (Collegio Carlo Alberto and Fondazione ISI)*

*4 hospitals (Città della Salute di Torino, Ospedale Maggiore della Carità di Novara, Ospedale San Luigi di Orbassano, Fondazione Don Gnocchi a Torino)*

# HEALTH REGIONAL PROJECTS – ROP- ERDF 2014-2020

## ReHOME – UPO



Post-stroke, Light Cognitive Disorder, Parkinson

A technological platform able to integrate different components of re-hab needs - physical (recovery of posture, walking, upper limb functionality) and cognitive (learning, memory, language, etc.)

Low-cost services of health-care continuity through applications in telemedicine, telemonitoring, and telere-hab managed by a contact-centre

An immersive reality context made of exergames for cognitive-physical re-hab, complementary technologies in order to enjoy re-hab treatments and the automatic validation of their correct execution.

**Total investment: 6 M Euro**  
**of which 220 k Euro granted by UPO**

*1 large company (Engineering)*

*5 SME's*

*2 Universities (Università di Torino and Università del Piemonte Orientale)*

*3 research institutes (CNR, IIT, Ist, It. Auxologico)*

*1 hospital (Città della Salute di Torino)*

## NEXT STEPS

Analysis check of research excellences:

UPO

Istituto ENI DONEGANI

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✓ Identification of the intervention areas

HEALTH:

BioTech

Autoimmune diseases

NON-HEALTH

biocompatible materials

Additive manufacturing / 3D printing

Agrifood - Nutraceuticals