

International openness
and sustainable
development:
the role of universities for
social and environmental
justice

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Inequalities, Social justice, Peace studies

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SUSTAINABLE DEVELOPMENT GOALS



Outline

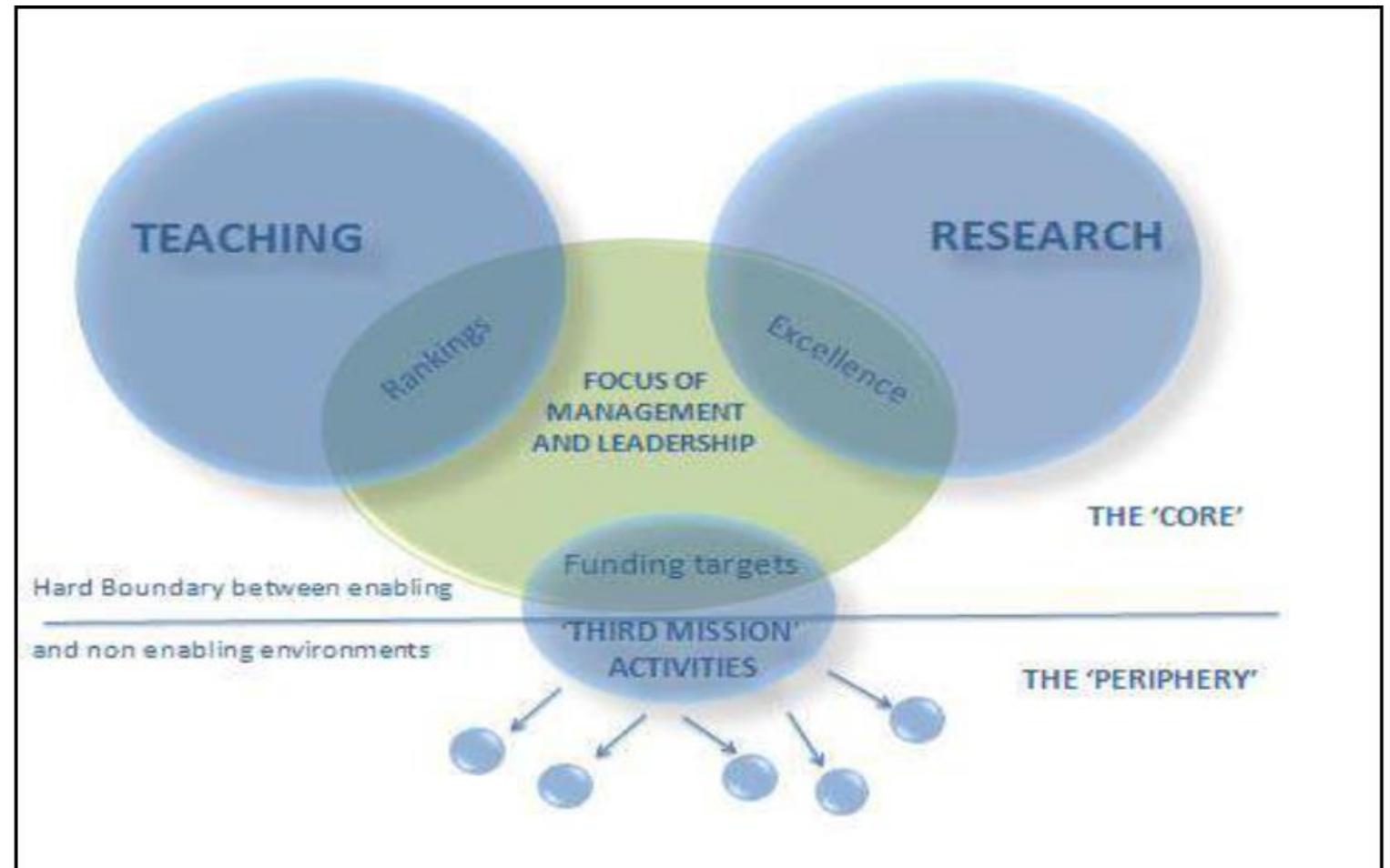
- International context: the missions of «civic universities»
- International integration, disaster resilience and local development: the case of L'Aquila
- Sustainable development, social justice and international openness: the strategic agenda of the University of L'Aquila
- The role of the University of L'Aquila for disaster resilience
- Concluding remarks

International context: the missions of «civic universities»

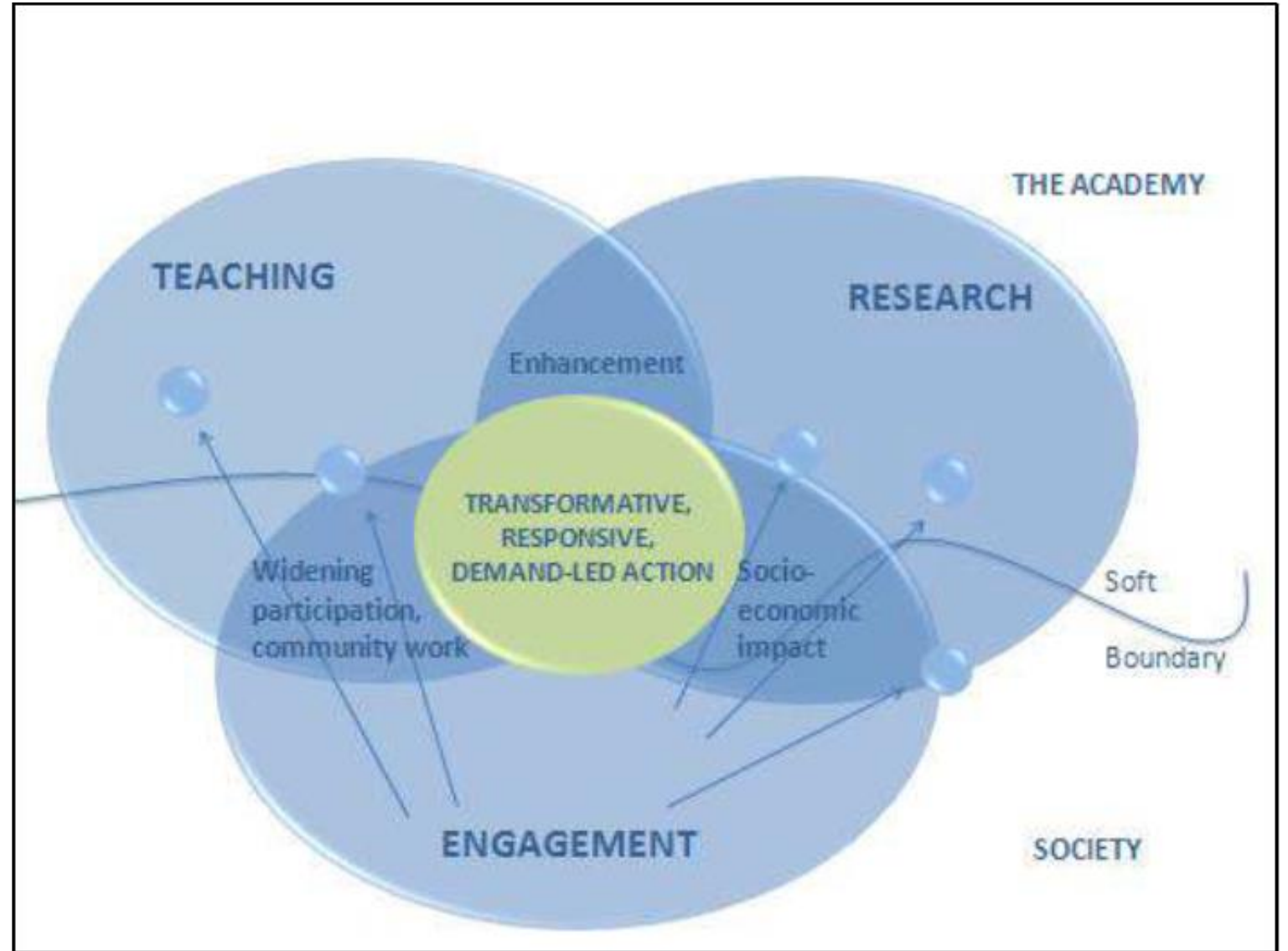
The missions of «civic universities»

- Three missions in the history of universities:
 - starting in the Middle Ages as institutions of **higher education**,
 - they assumed the nature of **research** centres only in a later period.
 - More recently, the acquisition of the "third mission": the **entrepreneurial functions** of universities, initially limited to technology transfer activities and then gradually extended to all the different actions with which universities can contribute to **economic growth and societal progress**.
- Gradual intensification of relations between universities, institutions and local communities

The Un-civic University (Goddard et al., 2016)



The Civic University (Goddard et al., 2016)



The missions of «civic universities»: sustainable local development

- The natural result of this vision is the civic university's commitment to contribute to the achievement of the **Sustainable Development Goals** set by the international community in the United Nations 2030 Agenda.
- Greater importance in cases, such as that of L'Aquila, in which
 - **university students** represent an important **share of the total population**
 - the university is one of the essential parts of the **economic base of the local system**, so much so that it can be configured as an element of comparative advantage and a factor of development
 - the university is located in **relatively disadvantaged areas**
 - and/or in areas more **vulnerable to natural or anthropogenic disasters**

The missions of «civic universities»: international openness

- The cultural and social interaction between the university and its local community can go so far as to affect the **identity of the city and its symbolic representation**, as perceived by its inhabitants and from the outside.
- As the urban system evolves as a "**university city**", his **university** is rooted more and more deeply, while continuing to play the fundamental role of **connecting node with international networks of knowledge creation and dissemination**, which is the essence of its function as a "**civic university**".
- The goal is to increase the degree of **international openness** of the local systems in which university activities are carried out,
 - **Rejecting identitarian obsessions**
 - **Defending the ethical, economic and social value of globalization**
 - **Generating opportunities for encounter and mutual enrichment between different cultures.**

The missions of «civic universities»: sustainable development and social justice

- **Sustainable development**

- **Environmental** aspects: our responsibility towards future generations and other forms of life
- **Economic** aspects: a new pattern of growth, based on the idea of the «circular economy»
- **Social** aspects: contrasting inequalities

- The idea of **social justice** as «sustainable substantial freedom», that is «the capacity to expand the freedoms we have reason to value» (Amartya Sen, *The Idea of Justice*, 2009) and to ensure at least the same freedoms for the next generations (**environmental justice**)
- Article 3 of the Italian Constitution (1948):

«**All citizens** have equal social dignity and are **equal** before the law, **without distinction of sex, race, language, religion, political opinion, personal and social conditions.**

It is the duty of the Republic to **remove those obstacles of an economic or social nature which constrain the freedom and equality of citizens, thereby impeding the full development of the human person and the effective participation of all workers in the political, economic and social organization of the country.**»

The missions of «civic universities»: social and environmental justice

- Inequality of what?
 - Income
 - Wealth
 - Opportunities
 - Social recognition
- Inequality between whom?
 - Between people around the world
 - Between people in individual territories
 - Between territories in the world
 - Between countries in the world
 - Between regions within countries
 - Between generations (over time)
- Have inequalities increased?
- Reactions to inequalities (or their perception)
 - Common sense and its manipulation
 - Increasing inequalities and the revolt of “places that don’t matter” (A. Rodriguez-Pose)

The missions of «civic universities»: international cooperation, peace and strong institutions

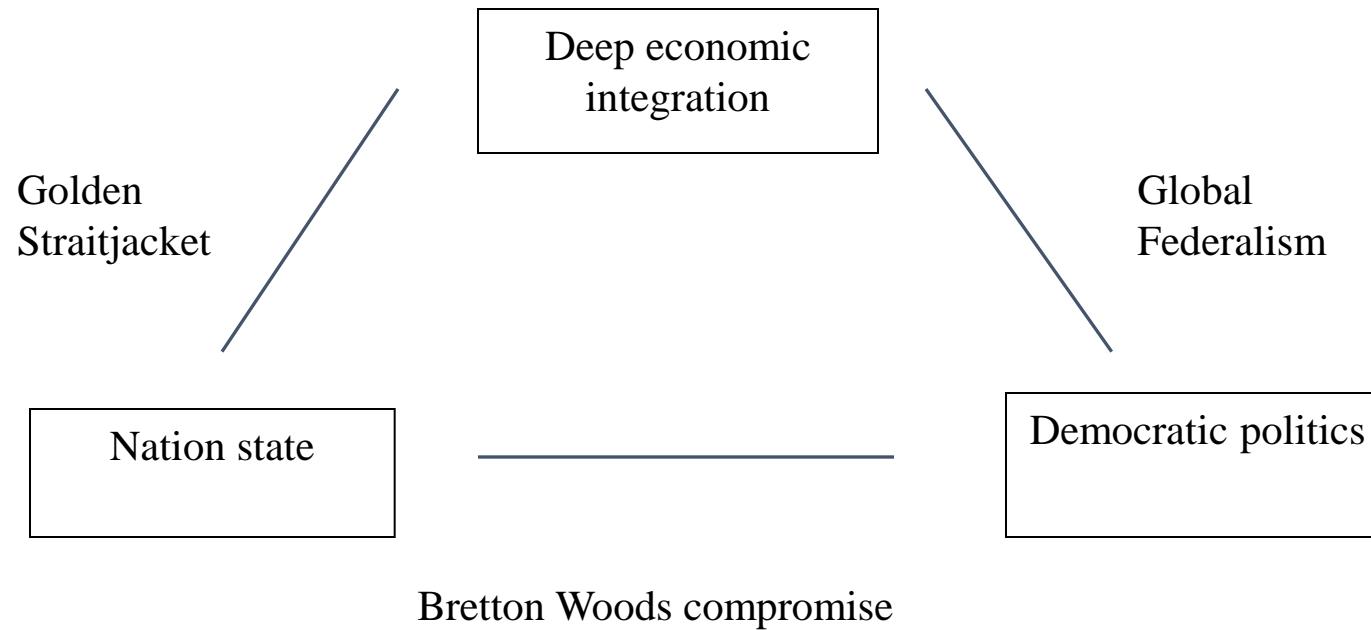
- The state of international relations
 - Russia's aggression against Ukraine shows the tragic threats nationalist ideas pose to international peace and security
 - The rhetoric of competitiveness and nationalist policies
 - The nationalist hoax: global challenges and local powers

«Anche le guerre diventeranno più rare, finché esse non scompaiano del tutto, nel giorno in cui sia per sempre fugato dal cuore e dalla mente degli uomini **l'idolo immondo dello Stato sovrano**»

« Even wars will become rarer, until they disappear completely, on the day when **the filthy idol of the sovereign state** will be banished forever from the hearts and minds of men»

Luigi Einaudi («Il mito dello Stato sovrano», in *Risorgimento liberale*, 1945)

The political trilemma of the world economy (Dani Rodrik, 2011)



Pick two, any two

Where next? The argument for global federalism

- Technological progress
- World appetite for gains from integration
- Attachment to democratic rights

The Covid-19 pandemic and Italian universities

- The **Covid-19 pandemic** has destroyed lives, jobs and businesses throughout Italy. To avoid a long-term socio-economic crisis, **extraordinary measures** have been taken to accompany the recovery and generate conditions for sustainable development.
- The **investments made by the European Union (NGEU)** can help this regeneration, by giving an opportunity to increase the environmental and social sustainability of production systems, especially in disadvantaged areas.
- But the availability of financial resources is not a sufficient condition: the **capacity of local and regional communities to absorb the investment** is limited, as evidenced by the experience of European structural funds.
- Who will be able to identify these opportunities, transforming them into projects with which to feed post-pandemic regeneration strategies?
- **Can Italian universities help regenerate local and regional economies**, particularly in the country's inner areas and urban suburbs?

The Covid-19 pandemic: learning from our mistakes

- Critical assessment of the pandemic crisis, based on the principles of the Global Preparedness Monitoring Board
 - responsible leadership;
 - engaged citizenship;
 - strong and agile systems for health security;
 - sustained investment;
 - robust global governance of preparedness.

Next Generation EU and the social role of universities

- Using the National Plan for Recovery and Resilience to reorganize the role of universities in the social diffusion of knowledge and creative capabilities
 - A DG-Reform programme aimed at changing regulations and incentives
 - Strengthening university staff (knowledge exchange managers, statistical offices, communication offices...)
 - Reforming the system of higher technical education and PhD schools
 - Reorganising the system of 'knowledge intermediaries' between universities, firms and other partners
 - International competence centres on key enabling technologies
 - Local innovation eco-systems, based on regional specialisations, with a particular attention to left-behind regions

Specific initiatives for 'left-behind' regions

- Universities can play an important role in fighting territorial inequalities
 - Attracting students through work experience opportunities (universities as social laboratories of creativity, connected to local specificities)
 - Organizing long-life education in cooperation with the school systems, so as to address new learning needs (the digital transformation)
 - Cooperating with the civil society, the business community and local public administration to address societal challenges
 - Programmes to repopulate inner areas, creating new work opportunities
- This requires that all universities are endowed with specific resources for their social initiatives, with a particular attention to disadvantaged regions
 - The opposite of what implied by the rethoric of competition among excellence centres

International integration, disaster resilience and local development

The case of L'Aquila

Back in the past: external linkages and local development

- The power of L'Aquila in 13th century was based on the close connection between the city and its mother-villages, which had established the city as a federation, each of them building a borough and considering it as a part of the mother-village.



Back in the past: external linkages and local development

- From its beginnings **the city** constituted an important market for **the surrounding countryside**, which provided it with a regular supply of food
- From the fertile valleys came the precious **saffron**.
- Surrounding mountain pastures provided summer grazing for numerous transhumant flocks of **sheep**, which in turn supplied abundant raw materials for **export** and, to a lesser extent, **small local industries**.
- This, in time, brought **craftsmen and merchants from outside the area**.
- Within a few decades L'Aquila became a crossroads in communications between cities within and beyond the Kingdom, thanks to **the so-called "via degli Abruzzi"**.



Back in the past: external linkages and local development

- In 1311 **King Robert of Anjou** granted L'Aquila with privileges which had a decisive influence on the development of trade.
- These privileges **exempted all activities related to sheep-farming from customs duties on imports and exports.**
- This was the period in which **merchants from Tuscany** (Scale, Bonaccorsi) **and Rieti** purchased houses in the city.
- Hence the conditions for **radical political renewal**: in 1355 the trade guilds of leather-workers, metal-workers, merchants and learned men were brought into the government of the city.
- Eleven years earlier, in 1344, the King had granted the city its own **mint**.



Back in the past: external linkages and local development

- In the middle of the 14th century the city was struck by **plague epidemics** (1348, 1363) and **earthquakes** (1349).
- **Reconstruction** began soon, however. In the 14th–15th century **Jewish families** came to live in the city.
- **The 15th century was the golden age** of the city of L'Aquila. After the reconstruction, it prospered for its **trade**, especially of wool and saffron, extending its relations in France, the Netherlands and Germany, and quickly becoming **the most important city of the Kingdom after Naples**.
- In 1481 **Adam of Rottweil**, a pupil and collaborator of Johann Gutenberg, obtained permission to establish a **printing press in L'Aquila**.



Back in the past: external linkages and local development

- **The 1703 earthquake** destroyed the city almost completely, killing more than one third of its population.
- In the 1712 census, L'Aquila showed 2,684 inhabitants divided into **670 families, of which 149 were strangers attracted by the possibilities offered by the reconstruction.**
- In the following twenty years, until 1732, 160 new families arrived, contributing to the **repopulation of the city.**



The 2009 earthquake



L'Aquila: the reconstruction challenges

- A slow reconstruction, whose economic benefits are captured by strong interest groups and are anyway going to fade over time
- A fragile urban system: elderly population, rentiers, public administration...
- A manufacturing base concentrated in few externally-controlled firms
- A weak public administration
- Limited social participation in local policies
- Widespread fear of international integration
 - «L'Aquila first»...
 - Invisible immigrant workers
- The difficult role of GSSI and the University of L'Aquila: developing connections between local communities and global innovation networks

Sustainable development, social justice and international openness

The strategic agenda of the University of L'Aquila

Social justice, sustainable development and international openness: The strategic agenda of the University of L'Aquila

- Scenario: the future of the University of L'Aquila after the 2009 earthquake
- Participatory building of the University of L'Aquila's strategic plan
- The University of L'Aquila as a laboratory of social innovation
- The University of L'Aquila's commitment to sustainable development and social justice
- The system of control indicators of the University Strategic Plan
- A new metrics for the social impact of universities

Scenario: the future of the University of L'Aquila after the 2009 earthquake

- The situation of the Italian university system
 - Public spending cuts
 - Aging of staff
 - Regulatory constraints on the expansion of the educational offer
- Local problems
 - The material and immaterial reconstruction
 - The difficulties of the economic and social recovery in an internal area of the South
- The challenges
 - How to attract students and teachers?
 - How to respond to the new training needs imposed by the digital revolution?
 - How to combine physical reconstruction, sustainable economic development and social justice?
 - How to counter the wave of rejection against international integration?

Scenario: the future of the University of L'Aquila after the 2009 earthquake

- The opportunities to be seized
 - The OECD Report: *Policy Making after Disasters: Helping Regions Become Resilient. The case of Post-earthquake Abruzzo* (2013)
 - The strategy for L'Aquila
 1. City of knowledge;
 2. Smart city;
 3. City of creativity;
 4. Open and inclusive city.
 - The Gran Sasso Science Institute
 - The Re-Start programme: 4% of the funds for physical reconstruction earmarked for economic and social development projects
 - The National Plan for Recovery and Resilience and the Complementary Fund for the areas hit by the 2016-17 earthquake
 - The new cycle of European cohesion policies

Participatory building of the University of L'Aquila's strategic plan

- Strategic guide-lines: a vision for the future
- Specific projects with measurable and verifiable objectives
- Consultation of the active forces of the local community
 - To question the way in which the University carries out its work
 - To discuss and share a project for the economic and social revitalization of the territory
 - To build together a system of progress indicators, to be used to verify the extent of the changes that we will be able to make

The University of L'Aquila as a laboratory of social innovation

- The University should be "understood as a **laboratory of creativity**, which becomes an **active agent of local development**, enhancing its own **endowment of skills**, putting it **at the service of the community** and training its young people (students and researchers) in the ability to **undertake new initiatives in cultural, economic and social fields.**"
(Strategic guidelines of the University of L'Aquila 2014-2019)
- **Work-training experiences of students** as a factor of attraction for the University

The University of L'Aquila's commitment to sustainable development and social justice: chapter 3 of the 2020-25 Strategic Plan

1. Health and wellness: *Taking care of all people*
2. Respect for the natural environment: *A commitment to justice between generations*
3. Knowledge exchange and sustainable development: *Connecting local systems to global innovation networks*
4. Culture and territory: *A local identity open to the world*
5. Reduction of inequalities: *Tackling obstacles to the "full development of the human person"*
6. International cooperation and migration, between territory and development: *A horizon of peaceful coexistence for the human community*
7. Internationalization and cooperation in training activities: *Building together new paths for the dissemination of knowledge*

The system of control indicators of the University Strategic Plan

- **Implementation indicators**, relating to the progress of actions planned but not yet completed;
- **Outcome indicators**, relating to the final result of the planned actions, limited to what is most strictly dependent on our activity;
- **Social impact indicators**, relating to the effectiveness of our activities, which is also heavily affected by external factors beyond our control.

A new metric for the social impact of universities

- What is it for?
 - **Strategic management:** Clarify the desired goal to those who govern the actions of universities and to the subjects to whom they are aimed
 - **Social accountability:** Motivate and make the intervention monitorable and promote public debate, extracting information from all participants
 - **Impact assessment:** Measure the expected and actual results with respect to their starting point, offering inputs for impact evaluations conducted with appropriate statistical methods
- What is it *not* for?
 - To give **rewards and penalties**
 - To compile **rankings** of universities
 - To regulate the distribution of **financial resources**

A new metric for the social impact of universities: goals

1. Ability to **attract students** and **contrast inequalities in the fruition and quality of university studies**
2. **Awareness by students** of the social and cultural context, of their constitutional rights / duties and of the social impact of each discipline
3. **Dignity of work and its autonomy**, within universities and supplier and partner companies
4. **Environmental sustainability** of the activities of universities and their supplier and partner companies
5. **Social dissemination of knowledge and innovative and creative skills**
6. Quality and universal accessibility of fundamental **social services** and the **environment** in the territory or in other communities with which the University interacts
7. **Awareness, skills and role of the population** regarding **innovations** in research and culture
8. Awareness and exercise by the population of **constitutional rights / duties to protect social justice**

The role of the University of L'Aquila for disaster resilience

Civic universities in vulnerable areas

- In areas vulnerable to natural and anthropogenic disasters civic universities can disseminate knowledge, promote social innovation and connect local and foreign businesses, public institutions and communities.
- Public-private cooperation is essential not only for urban renewal, but also for the regeneration of peripheral areas.
- For example, a successful reconstruction strategy for areas affected by natural disasters should aim to attract internal and foreign migrants and enterprises, so as to counter demographic decline and regenerate the foundations of economic and social development.
- In this context, public-private cooperation is necessary to create favourable conditions for investment and immigration.

Disaster resilience: learning from our mistakes

- Critical assessment of the reconstruction process after the 2009 earthquake, based on the principles of the Sendai Framework for Disaster Risk Reduction
 - Understanding disaster risk
 - Strengthening disaster governance
 - Investing in disaster risk reduction and preparedness for effective response and resilience
 - «Build Back Better» in recovery, rehabilitation and reconstruction

Integrating the disaster experience into future governance

- Digital technologies can play an important role in deepening our understanding of disaster risk, vulnerability and exposure.
- Moreover, they can be used to improve the quality of business strategies and public policies for disaster preparedness, resilience and reconstruction.
- Civic universities can play a fundamental role in this domain
 - The Open Territories project: <https://territoriaperti.univaq.it/>
 - High-Performance Computing for Disaster Resilience (HPC4DR): a competence centre connecting eight universities and four national research centres operating in regions exposed to natural disasters

«Territori Aperti»

Data, knowledge and labour for the progress of areas affected by natural disasters

- Interdisciplinary Center for Documentation, Training and Research
 - Prevention and management of natural disasters
 - Reconstruction and development of the affected areas
- An integrated **information system** open to social sharing
- **Training and communication** activities
- **Research**: an international network of skills on the sustainable development of territories hit by natural disasters

«Territori Aperti» Information System

- “Territori Aperti” makes the wealth of data and information on natural disasters and reconstruction processes available to citizens, businesses, social organizations and institutions.
- The information system is integrated into the European *SoBigData network*, in order to apply the most advanced technologies for the analysis and social use of data.
- Data analysis technologies used in the project will allow the activation of user communities, who will thus be able to improve their knowledge and participate more effectively in political decisions.

Training

- “Territori Aperti” works in the training of local authorities’ staff for the good management of emergencies and the planning processes of territories exposed to the risk of natural disasters or characterized by other forms of socio-economic fragility:
- Two main actions:
 - Master course in post-disaster technical-administrative management for local authorities
 - A Toolkit comparing good and bad practices in disaster prevention, management and reconstruction

Research: an international network of skills on the sustainable development of territories hit by natural disasters

- Ethical and legal aspects of data processing
- New technologies for data collection, preparation and analysis
- Advanced data visualization techniques
- Theoretical models and empirical analyses
 - Economic and social issues
 - Spatial planning issues
 - Health issues

High-Performance Computing for Disaster Resilience (HPC4DR): Strategic Framework

- The European Digital Strategy
 - High Performance Computing: EuroHPC Joint Undertaking
 - European Data Strategy: the Power of Data
 - Destination Earth: a digital 'twin' of the Earth to better understand its health, natural disasters and climate change
- The Sendai Framework for Disaster Risk Reduction
- The UN Sustainable Development Goals
- The European Green Deal
- Next Generation EU

Project Architecture

- **Resources**

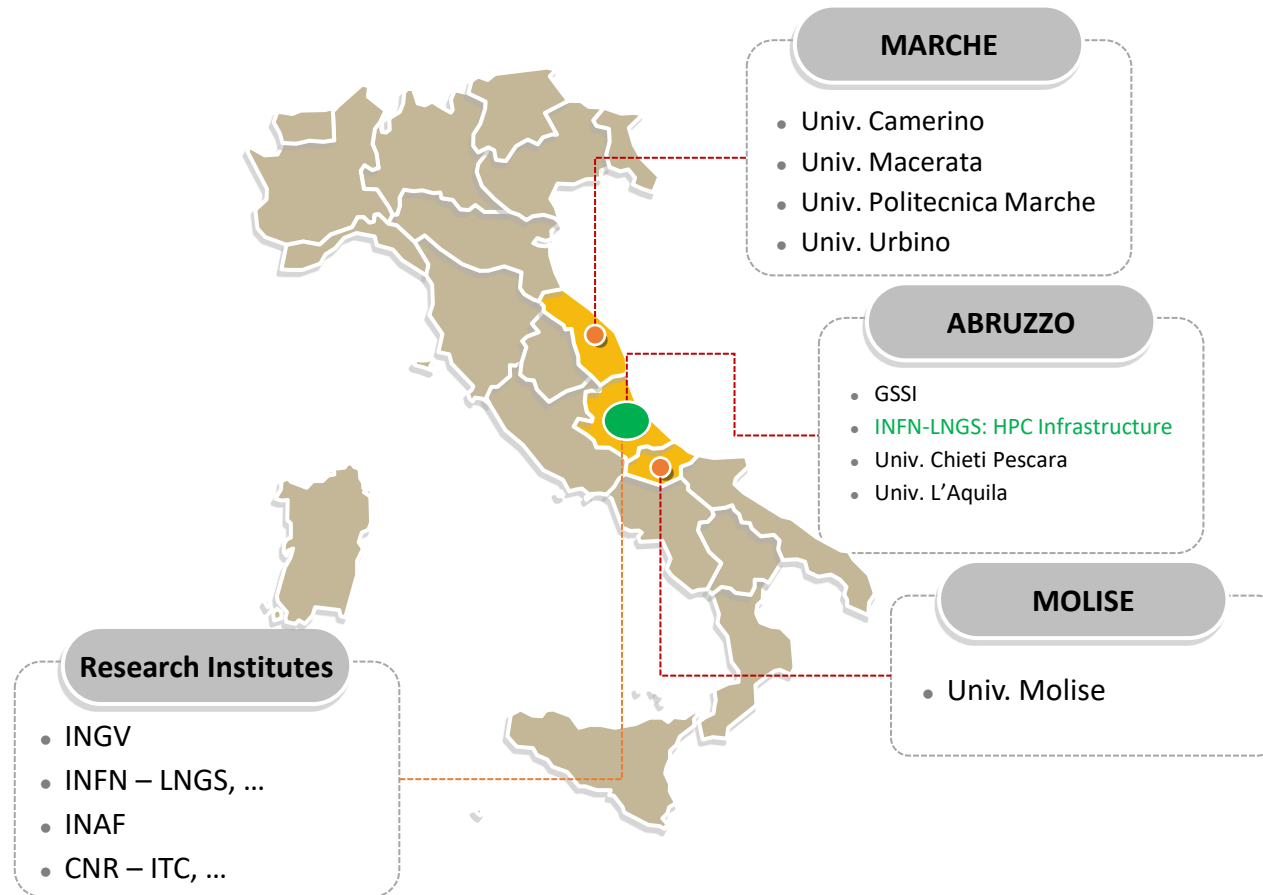
- HPC4DR infrastructure, connected to the CINECA *Leonardo* hub in Bologna
- Big data made available by the digital transformation
- Human resources with specific HPC skills

- A **value chain** organized in four stages based on the Sendai Framework principles:

1. Hazard and probability of natural and anthropogenic disasters
2. Vulnerability and exposure to the impact of disasters
3. Preparedness and resilience to disasters
4. Reconstruction and sustainable development in areas hit by disasters

- Each stage uses **HPC** resources **directly and indirectly** benefits from the better-quality inputs produced by the upstream stages of the supply chain through HPC
- The ultimate goal is to increase the **resilience of local systems to natural and anthropogenic disasters**, providing citizens, businesses and public institutions with reliable scenarios and simulations

HPC4DR PARTNERSHIP



Concluding remarks: the University of L'Aquila as a «civic university»

- The role of «civic universities» in the social diffusion of knowledge
 - Beyond the paradigm of a «third mission» based on (unilateral) technology transfer
 - Knowledge co-creation and reciprocal learning among universities, public institutions, social organizations and the business community
- The contribution of «civic universities» to the attainment of Sustainable Development Goals
 - Social and environmental justice: contrasting inequalities across individuals, territories and generations
 - International openness:
 - Connecting local systems to global networks of knowledge diffusion
 - Contrasting identitarian obsessions and promoting the ethical, economic and social value of globalization
 - Promoting international cooperation, peace and strong democratic institutions