

## ANNEX A

A *Triple transition* (ecological, social and digital) society presents new challenges to our contemporary world, particularly for the social and economic implications of these changes. The challenges pertain questions of equality, diversity and inclusion for the development and sustainability of complex global and hypertechnological societies. Identifying and addressing these rapid and radical transformations both at the institutional and at the personal and community level require an in-depth multidisciplinary training integrating different scientific domains through an inter-, trans- as well as multidisciplinary approach.

The Human Sciences for Innovation, Inclusion and Sustainability Ph.D. program aims to train scholars capable of analysing, interpreting and managing social, ecological and digital transitions, assessing their consequences in their multifaceted manifestations of marginalization and diversity issues —particularly in crisis situations— with the goal of elaborating specific responses and planning innovative practices. A rigorous theoretical-methodological as well as practical training can provide interpretative frameworks and tools to comprehend the complexity of the changes impacting the contemporary world, especially at the systemic and subjective level.

The Human Sciences for Innovation, Inclusion and Sustainability Ph.D. program aims to train highly qualified professionals that can liaise between the academic world on one hand and the cultural and industrial sectors on the other one, making them agents of change in line with the 2030 sustainable development agenda.

Among the pillars of the Horizon Europe 2021-2027 program for research and innovation the research paths structuring the Ph.D. program privilege Pillar 1-Excellent Science and Pillar 2-Global challenges and European industrial competitiveness.

The two curricula, “Human and Social Sciences, Media and Performance Studies” and “Organisation Sciences” share a theoretical-methodological common ground providing professionals with the apt strategic competences to research and analyse the socio-economic dimensions of current transformations, and to evaluate and regulate their effects.

The “Human and Social Sciences, Media and Performance Studies” curriculum privileges the competences necessary to identify, manage, and intervene in the social and cultural consequences of the current transitions.

The “Organisational Sciences” curriculum privileges the administrative competences of the triple (social, digital and ecological) transition in its impact on social, political and economic organisations, combining a historical and juridical perspective with a training in statistics to analyse the quantitative level these phenomena.

Common to both curricula is a methodological foundation providing both in-depth analytical tools and the mastery of available research and planning tools. A multidisciplinary and mixed methods approach intends to integrate in the curriculum innovative technologies and techniques to gather and analyse data with traditional tools and techniques deriving from qualitative, quantitative and experimental research, such as surveys, interviews, focus groups, random-control trials, standardised measurements, analysis of historical sources and legislation, statistical analysis, big data, visual methods, machine learning, psychological research. At the same time, the training will specifically address the techniques of scientific and academic writing, the ethical component in research, innovative modalities of communicating research results in different contexts (scientific, corporate, political, cultural, etc.), as well as forms of disseminating and transferring the acquired competences. In order to internationalise the training and the dissemination of the research results the English-language Ph.D. program includes, starting preferably with the second year, a research stay abroad of at least 6 months. It promotes agreements with foreign institutions to enable co-tutorship by foreign scholars who shall also be present as visiting professors throughout the lessons and seminars of the Ph.D program.

## OBJECTIVES

The Human Sciences for Innovation, Inclusion and Sustainability Ph.D. program aims to provide students with the scientific and methodological tools to conduct innovative basic and field research, in the academic, corporate, public and private contexts. The highly qualifying program prepares for both the academic careers and the new professions to manage the complexity of the transition in the many sectors affected by it.

Among the knowledges and competences imparted are:

- Interdisciplinary competences meant to comprehend and interpret the complexity of the current transitions, as well as to study their dynamics and possible developments;
- Critical analysis of the current transitions and the institutional and non-institutional forms of discipline, so as to align a full development of the ecological, digital and social transitions with sustainability and inclusive goals;
- Capability to envision, plan and implement change both at the macro and at the micro level to support the ecological, social and digital transition;
- Transdisciplinary theoretical-methodological competences to research and analyse transitions, to manage their social, economic, cultural, institutional and organisational impacts;
- Capability to envision, conduct and evaluate field research;
- Capability to communicate and disseminate research results at national and international conferences, winter and summer schools, through proposed publications and outreach initiatives;
- Capability to plan actions aiming to innovate, improve and accompany the changes induced by the triple transition;
- Writing, research, critical analysis and problem solving skills;
- Soft skills related to the ecological, technological and digital transitions, the forms of regulations, the empowerment of individuals, organisations and communities.

## CURRICULA AND RESEARCH LINES

### **“Human and Social Sciences, Media and Performance Studies” Curriculum**

The curriculum aims to provide graduate students with competences to manage the impact of the triple transition on education, media, and the arts, through a sociological, psychological and pedagogical perspective. The curriculum is articulated in three research areas:

#### **Area 1. Diversity, Inclusion and Participation across Generations**

This research path addresses the social and cultural consequences of the triple transition, in terms of participation, inclusion and diversity management in the national and supranational context. An interdisciplinary, in-depth perspective shall privilege an intersectional approach, in relation to the genders-generations nexus, particularly in

reference to the impact of new technologies. Special attention shall be given to the processes of influence and representation in the media through contemporary forms of communication (social, political and cultural), with a focus on the social construction of reality through the media and the discursive media practices shaping processes and events, in terms of content, structuring rhetoric and inner dynamics. Against this backdrop shall the study of artificial Intelligence and new languages be articulated, as well as the social, cultural and political consequences of Language Models (LM). This approach shall include studies on sports and fitness, the correlation between sports and general health in recreational sport activity, active aging, and the culture of well-being addressing disabilities. Further topics of research are the representation of sports and physical activity, the transformations induced by digital media, e-sports, sports and inclusion. At the same time, the organisational and economic dimensions will be considered in relation to the processes affecting and transforming sports, but also in reference to institutions and the culture industries, international relations and integration processes, as well as nation-building and supranational formations and deconstruction processes. New inequalities and processes of inclusion represent another field of research, privileging intersectional approaches factoring gender, sexual orientation, ethnic, religious, class, disability, and generational identities. The aim is to comprehend new forms of conflict and of social hierarchisation, at the local and global levels, in order to promote new interpretative frameworks on economic, socio-cultural and educational rights, as well as on forms of participation, national, supranational and transnational identity formations. Understanding the social effects of the triple transition (social, digital and ecological) will provide insights into trends and vertical sectors such as health-care and telemedicine, the impact of telemedicine and new technologies—particularly AI—on the inclusion opportunities and the exclusion risks, the related ethical implications, but also those relating to security, in the narrations, rhetorical and medial discursive practices underpinning the representation of diversity.

## **Area 2. Pedagogy, Education Technologies and Psychology at a Time of Transition.**

This research path is centered on the acquisition by graduate students of an articulated framework detailing the necessary competences intrinsic to the techniques and methodologies of empirical research both at the many levels of the traditional education sector and in reference to emerging modalities of instruction, privileging the emerging scenarios of new technologies and the questions of knowledge management. The range of educational models, their evolution and the convergence between theory and research, as

well as the various applications in different educational contexts (school levels and various corporate sectors) are all topics of research. The production and testing of technological environments and tools for web-based interaction and their impact on relationships and identity dynamics shall intersect with the theoretical-empirical research interests listed above and the study of semiotic models and conceptual artefacts enabling to interact with/ between media. Special attention shall be given to the analysis and the implementation of tools to manage information and the organisation of knowledge, to educational technologies and the modeling of educational devices, considering also the innovations and evolutions introduced by artificial intelligence and its ethical implications. Area 2 will entail pursuing on one hand theoretical goals (understanding the impact of digital, ecological and social transitions on the psychological, social and educational development, with a special focus on sustainability, resilience, adaptability and mental well-being), on the other one operational ones (developing educational models and innovative psychological, pedagogical and didactic schemes fulfilling the needs of different groups), and also methodological ones (adopting a multidisciplinary and mixed-methods approach integrating innovative techniques and technologies of data gathering with more traditional tools and techniques, such as surveys, interviews, focus groups).

### **Area 3. Communication, Arts and Digital Cultures**

This research path revolves around an in-depth study of the impact of digital innovations on communication processes, as well as on performative and audiovisual aesthetics and practices. Graduate students shall examine the broadest implications of generative and non-generative artificial intelligence, human-computer interaction (HCI) in reference to the conceptualisation and use of digital media and communications, the possibilities offered by metaverse to create immersive experiences capable of integrating the real and the virtual, the evolutions of the wide array of social media, the inclusion opportunities enabled by digital services in terms of accessibility, sustainability and active citizenship, security issues and issues relating to the proper modality of processing and analysing digital communication (for instance cybercrime and fake news). The impact of digital technologies and cultures on audiovisual media and the performative arts shall be examined within experiential environments enabling the interaction between performer and machine in multimedial spectacles, as well as in technologies employing sensors, virtual reality, augmented reality and artificial intelligence to create immersive and interactive

experiences, exploring also the generation of multimedia content by means of algorithms and artificial intelligence, and immersive and experiential architectures; furthermore, new audiovisual formats and languages shall be topics of research, as well as the distribution and consumption of audiovisual content through streaming platforms—taking into account recommendations and personalisation systems—, and also interface design, editorial and curatorial strategies in art catalogues. Of equal interest for scholarly enquiry are cultural policies supporting access to the audiovisual and performative cultural heritage, specifically digital archives and catalogues, cultural policies and technological tools meant for accessibility and inclusion, media literacy and education.

## ERC AREAS

SH1 Social Sciences and Humanities. Individuals, institutions and markets: economics, finance and managements

SH2 Institutions, Governance and Legal Systems Political science, international relations, law

SH3 The Social World and Its Interactions Sociology, social psychology, education sciences, communication studies

SH4\_1 Cognitive basis of human development and education, developmental disorders; comparative cognition

SH4\_2 Personality and social cognition; emotion

SH4\_5 Attention, perception, action, consciousness

SH4\_7 Reasoning, decision-making; intelligence

SH4\_8 Language learning and processing (first and second languages)

SH8\_8 Visual and performing arts, film, design

SH7\_4 Social aspects of health, ageing and society

PE6 Computer Science and Informatics: informatics and information system, computer science. scientific computing, intelligent systems

LS7 Prevention, Diagnosis and Treatment of Human Diseases

## **“Organization Science” Curriculum**

The curriculum aims to provide graduate students with the necessary competences to manage the triple transition (social, digital and ecological) and its impact on juridical, economic and political organisations and institutions, also through a historical, mathematical and statistical perspective. The curriculum is articulated in three areas:

### **Area 1 Multilevel Regulation of the Climate and Digital Transitions in Response to New Economic and Social Challenges**

This research path intends to investigate through the lens of critical thinking the various challenges contemporary reality poses to the legislative, the regulation and control authorities, privileging a multilevel perspective: on the vertical axis, in order to examine the national legislative sources, as well as the local and supranational (specifically European) ones; on the horizontal axis, in order to understand practices, models, and guidelines emanating from agents differently involved in disciplining, regulating and controlling the phenomena object of study. It shall combine a *hard law* perspective with the ever more widespread and fitting *soft law* one. The digital transition, as well as climate change, and, more in general, the related economic and social phenomena prompt a reflection on the content as well as the modes of legislating: the speed of these transformations, profoundly impacting the rights of individuals, workers and social agents demand, on one hand, a prompt intervention; on the other one, a juridical reflection that can connect different disciplines. This research path addresses interlinked dimensions: the public and the private one, the procedural and the substantial one. The research agenda stems from an awareness of the contemporary complexity of law-making confronting different realities: this enables graduate students to productively distance themselves from the specialized area of provenance, by means of a methodology that values, together with a rigorous analysis, a necessary openness to interdisciplinary exchanges in a constantly shifting scenario.

### **Area 2 Sustainable Innovation in Economics and Management (SIEM)**

This research path takes into account the challenges that sustainability faces in business, the economy and the financial markets, as well as, from the consumer's perspective, the relation between products/services and sustainable processes. More specifically, a sustainable organisation shall reach three goals simultaneously: contribute to the growth of

corporate profit, to the well-being of people, collectivities and the planet guided by a sustainable logic. Such an approach entails a shift based on technological and technical competences aiming to optimise the environmental impact of the production processes and the resulting products/services through a life cycle assessment, not focusing solely on the corporate but also the environmental and social impact in a circular rather than linear trajectory. Sustainable management must adopt a social perspective: the corporation is no longer an isolated “monad”, a production unit *per se* but an entity integrated in and in dialogue with the territory. When applied to the inner workings of organisations this means having to rethink the models of labor managing to facilitate flexibility, a balanced organisation of life and work time, and the organisation’s well-being, as well as to balance the corporate objectives with various stake-holders and market expectations, but also having to rethink the employee journey, i.e. their whole life-cycle, from when initially hired to their time of retirement, benefiting from the immense opportunities provided by digital new technologies. The proposed reserach area examines in depth models, measuremens and tools for the sustainability of organisations: enterprise social liability, impacts on brand equity, family businesses and human entrepreneurship, hybrid models in management and labor practices, also by means of artifical intelligence; corporate and social well-being, business models with tools to manage circular production chains; quantitative and statistical methods applied to corporate and financial markets with the goal of sustainability; accountability, fintech and sustainable finance; promotion and implementation of sustainable safety standars on the workplace; stake-holder engagement/empowerment models, coproduction of services.

### **Area 3 The Challenges of the Triple Transition at the Institutional, Political and Gender Level**

This reserach path focuses on the impact of digital and ecological transitions on national and supernational insitutions, with a special attention dedicated to ethical and political issues inherent to the governance of these transitions. We will stress the need to reform the system of multilevel governance in Europe and the rest of the world, the related debate relating to the challenges posed by the climate crisis and the digital revolution underway, governance of technological and digital innovation, and the global governance of climate change. Additional focus shall be directed to the presence and the role of women in representative bodies, in decision-making at several levels and throughout the cycles of



public policies by national and supernational institutions. Gender questions shall be examined in relation to women participation, involvement and leadership in the fields outlined above. Further topics of reserach shall be the impact of technological and climate change on a redrawing of the external relations of multilevel organisation and the main continental agents from a geopolitical, qualitative and institutional perspective. Specifically, the interactions between big powers, regional organisations and private agents (multinational corporations, media empires, etc.) shall be topics of research, as well as growth policies by regional and global entities. Furthermore, the social impact of the triple transition shall be examined in relation to the participation/discrimination of particular groups such as the younger generations, women, migrants and undeprileged groups in society to trace their changing status within a political-economic framework, in reference to inclusion, participation, diversity and sutainability issues.

## ERC AREAS

SH1 Individuals, Markets and Organizations: Economics, finance and management;

PE1 Mathematics: All areas of mathematics, pure and applied, plus mathematical foundations of computer science, mathematical physics and statistics.

SH2\_4 Legal studies, comparative law, law and economics

SH2\_5 Constitutions, human rights, international law

SH2\_6 International relations, global and transnational governance

SH2\_8 Political and legal philosophy

SH2\_9 Digital approaches to political science and law

## CAREER AND PROFESSIONAL OPPORTUNITIES

Ph.Ds in Human Sciences for Innovation, Inclusion and Sustainability shall be able to navigate various contexts (cultural, social and corporate) within public, private and tertiary sector entities, both in Italy and abroad. The combination of the two curricula shall enable graduate students to build the most fitting professional path to respon to their personal inclinations and ambitions choosing between:

1. *Intellectual professions* in scientific research, at universities, national and international research centres, libraries and archives, private and/or public institutions of the

audiovisual and performative sector, in private companies, consortia, production cycles and scientific parks.

2. *Managerial and CEO roles* in local, national, international and superntional institutions; in non-governmental national and international organisations, in the humanitarian or cultural fields, in private and public enterprises.
3. *Consulting and managing roles* in diversified and interconnected sectors such as sports, health-care, training institutions, technological transfer intitutions, the culture industry, to promote sustainable growth and the climate and digital transitions; financial consulting and its ethical implications; organisational and managing consulting.
4. *Managerial and coordination profiles* in the ecologic and digital transition: consulting for private and public institutions to plan, implement and apply digital technologies and services, arts management, media industries (cinema and television) and live performance.
5. *Juridical profiles* ranging from digitalisation and sustainable growth, cybersecurity, implications related to the use of AI, human health and environmental safety, the European Green Deal.

## CONSISTENCY WITH PNRR OBJECTIVES

The Ph.D. program intercepts three European-wide strategic goals: innovation and digitalisation, ecologic transition and social inclusion. The cultural and scientific vision behind the doctorate in Human Sciences for Innovation, Inclusion and Sustainability aims to train qualified professionals who can respond to the technological, social and environmental challenges at the core of the European and national planning strategies for the years to come. For this reason, a multidisciplinary perspective applied to base research is preferred, resulting in building planning, management, communication and leadership competences to shape inclusive, sustainable and human-centered research, innovation and growth processes. With these premises the degree takes as stepping stones the following Misions identified by the PNRR:

Misison 1: digitalisation, innovation, competitiveness, culture and tourism

Mission 2: Green revolutions and ecologic transition

Misison 3: Reserach and Education