

X Labs

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Master of Science in Law, Digital Innovation and Sustainability (LDIS)

LDIS aims to forge a **new figure of innovator**, capable of creating innovative solutions which involve different ecosystem actors and that can lead the development of European projects, start-ups or ecosystem innovation mechanisms.

The LDIS international students - having a managerial or legal background - are equipped with the necessary tools to interpret the current digital and ecological transitions in society and economy, thus acquiring a strong **ability to use and design innovative legal framework** with an equally strong **interdisciplinary, managerial and technical knowledge** based on the social and hard sciences.

Its **open, ethical and collaborative methodology** is continuously tested through different *artefacts*, including *legal hacks*: solutions based on the deep comprehension of the legal frame regulating an innovation and supported by data, and on the identification of the best way to facilitate its realization or systemisation.

ENQUIRY BASED APPROACH

In the two years of the course, students put their acquired knowledge into practice by experimenting with concrete applications in **different laboratories**:

R&I Lab

Students design **responsible research and innovation projects that respond to the Horizon Europe call for proposals**. They work in small teams (4-5 members), using collaborative tools. Their proposals are defined in confronting with the teachers of the core courses who act as catalysts for the topics of their own competence. They also conduct interviews with external experts and potential partners and collaborate with PhD to explore in depth scientific aspects. The results of the pathway are presented in a plenary session where the teams answer questions from expert audience.

Six sessions in the first semester of the first year

X-labs

The X-Labs support students to work with the partners and expose them to the ordinary work environment dynamics and social norms, retro-engineering the "training on the job" model into "job on the training". Students work in team with the mentors to **create mission-oriented solutions**. Teams are larger (7-9 participants) and the number of activities to be done in parallel is greater and more rhythmic: they explore future scenarios, plan transformative visions, collect data, carry out in-depth research, conduct interviews, gather feedback to co-design and refine projects / services / new business models. In dialogue with the entire xLab ecosystem they carry out the assigned tasks, completing the activities set during the sessions. At the end of the course they present to a selected panel of experts their solutions, which can find further development as pilots in companies or as a team project to create a startup finding further support for the implementation in the Z-labs.

Eight sessions in the second semester of the first year, every Thursday evening, from March 3rd to April 28th- Final presentation t.b.d.

Negotiation Labs

Students analyze the origin of conflicts and understand how to manage them, developing their negotiation skills to "create value" (win-win negotiation)

Second semester of the second year

Z-labs

Students become protagonists of the transformation, their own **impact project or start-up** creating with the support of mentors and experts. Some zLab projects can be involved in X-labs, also with the aim of stimulating open innovation processes.

Final project work: empirical and experimental thesis, second semester of the second year

X-labs_ aims and structure

X-labs is an original format developed for the M Sc Law, Digital Innovation and Sustainability (LDIS) at Guido Carli LUISS University. The X-labs path was tested for the first time last year. In this second edition it is articulated in 8 weekly in presence sessions, scheduled in March and April, which aim to develop innovative system-oriented solutions in response to six thematic challenges set by the partners.

The solutions will be developed with the aim of being ready to be implemented in real conditions, as **new action pilots within partner companies or as future start-ups**, to generate positive impacts for the communities and territories in which they will be realized. It will also be possible for students working on their zLab thesis project to be engaged in an **open innovation perspective**.

Each team will be supported by a **strategy mentor** who will guide it in the choices and will help to achieve this objectives.

Each team can also count throughout the course on one or more **technical mentors**, who will bring experience and vertical expertise on sectors and methodologies. A **toolkit** will be shared with them to ensure a common framework for the process. The experimentation is always open to the transformations in response to changes in the external context, to the partners involved and to the specificities of the students. It is based on the knowledge sharing and, in order to encourage exchange between the figures involved, there will be a space for the mentors to contribute to the framework by refining the tools or proposing new ones.

Two checkpoints are set up to present the results of the work in plenary, to stimulate exchange between teams *for more details see slide 8: route description*).

Territories and actors of the innovation ecosystems are identified to be involved as **test bed**. They will be selected with the partner companies looking at the portfolio of projects that Luiss and [LabGov](#) (as students NGO) are carrying out (*for more details see slide 6: test bed portfolio*). The experience of Luiss, BILL and Labgov projects will also be brought by the phd students who are following their implementation.

The **key stakeholders** will be involved, that represent the urban innovation ecosystem: public institutions, private sector, research centers, social and civic innovators. They will contribute either through interviews or by direct participation to co-design session. The X-labs partners have the chance to suggest additional contexts or ecosystem actors.

This edition will also see the special contribution of tutors and students from the European universities involved in the **Engage project**. They will take part online to the sessions and contribute using the collaborative online tools. This contribution will increase the internationality of the course and help to strengthen the scalability and replicability of the designed solutions.

The course will conclude with a **final pitch session** for a panel of experts. In addition, the projects will benefit from the prestigious showcase of a dedicated session of the 16th edition of the *Best Practices for Innovation Award* (which this year will be dedicated to green tech, digitalisation and the internet of things).

X- labs_route description

Session inputs ...

All sessions will be **face-to-face** and will include some **plenary activities** (e.g. agenda sharing and presentation of work done by teams for feedback) and **parallel team activities**.

The sessions will be hosted in the **classrooms of the Luiss University** or in the **spaces of the House of Emerging Technologies** (Tiburtina area).

The activities introduced during the sessions will be deepened by the student teams during the week, starting with a specific **assignment of tasks to the different team members and a management by the tutor**.

The mentors will be available for any further development and alignment, in their office hour (online/offline). Collaborative tools will be used through online platforms (i.g. Mural and drive).

Thursday 3 March, 16:30 - 19:30

#1 ORIENTATE_

Futures exploration

Scanning the forces of change that may influence the evolution of the field of investigation, identifying a priority territory of application and constructing draft scenarios of alternative futures.

Thursday 17 March, 16:30 - 18:30

#3 SET THE VISION_

Value definition

Plenary presentation by teams of what has been explored and defined to gather feedback from all. Team work on defining the value proposition.

#1 check point

Thursday 31 March, 16:30 - 18:30

#5 CATALYZE_

Reality check

Construction of the minimum viable product: starting from the long-term objectives and the characteristics of the users and territories, the priority features are identified and the way to prototype and test it is defined.

Thursday 21 April, 16:30 - 18:30

#7 SYNERGIZE_

Prototyping the pitch

Construction of the pitch: elaboration of the narrative and design of the deck.

Team work during the week

stakeholders mapping, scenarios fine-tuning

key stakeholders and expert interviews, benchmarking

Market and users exploration

prototyping, testing and growing with ecosystem

pitch fine-tuning

final pitch Session
(t.b.d.)

Thursday 10 March, 16:30 - 18:30

#2 REFRAME_

Transition building

Defining the challenge starting from the elaboration of the vision to be pursued, the mapping of the current dynamics of the system, and the collection of strategic points that guide the transition.

Thursday 24 March, 16:30 - 18:30

#4 CREATE_

Modelling

Designing the business model, defining mechanisms for environmental sustainability and generation of economical and social value.

Thursday 7 April, 16:30 - 18:30

#6 CONTINUE THE JOURNEY_

MVP presentation

Plenary presentation of the MVPs, prototypes and test to be conducted. Collection of feedback and refinement of the metrics.

#2 check point

Thursday 28 April, 16:30 - 19:30

#8 IGNITE_

Pitch training

Team training for the final pitch session

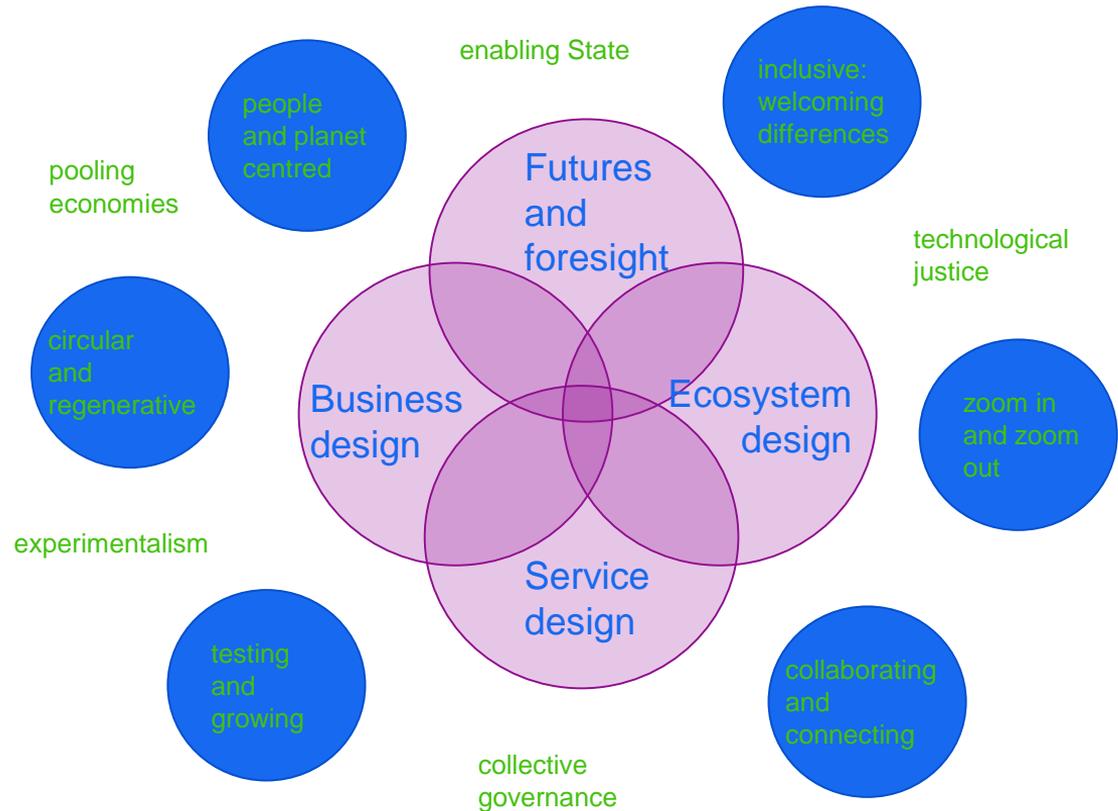
Session inputs

X-labs_methodology, approach and design principles

The six teams will work in parallel, adopting a common framework.

The framework used is guided by time-honoured principles, but is constantly evolving in terms of methods, approaches and tools.

Here you find the guiding principles from [Co-City Protocol](#) (green), the approaches adopted (blue balloon) and the methods used in this edition (purple balloon).



X-labs_transformative innovation demands

The X-labs are always guided by 6 challenges, oriented by **areas identified as priorities for innovation**.

Each challenge is set by a leading company (*challenge owner*) that identifies a **transformative innovation demand** in dialogue with the LDIS team, here in its first formulation.

The transformative innovation demands are the first input of the route (*#1orientation* and *#2reframe*), and feed the first two steps to the **definition of the challenge**.



The future of transportation

How to implement new forms of mobility, or strengthen the existing ones, to improve sustainability and generate new economy?

Challenge owner
[Ernst&Young](#)



The future of energy, telcos & networks

How to infrastructure and support the growth of energy communities, beyond the energy production?

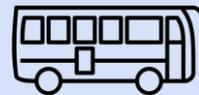
Challenge owners
[EnelX](#) and [Grinn.City](#)



The future of industry and manufacturing

How to make hydrogen truly sustainable and strategic for the transition?

Challenge owner
[Technip Energies](#)



The future of cities and regions

How to transform city buses in a strategic resource for the environment and communities?

Challenge owner
[RATPDev](#)



The future of wellbeing

How to activate communities and stimulate wellbeing at neighbourhood level?

Challenge owner
[NTT data](#)



The future of Earth

How can the Mediterranean countries and cities respond to the climate emergency and its consequences?

Challenge owners
[BIP](#) and [Sketchin](#)

X-labs_testbeds

To ensure that imagined solutions are designed from the outset in dialogue with the needs and opportunities offered by real contexts, it is necessary to choose a test bed. **Here are some projects selected from the Luiss and LabGov portfolio with which synergies can be created.**

OPEN HERITAGE

It is a urban cultural district located in **Southeast Rome**. It includes the **Alessandrino, Centocelle and Torre Spaccata (ACT)** neighbourhoods. A number of archeological sites with remains from Roman, Medieval and Post-industrial times, but for years now they have been underexplored or abandoned. The ACT Collaboratory mission is to regenerate the area, contributing to make the community aware of the great potential of their territory. Citizens and civic entrepreneurs are engaged to increase the wellbeing of the district inhabitants, conceiving cultural heritage as a driver for the socio-economic and sustainable development of the area.

TOWARDS SAVIO 2030

In 2019, the Union of **Municipalities of the Savio Valley, in Emilia Romagna**, started the co-design path "Towards Savio 2030" to build a strategic programme aimed at fostering collaboration and synergies between institutions, cognitive sector, companies, social and civic actors through the development of a kit of policies and legal tools, with the intention of enhancing the territory of the Valley, through social, digital, technological innovation and empowerment of local communities, in line with the euro-unitary public policy guidelines.

ENERCOMM

Prototyping a local energy community together with ENEA. The activity concerns the support in the involvement of the pilot energy communities in the experimentation of the co-designed community services in order to validate the developed methodology and models enabling aggregated services for citizens based on blockchain and methodologies, for the remuneration of flexibility and other community services through the use of local virtual currencies and in the study of the applicative possibilities of smart contracts. In addition, Luiss is engaged in validating the results that emerged from the pre-feasibility study.

CO-SCIENCE

The project aims at studying, analysing and creating governance models for digital platforms for multi-, inter- and trans-disciplinary sharing of scientific and collective knowledge among different social actors. Through the use of new technologies, first and foremost blockchain and privacy-by-design architectures, the project aims to foster the creation and dissemination of scientific knowledge and support the sharing of the value generated by it. In this context, the digital platform enable the sharing of knowledge and its fruits, guaranteeing the protection of the rights of those who participate in the creation of scientific value and the interest of the community in benefiting from knowledge.

CITY SCIENCE OFFICE

The CSO is part of the scientific collaboration between the Municipality of **Reggio Emilia**, the Managing Authority of the Open Laboratory and Guido Carli (LUISS). It formalises Reggio Emilia's participation to the network of European cities joining the City Science Initiative, launched in 2019 by the Joint Research Centre (JRC) programme of the European Commission with the aim of strengthening the ways in which science and research can contribute to addressing urban challenges, reducing or bridging the gap between science and policy. This network includes highly innovative cities such as Amsterdam, Paris, Thessaloniki, Hamburg, Barcelona

FOODBLOCK DAUNIA

The **Monti Dauni** inland area (Puglia) is in the process of defining its own strategy and, above all, a supply chain/agro-food district contract that would allow the municipalities in the area to have a strategic planning tool for the main resource for the development of the Monti Dauni municipalities. This element could lead to an integrated territorial planning centred on sustainable development and technological innovation to enhance local identities. One of the most critical aspects highlighted by the strategy is precisely the lack of innovation, not only in terms of digitalisation, but also of sustainable innovation in agricultural production.

**Partners have the possibility to propose further contexts of involvement.*

X-labs_ecosystem

It takes a village: key functions of X-labs ecosystem in driving innovation

STUDENTS

INTERNAL TUTORS

Who they are

Outstanding students scholarship holder

What they do

act as contact persons
coordinate the team's work
manage tasks implementation

TEAM MEMBERS

Who they are

First year LDIS students

What they do

design with mentors during the sessions
develop work independently during the week
present and refine it

ENGAGE PARTICIPANTS

Who they are

Students from the universities involved in the European Engage project

What they do

contribute online to activities, adding their knowledge

MENTORS

TECHNICAL MENTORS

Who they are

Professionals with vertical sector and/or design experience

What they do

support their team by attending all sessions in person and guiding the use of the tools
respond to students' doubts and needs in a one-hour office session per week
can contribute to the development of tools

STRATEGIC MENTORS

Who they are

Professionals with vertical sector and/or design experience

What they do

guide the project so that it can be developed into a real business with great growth potential

ENGAGE TRAINERS

Who they are

Professors from the universities involved in the European Engage project

What they do

contribute online to activities, adding their knowledge, with respect to content and tools
help to strengthen the scalability and replicability of the designed solutions

STAKEHOLDERS & EXPERTS

KEY STAKEHOLDERS

Who they are

Actors of the urban innovation ecosystem

What they do

guide the response to reality by offering insights through interviews or participation in sessions

Z-lab TEAMS

Who they are

Second year LDIS students

What they do

participate in the course by bringing their own startup as an immediate space for application and experimentation
provide operational continuity even at the end of X-labs

FIELD EXPERTS

Who they are

LuiSS Phd students and LabGov team members

What they do

provide insights into the territories in the LUISS and LabGov test bed portfolio, as active experts in the projects

X-labs_main partners



X-labs_partners



Agenzia
Spaziale
Italiana



BANCOMAT SpA

BlackRock



CooperACTiva
Cooperativa di quartiere

ENEA

Agenzia nazionale per le nuove tecnologie,
l'energia e lo sviluppo economico sostenibile



GEDI
GRUPPO EDITORIALE

grinn.city
growing sustainable INNOVATION



**Maire
Tecnimont**

Qualcomm

TRENORD



**SPORT
E SALUTE**