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ВЕРБАЛЬНАЯ НОТА

Посольство Италии в Кыргызской Республике свидетельствует свое уважение Министерству иностранных дел Кыргызской Республики и имеет честь направить в приложении проектный документ «**BRIDGE – Building Resilient Institutional Dialogue for Governance and Education**» («Построение устойчивого институционального диалога в сфере управления и образования»).

Инициатива, посвящённая продвинутой подготовке кадров и укреплению институционального потенциала, направлена на консолидацию долгосрочного сотрудничества между Италией и странами Центральной Азии, выступая в качестве конкретного и практического продолжения Диалога 5+1 и Астанинского саммита от 30 мая 2025 года.

Проект BRIDGE был разработан на основе консультаций, состоявшихся в странах Центральной Азии в ходе недавних итальянских миссий, и учитывает предложения, сформулированные в отношении проекта плана действий, который в настоящее время находится на стадии обсуждения. Он направлен на укрепление технических и управленческих компетенций государственных служащих и представителей делового сообщества, способствуя формированию транснационального сообщества экспертов, способных эффективно работать в условиях многоуровневого управления.

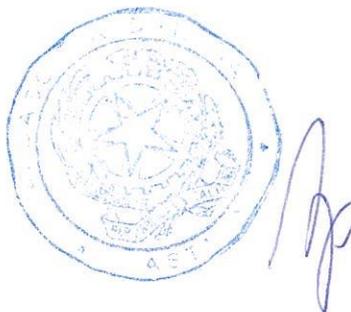
Путём привлечения академического сообщества, государственных институтов и частного сектора проект нацелен на продвижение тиражируемых инструментов государственной политики, укрепляя «Сети знаний Италия–Центральная Азия» и используя образование как катализатор взаимного доверия и совместного развития. Инициативу следует рассматривать как первый этап структурированной программы, которая будет продолжена в последующие годы и может быть дополнительно усовершенствована по итогам этапа реализации.

В целях обеспечения полной операционности проекта Посольство подчёркивает целесообразность оперативного начала **процедуры отбора участников Школ политики (SoP)**. В этой связи обращается внимание на следующие ключевые аспекты:

- **Языковые требования:** курсы будут проводиться исключительно на английском языке; в целях обеспечения максимальной ясности и во избежание разночтений в приложении направляется техническая документация на том же языке.
- **Критерии отбора:** рекомендуется, в приоритетном порядке, отбирать кандидатов из числа слушателей **Академий государственного управления** в соответствии с выраженной заинтересованностью данных учреждений, проявленной в ходе институциональных встреч, состоявшихся прошлой осенью.

Посольство Италии пользуется случаем, чтобы возобновить Министерству иностранных дел Кыргызской Республики уверения в своем весьма высоком уважении.

Министерство Иностранных дел
Республики Кыргызстан
БИШКЕК





Ca' Foscari
University
of Venice

Department of Asian
and North African Studies



Ministero degli Affari Esteri
e della Cooperazione Internazionale



ITALY-CENTRAL ASIA
KNOWLEDGE NETWORKS

BRIDGE

Building Resilient Institutional Dialogue for Governance and Education

*Strengthening Italy–Central Asia Cooperation
through Advanced Training and Shared Knowledge Networks*

Project Overview and Outline of the Schools of Policy

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EXECUTIVE SUMMARY

The **BRIDGE Project (Building Resilient Institutional Dialogue for Governance and Education)** is a flagship **advanced-training and capacity-building initiative** designed to strengthen long-term cooperation between Italy and the countries of Central Asia within the **Italy–Central Asia 5+1 framework**. Building on the political momentum generated by recent Ministerial Conferences and the 2025 Astana Summit, BRIDGE translates high-level diplomatic dialogue into structured, operational cooperation grounded in knowledge exchange, institutional capacity-building, and joint project development.

In line with the **Astana Summit’s call for enhanced knowledge networks** and coordinated responses to transnational challenges, BRIDGE consolidates earlier academic and institutional exchanges into a structured, scalable training programme. It **establishes a network of Schools of Policy (SoP)** that bring together public officials, technical experts, and selected private-sector actors from Central Asia and Italy. The project positions advanced training and higher education as strategic instruments to reinforce institutional dialogue, promote shared governance approaches, and foster sustainable development partnerships across priority sectors.

Consistently with intergovernmental agenda, **BRIDGE addresses shared priorities** such as water-health nexus, connectivity, sustainable agriculture, and energy transition, while strengthening the technical and managerial capacities required to design and implement effective policies.

BRIDGE project aims to:

- a) Strengthen **technical, institutional, and managerial capacities** of public officials and economic operators;
- b) Foster a **transnational community of policy professionals** capable of engaging in multi-level and multi-actor governance;
- c) Support **bottom-up consolidation of intergovernmental dialogue** through shared knowledge and best practices;
- d) Promote the co-creation of context-sensitive, replicable **policy tools and project proposals**;
- e) Expand and stabilize **Italy–Central Asia Knowledge Networks** involving academia, public institutions, international organizations, and the private sector;
- f) Use advanced training as a tool for **trust-building, institutional interoperability, and shared ownership** of development pathways.

The BRIDGE training is organized into three sequential and complementary modules:

1. **Common Online Training Module**

A foundational course for all participants, establishing a shared analytical framework on Italy–Central Asia relations, sustainable development challenges, nexus-based policymaking, and international cooperation instruments.

2. **Intensive Specialized Schools of Policy (in Italy)**

Four one-week, in-person Schools hosted by leading Italian universities, each focused on a priority sector:

- Water–Health Nexus (Venice, Ca’ Foscari University & Italian National Institute of Health)
- Connectivity and Infrastructure (Rome, Sapienza University & Italferr)
- Sustainable Agriculture (Bologna, University of Bologna & University of Tuscia)
- Renewable Energy and Green Transition (Milan, University of Milano-Bicocca)

3. **Best Practices Exchange and Joint Project Development (in Central Asia)**

A consolidation phase focused on transforming acquired competencies into concrete project proposals and policy initiatives. Through thematic workshops hosted in Central Asia, participants engage in peer exchange, comparative assessment, and collaborative project design aligned with national and regional priorities.

The programme is **coordinated by Ca' Foscari University of Venice**, with clear allocation of responsibilities among Italian academic partners and Central Asian institutions. The model is based on **shared ownership and cost-sharing**, ensuring sustainability and strong local engagement. Participation is balanced across countries and thematic areas, fostering regional dialogue and coherence.

By integrating education, policy dialogue, and project development, BRIDGE strengthens the **operational dimension of Italy–Central Asia cooperation**. It creates durable professional networks, enhances institutional capacities, and supports the emergence of bankable, implementable cooperation initiatives, thereby contributing to resilient governance, sustainable development, and long-term partnership between Italy and Central Asia.

PROJECT OVERVIEW: CONTEXT, OBJECTIVES, AND STRUCTURE

CONTEXT AND STRATEGIC RATIONALE

Over the past several years, **relations between Central Asia and Italy have undergone a marked deepening and expansion**, both at the bilateral level and within multilateral frameworks. In this process, Italy has progressively emerged as an effective interlocutor and a pivotal bridge between the European Union and the Central Asian republics, promoting a model of cooperation grounded in reciprocity, institutional dialogue, capacity-building, and long-term partnership.

A decisive impetus to this trajectory has been provided by the **Ministerial Conference in the “5+1”** format, inaugurated in 2019 and scheduled to reach its fourth edition in 2026, and especially by the first **Summit of Heads of State and Government held in Astana in May 2025**. The latter reaffirmed the shared commitment of the six participating countries to strengthen their partnership on the basis of common values, shared interests, and a multilateral vision centred on peace, sustainability, and innovation. Within this framework, Italy has consolidated a leading role at the European level in shaping engagement with Central Asia and in translating political dialogue into concrete cooperation agendas.

Crucially, this process has not been confined exclusively to the intergovernmental dimension. In line with the orientation expressed at the third Ministerial Conference (Rome, 2024), **emphasis has been placed on initiatives capable of broadening and entrenching the fabric of relations** between Italy and Central Asia by mobilizing academic institutions, economic actors, and technical expertise. In this context, higher education and advanced training have been identified as strategic instruments for ensuring continuity between high-level political meetings, supporting cooperation “from below”, and generating policy-relevant knowledge and skills.

FROM KNOWLEDGE NETWORKS TO BRIDGE

Building on these premises, in 2024–2025 Ca’ Foscari University of Venice, with the support of the Italian Ministry of Foreign Affairs and International Cooperation (MAECI), developed a project aimed at **creating and consolidating “Knowledge Networks” between Italy and Central Asia**. These networks were conceived as platforms for dialogue, exchange, and joint reflection among Italian and Central Asian centres of excellence in key sectors of intergovernmental cooperation: water and health, sustainable agriculture, connectivity, renewable energy, and higher education.

The activities carried out during this initial phase **received high-level political endorsement in the Final Declaration of the Astana Summit**, which explicitly welcomed the establishment of knowledge networks as an effective tool to address shared global challenges and called for intensified exchanges of expertise, best practices, and institutional training.¹ The Declaration further stressed the need for coordinated and multi-level responses to transnational challenges such as climate change, energy transition, water scarcity, food security, and connectivity, while encouraging the strengthening of technical and institutional capacities in both the public and private sectors.

The BRIDGE project (Building Resilient Institutional Dialogue for Governance and Education) represents the **natural continuation and operational consolidation of this trajectory**. It translates the strategic orientations emerging from the 1+5 process and the Astana Summit into a structured

¹ See points 22-24 of the Final Declaration, available at https://www.governo.it/sites/governo.it/files/JointDeclaration-20250530_0.pdf

programme of advanced training, designed to reinforce institutional dialogue, shared competencies, and long-term cooperation between Italy and the countries of Central Asia.

OBJECTIVES OF THE BRIDGE PROJECT

The overarching objective of BRIDGE is to set up Schools of Policy (SoP) aimed at strengthening institutional, analytical, and project-design capacities among Italian and Central Asian stakeholders. **Through the Schools of Policy, BRIDGE offers a coherent and forward-looking response to the strategic priorities articulated within the Central Asia-Italy 5+1 framework.** By combining foundational knowledge, thematic specialization, and best practices exchange, the project positions advanced training as a cornerstone of resilient institutional dialogue, sustainable governance, and long-term partnership between Italy and Central Asia.

More specifically, the project aims to:

- a) enhance the technical, institutional, and managerial skills of public officials and economic operators from Italy and Central Asia in areas of shared strategic interest;
- b) foster the emergence of a transnational community of professionals capable of engaging in cooperative, multi-level, and multi-actor governance processes;
- c) support the bottom-up consolidation of intergovernmental dialogue through the circulation of knowledge, experiences, and best practices;
- d) promote the co-creation of replicable and context-sensitive policy tools and project ideas, avoiding the mechanical reproduction of approaches adopted in the past;
- e) expand and stabilize the Knowledge Networks involving academic institutions, public bodies, international organizations, and private-sector actors active (and willing to be active) in Italy and Central Asia;
- f) through these objectives, BRIDGE conceives advanced training not merely as a transfer of expertise, but as a strategic instrument for trust-building, institutional interoperability, and shared ownership of development pathways.

THE THREEFOLD STRUCTURE OF THE TRAINING PATHWAY

The core of the BRIDGE project is represented by the SoP, an **advanced, modular, and multi-level training pathway addressed to public officials and representatives of the business sector** from Central Asia, with selective participation of relevant Italian counterparts. The SoP is structured around three sequential and mutually completing modules, each serving a distinct function within the overall shared logic of the project.

Module 1 – Common Online Training: Shared Frameworks and Tools

The first module consists of a common online training phase addressed to all participants, regardless of their thematic specialization. Its purpose is to establish a shared analytical and conceptual framework for Italy–Central Asia cooperation, clarify the interconnections among the four priority sectors (sustainability, water scarcity, food security, and connectivity), and provide transversal policy and project-design tools. This phase **ensures a common language and baseline of competencies**, which are essential for the effectiveness of subsequent, more specialized activities.

Delivered **through a digital learning platform** and combining synchronous and asynchronous activities, this module introduces participants to:

- a) the political and institutional context of Italy–Central Asia relations;
- b) global and regional governance frameworks, including the Agenda 2030 and the Sustainable Development Goals;
- c) integrated and nexus-based approaches to policy-making;
- d) key instruments and funding mechanisms for international and European cooperation.

Module 2 – Intensive Specialized Training: Thematic Schools of Policy

The second module consists of an **intensive, in-person training phase held in Italy and articulated around four thematic Schools of Policies**, each hosted by a leading Italian university in cooperation with institutional and relevant sectoral partners:

- 1) Water & Health, coordinated by Ca' Foscari University and the Istituto Superiore di Sanità;
- 2) Connectivity & Infrastructure, hosted by Sapienza University of Rome in cooperation with actors from the transport and logistics sectors;
- 3) Sustainable Agriculture, coordinated by the University of Padua and the University of Tuscia;
- 4) Renewable Energy & Green Transition, hosted by the University of Milano-Bicocca.

This module combines lectures, laboratories, simulations, case studies, institutional meetings, and study visits. Its objectives are to deepen sector-specific expertise, foster professional networking, and support the co-creation of concrete and replicable outputs, such as strategic plans, or pilot project proposals.

Module 3 – Best Practices Exchange and Joint Project Development

The third module constitutes the applied and consolidating phase of the BRIDGE training pathway. It is **designed to transform the competencies and analytical tools acquired in the previous modules into concrete proposals** for cooperation between Italian and Central Asian stakeholders.

The participants will develop and present project ideas and policy-oriented initiatives aligned with the programme's priority sectors. These proposals are discussed within a series of thematic in-person workshops held in Central Asia, fostering structured peer exchange, comparative assessment, and refinement of approaches.

By focusing on joint project development and implementation-oriented dialogue, Module 3 strengthens the operational impact of the SoP, consolidates the Knowledge Networks established in the earlier phases, and contributes to the identification of future shared priorities and sustainable cooperation trajectories between Italy and Central Asia.

This phase adopts a horizontal and participatory approach, valuing participants as co-producers of knowledge and focusing on:

- a) comparative discussion of national and sectoral experiences;
- b) collaborative development of small-scale projects and policy tools.

ORGANIZATIONAL RESPONSIBILITIES AND COST-SHARING ARRANGEMENTS

The organizational responsibilities and financial arrangements of the BRIDGE training pathway are defined in line with the modular structure of the programme, with the aim of ensuring clarity of roles, shared ownership, and a balanced distribution of responsibilities and financing among the partners involved.

Module 1 – Common Training (online)

The organization, academic coordination, and overall management of the Common Online Training Module will be **ensured by Ca' Foscari University of Venice**, which will also bear all the related operational and organizational costs, including those connected to teaching activities and the management of the digital learning platform.

Central Asian partner institutions are invited to identify and nominate participants to the full training pathway, selecting them among representatives of public administrations and state-owned enterprises, in line with the objectives and thematic priorities of the programme.

The number of participants is set at a **maximum of 16 per country**, ideally equally selected across the four priority areas of intergovernmental cooperation and of the BRIDGE project—namely water and health, connectivity, sustainable agriculture, and renewable energy—with a view to ensuring balanced participation and thematic coherence throughout the programme.

Module 2 – Thematic Schools of Policy (in-person in Italy)

The organization and implementation of the thematic Schools of Policies under Module 2 will be entrusted to the respective host universities, operating in close coordination within the overall project framework.

Within this module, the **host universities will ensure coverage of the travel and accommodation costs** of both the Italian participants involved in the SoP as well as the Central Asian participants who have been selected and formally indicated during the initial phase of the project. This arrangement is intended to facilitate full and effective participation in the intensive training activities and to ensure continuity between the online and in-person components of the programme.

Module 3 – Thematic Workshops (hybrid, in Central Asia)

Module 3 is **based on an equitable and cooperative cost-sharing approach**, reflecting its emphasis on inclusive partnership and local ownership. Each thematic workshop will be hosted by a relevant national institution in the Central Asian country concerned, in close cooperation and coordination with the corresponding Italian academic and institutional partners.

With regard to financial arrangements, **each participating country will cover the international travel costs of its own representatives** attending the workshops in person, without prejudice to the possibility of remote online participation. The **host country will ensure coverage of all local hospitality costs**, including accommodation and meals, for the full duration of the workshop.

This distribution of responsibilities is conceived to foster a spirit of shared commitment and sustainability, while supporting the long-term consolidation of institutional dialogue and cooperation between Italy and the Central Asian partner countries.

PROJECT TIMELINE

Activity	Month (from January 2026)								
	1	2	3	4	5	6	7	8	9
Sharing of the training programme and selection of Italian and Central Asian participants by the relevant national institutions (<i>mid-January – mid February 2026</i>).	X	X							
SoP – Module 1. Common Online Training: Shared Frameworks and Tools (<i>March-April 2026</i>)			X	X					
SoP – Module 2. Intensive Specialized Training: Thematic Schools of Policy (<i>in person, different locations in Italy, April-May 2026</i>)				X	X				
SoP – Module 3. Best Practices Exchange and Joint Project Development (<i>hybrid, different locations in Central Asia, September 2026</i>)									X

MODULE 1

COMMON ONLINE TRAINING MODULE

INTRODUCTION

The first module of the BRIDGE training programme is conceived as a **common foundational module** for all the participants enrolled in the four thematic SoP. Its objective is to provide a **shared framework of reference** that strengthens the effectiveness, coherence, and long-term sustainability of Italy–Central Asia cooperation, in line with the priorities articulated within the Central Asia-Italy 5+1 process.

As relations between Italy and the countries of Central Asia continue to deepen — both bilaterally and through structured multilateral dialogue — the capacity of public institutions and policy actors to operate on the basis of shared analytical frameworks, compatible governance approaches and common operational tools becomes increasingly important. In a context marked by diverse institutional settings and development trajectories, targeted capacity-building plays a crucial role in fostering mutual understanding, institutional interoperability, and coordinated policy action.

The overarching training module responds to this need by offering a cross-cutting learning pathway that precedes and underpins the four specialized SoPs. It is **conceived as a strategic enabling component of the overall project**, aimed at reinforcing the human and institutional capacities required to translate intergovernmental dialogue into effective cooperation initiatives. This module fully reflects the core objective of the BRIDGE project: to place higher education and research at the service of intergovernmental dialogue, by equipping current and future decision-makers with the skills, knowledge, and epistemic networks necessary to support the Italy–Central Asia partnership. Through structured capacity-building, the project contributes to strengthening trust, policy coherence and institutional cooperation within the 5+1 framework, and to translating strategic dialogue into tangible outcomes.

CONTENTS

The module is **structured around three interlinked thematic blocks**. Taken together, they form a coherent and policy-oriented training pathway that reinforces the subsequent thematic SoPs. They ensure that participants approach sector-specific challenges with a shared understanding of context, governance principles and operational constraints, thereby increasing the overall effectiveness and impact of the programme.

a) Italy–Central Asia relations in a changing Eurasian environment

The first block focuses on the political and strategic context of Central Asia-Italy relations, situating the 5+1 format within broader Eurasian dynamics and European policy frameworks. It addresses the evolving political, economic, and cultural dimensions of cooperation, as well as key regional agendas – such as ecological transition, water security, connectivity, and sustainable development – that cut across all four thematic Schools. Selected case studies involving multilateral and development actors illustrate how these priorities are translated into concrete cooperation initiatives.

b) Shared challenges for sustainable development

The second block is grounded in a systematic identification of the shared challenges facing Italy and its Central Asian partners. Climate change, environmental degradation, water scarcity, food security, public health risks, infrastructure resilience and inclusive growth are approached as transnational and interdependent issues that require coordinated policy responses. Starting from this common problem set, the module introduces the Agenda 2030 and the Sustainable Development Goals as a shared policy framework and operational language through which these challenges can be addressed in an integrated and coherent manner. Particular emphasis is placed on multilevel and multistakeholder governance, policy coherence and nexus-based approaches, providing participants with analytical tools applicable across sectors and institutional contexts.

c) Instruments and tools for a shared approach to common challenges

The third block is dedicated to financial and operational instruments for international cooperation. It familiarizes participants with key European and multilateral funding mechanisms, development banks and project-cycle methodologies relevant to Italy–Central Asia cooperation. By strengthening capacities in donor mapping, project design and implementation, this block supports the development of concrete, replicable initiatives aligned with intergovernmental priorities.

TENTATIVE COURSE OUTLINE

Each lecture within the SoP will have an approximative duration of 90' and will be delivered by speakers of recognized expertise and professional standing, drawn from the academic community, public institutions, and the private sector. This plural composition of faculty reflects the interdisciplinary and practice-oriented nature of the programme, ensuring a balanced integration of theoretical perspectives, policy experience, and operational know-how. By bringing together scholars, institutional practitioners, and industry representatives, the lecture format is designed specifically to expose participants to diverse yet complementary viewpoints, thereby strengthening the relevance, credibility, and applicability of the learning process across different governance and policy contexts.

1st Block. Italy–Central Asia relations in a mutable Eurasian environment

1. Italy and Central Asia in the Eurasian Context: Strategic Priorities and Cooperation Frameworks

The lecture introduces the geopolitical and strategic context of relations between Italy and Central Asia, situating them within broader Eurasian and European dynamics. It aims to provide participants with a shared understanding of the 1+5 format and its political relevance. The learning objective is to enhance awareness of the institutional frameworks within which sectoral policies are developed.

2. Multilateral Agendas and Regional Interdependencies

The lecture examines the main multilateral agendas shaping Italy–Central Asia cooperation, including Italy's role at the forefront of EU regional policy, highlighting the interconnections between ecological transition, water security, connectivity, and sustainable development. Its objective is to demonstrate how these priorities cut across all thematic areas addressed by the Schools of Policies. Participants acquire an integrated perspective on regional challenges and policy linkages.

3. From Political Dialogue to Action: Multilateral Case Studies

Through selected case studies, this lecture illustrates how political dialogue and strategic priorities are translated into operational cooperation initiatives. Its objective is to familiarize participants with existing multilateral practices and implementation models. The lecture strengthens participants' capacity to critically assess replicable experiences.

2nd Block – Shared challenges for sustainable development

4. Agenda 2030 and the SDGs: A Global Framework for Sustainable Governance

Starting from an analysis of the major shared challenges affecting Italy and Central Asian countries, The lecture introduces the Agenda 2030 as a comprehensive and globally shared framework for sustainable governance. It examines the integrated and interdependent nature of the Sustainable Development Goals and their relevance for policy design across sectors and governance levels. Participants are guided in understanding how the SDGs function as a common policy language for international cooperation and institutional coordination.

5. The “Nexus” Principle: Integrating Water, Energy, Food and Health Policies

The lecture introduces the nexus approach as a framework for addressing complex and interrelated policy challenges. By focusing on the interconnections between water, energy, food and health systems, it highlights the risks of rigid sectoral fragmentation and the benefits of integrated policymaking. Participants learn how nexus-based approaches can enhance policy coherence and sustainability outcomes.

6. Multilevel Governance and Multistakeholder Approaches: Coordinating Policies and Actors

The lecture explores the principles and practical functioning of multilevel and multistakeholder governance. It focuses on mechanisms for coordination among public institutions, private actors, and international organisations across different governance levels. The objective is to equip participants with analytical tools to design and manage inclusive and coherent policy processes.

7. Policy Coherence for Sustainable Development: Methods and Implementation Challenges

The lecture examines policy coherence as a central requirement for effective and sustainable development strategies. It presents analytical methods for assessing alignment between policy objectives, instruments, and outcomes, while addressing common institutional and political challenges to implementation. Participants develop a critical understanding of how coherence can be strengthened in practice.

8. Tools for Evaluation and Impact Measurement of Sustainability Policies

The lecture focuses on the evaluation and measurement of the impact of sustainability-oriented policies. It introduces key qualitative and quantitative tools used to assess effectiveness, efficiency, and long-term outcomes. The objective is to enhance participants' capacity to support evidence-based policy-making and continuous policy improvement.

3rd Block – Instruments and tools for a shared approach to common challenges

9. European Cooperation Instruments and Strategic Initiatives

The lecture presents the main European instruments for international cooperation and their strategic use in the Italy–Central Asia context. Its objective is to familiarize participants with available policy and financing frameworks. The lecture provides an initial mapping of European cooperation tools.

10. Multilateral Development Banks and International Funds

This lecture analyses the role of multilateral development banks and international funding mechanisms in supporting development and cooperation. It aims to clarify their mandates, priorities and operational procedures. Participants gain insight into how to effectively engage with these institutions.

11. Donor Mapping and Strategic Positioning

This lecture introduces donor mapping as a key analytical tool for international cooperation. Its objective is to enable participants to identify relevant actors, funding priorities and strategic entry points. It strengthens participants' ability to position projects within competitive funding environments.

12. Project Cycle Management: From Ideas to Implementation

This lecture provides a structured overview of the project cycle, from problem identification to implementation and evaluation. It aims to link analytical assessment with operational planning. Participants acquire a shared methodological approach applicable across sectors.

13. Designing Replicable and Bankable Cooperation Projects

This lecture focuses on transforming policy priorities into concrete, financially viable and replicable cooperation projects. Its objective is to strengthen practical project design skills relevant to all thematic areas. The lecture prepares participants for the applied components of the Schools of Policies.

14. Leadership, Teamwork and Intercultural Communication

This lecture develops essential cross-cutting competencies for operating in international and multilevel cooperation contexts. It aims to strengthen collaborative leadership, teamwork and intercultural communication skills. These competencies support the effectiveness of institutional dialogue and joint project work.

15. Digital Policy Making and Digital Transformation for Development

This lecture introduces the role of digital transformation in public policy and territorial development, including the emerging use of artificial intelligence to support data-driven decision-making and policy design. It provides a foundational understanding of public administration digitalization, impact indicators and measurement tools. The objective is to enhance participants' capacity to integrate digital solutions into cooperation initiatives.

COURSE SCHEDULE

The first module of the training programme has a **total duration of 23 hours** and is structured around two-hour lectures delivered online and at a distance. All teaching activities will be managed through a **dedicated Moodle platform**, which serves as the central learning environment for the course. The platform enables the systematic organization and long-term accessibility of teaching materials, including lecture recordings, presentations, reading lists and supplementary resources, thereby supporting continuity and coherence throughout the learning process.

A key advantage of the Moodle-based delivery is the possibility for participants to access lectures **also in asynchronous mode**. All sessions will be recorded and made available on the platform, ensuring that participants who are unable to attend a specific lecture in real time can nonetheless follow the course without interruption and engage fully with the content. This approach enhances inclusiveness and flexibility, particularly in view of the professional commitments of the target audience.

The course schedule foresees **two lectures per week**, over a period spanning **from the first week of March to the first week of April 2026**. This pacing is designed to balance learning intensity with the participants' professional responsibilities. Overall, the structure and delivery of the first module are intended to ensure high-quality, accessible, and sustainable training, fully aligned with the objectives of the programme.

MODULE 2

INTENSIVE SPECIALIZED SCHOOLS OF POLICY

OVERVIEW AND TEACHING FORMAT

Articulated around **four thematic SoPs**, the second module of the BRIDGE training programme situates water, connectivity, renewable energy, and sustainable agriculture within a broader governance and cooperation framework, contributing to the creation of a shared professional and institutional culture between Italy and Central Asia. It reinforces the role of higher education as a strategic intermediary between knowledge and policy, and supports the development of replicable, context-sensitive solutions to common challenges. Each thematic SoP complements the others and strengthens the overall coherence and impact of the BRIDGE programme, aligning sector-specific capacity building with the strategic priorities of Italy–Central Asia intergovernmental cooperation.

The four specialized **SoPs are designed as advanced, practice-oriented training pathways** that translate the shared analytical foundations acquired during the common module into sector-specific knowledge, skills and professional competencies. In line with the overall philosophy of the BRIDGE programme, the teaching format combines academic rigour with applied learning, ensuring that participants are equipped not only with conceptual frameworks but also with the ability to operationalize them in real policy and governance contexts.

The pedagogical approach of the SoP is structured around three complementary and mutually reinforcing pillars, designed to **integrate analytical grounding, applied learning, and experiential engagement**. Together, these elements create a cohesive learning environment that promotes analytical depth, practical understanding, and the capacity to translate knowledge into context-sensitive policy and cooperation initiatives.

First, **lectures and seminars** provide the theoretical, analytical, and policy-oriented foundations of each thematic School. Delivered by academic experts and experienced practitioners, these sessions combine rigorous conceptual frameworks with an interactive format that encourages dialogue, collective reflection, and discussion of policy challenges relevant to both Italy and the Central Asian countries.

Second, **case-study discussions** bridge theory and practice through the analysis of selected national, regional, and international experiences. Rather than offering prescriptive models, case studies function as analytical tools that promote critical thinking, comparative assessment, and problem-solving, enabling participants to identify transferable lessons and assess their applicability across different institutional and territorial contexts.

Third, **field visits and study tours** constitute the core experiential component of the programme. By engaging directly with institutions, infrastructures, and operational settings, participants gain first-hand insight into how governance frameworks, technological solutions, and organizational models operate in practice. This experiential and empirical dimension strengthens learning outcomes by anchoring conceptual knowledge in concrete realities and fostering direct interaction with practitioners and peers.

SCHEDULE AND ORGANIZATION OF THE INTENSIVE TRAINING MODULES

The intensive training module constitutes the central in-person component of the Schools of Policy and is designed to provide participants with an immersive and practice-oriented learning experience. Each of the 4 Schools of Policy is hosted in a different Italian university and city, in order to leverage local academic expertise, institutional ecosystems, and sectoral excellence. Specifically, the four Schools of Policy will be organized as follows: the Water–Health School will take place in **Venice**, the Sustainable Agriculture School in **Bologna**, the Renewable Energy School in **Milan**, and the Connectivity and Infrastructure School in **Rome**. This geographical distribution reflects both thematic specialization and the intention to expose participants to diverse institutional and territorial contexts within Italy.

Each SoP will have a total duration of 30 hours, delivered over the course of one intensive week. Each lecture will have a duration of two hours and will be delivered by speakers of recognised expertise and professional standing, drawn from the academic community, public institutions and the private sector. This plural composition of faculty reflects the interdisciplinary and practice-oriented nature of the programme, ensuring a balanced integration of theoretical perspectives, policy experience and operational know-how. Each of the intensive modules are scheduled to take place within between mid-April and the end of May.

To ensure full accessibility and inclusiveness, **all travel and accommodation costs related to the participants' stay in Italy will be covered by the project organizers.** This arrangement is intended to facilitate broad and balanced participation from the Central Asian partner countries and to allow participants to focus fully on the academic and professional activities of the intensive training module.

Overall, the structure, timing, and logistical organization of the intensive module are conceived to maximize learning outcomes, foster networking, and peer exchange, and strengthen the experiential dimension of the School of Policies within a clearly defined and efficient operational framework.

Background and Rationale

The water challenges confronting the Central Asian countries reflect patterns that are increasingly familiar also in the Italian context. Water resources in the region are characterised by scarcity and pronounced inter-annual variability, which makes long-term planning and reliable supply particularly demanding. The strong dependence on irrigation and on transboundary rivers implies upstream–downstream dynamics and competing uses that can add further pressure on water systems. In addition, historical pollution from mining activities, industrial development and intensive agricultural practices continues to affect both surface water and groundwater quality. These conditions coexist with rapidly increasing expectations from societies and governments in terms of public health protection, food safety, and broader economic development, including the growth of tourism and industrial sectors.

In parallel, the European Union has progressively developed an integrated and coherent body of legislation that addresses water management along the entire chain. This includes specific provisions for water intended for human consumption, the collection and treatment of urban wastewater, and the management of sludge in ways that increasingly support circular economy objectives. EU legislation also covers water reuse for agricultural irrigation and other non-potable uses, as well as the environmental protection of water bodies and aquatic ecosystems. Taken together, these instruments represent a mature regulatory and policy framework that may offer useful elements of comparison and inspiration for other regions interested in further consolidating their own approaches.

At the global level, the World Health Organization has established widely recognised normative and operational frameworks. These include the Guidelines for Drinking-water Quality and the Water Safety Plan (WSP) approach, which promotes comprehensive, risk-based management from catchment to consumer. Complementary to this, the Sanitation Safety Planning (SSP) framework provides guidance for managing health risks in sanitation and reuse systems. More recently, WHO has also been advancing guidance on wastewater-based epidemiology and environmental surveillance, highlighting the role of wastewater as a valuable early-warning and monitoring tool for public health.

Within this context, the one-week School of Policy is conceived as a platform to facilitate dialogue between these EU and WHO frameworks and the specific realities, experiences and priorities of Central Asian countries. The course will offer senior officials and technical decision-makers a structured overview of European and international approaches to water safety, wastewater management and water reuse, with full recognition of the policy and institutional progress already achieved in the region. It will provide practical tools for risk assessment, risk management and the prioritisation of investments, with a view to supporting the design and implementation of effective and sustainable interventions. Finally, the School will create a space for peer learning and regional exchange, encouraging the sharing of good practices among participating countries and promoting a mutually beneficial, evidence-based cooperation on water policy in Central Asia.

Course Structure and Methodology

The School adopts a mixed-method approach, balancing conceptual depth with practical relevance. Lectures and keynote presentations will introduce core concepts, regulatory frameworks, and illustrative case examples. These will be complemented by interactive

discussions and dedicated Q&A segments, aimed at jointly exploring how the approaches presented may be considered and, where appropriate, adapted considering the diverse institutional and operational contexts.

To reinforce the connection between theory and practice, selected case studies – including examples from arid and semi-arid regions – will be used to illustrate viable solutions, operational challenges and lessons learned. A technical field visit is also envisaged, enabling participants to directly examine the functioning of one drinking-water treatment plant and one wastewater treatment plant, and to engage in an open exchange with facility staff on technical and organizational aspects. In addition, group work will be organized, offering participants the opportunity to work together on the development of preliminary Water Safety Plan (WSP) or Sanitation Safety Plan (SSP) outlines, or on risk-based upgrade plans for existing systems, building on their own national experience and priorities. These exercises are intended to foster teamwork, support intra-country and inter-country exchange, and generate outputs that may be further refined with a view to the 3rd module of the BRIDGE programme.

The School comprise a total of 30 hours of structured learning activities delivered over five consecutive days. Each day will follow a stable and transparent format, designed to support participants' engagement and to facilitate the progressive consolidation of concepts, while also allowing space for dialogue and mutual learning among all countries represented. The daily schedule will be organized into two main teaching and discussion blocks. The morning block will consist of approximately three hours of lectures combined with interactive discussion, during which participants will be invited to share their own experiences and perspectives while engaging with the concepts presented. The afternoon block will provide a further three hours, which may include a combination of lectures, case study analysis, group work or, where appropriate, a field visit.

Overall, the 15 thematic sessions (S1–S15) are distributed across 10 teaching blocks (5 morning and 5 afternoon blocks), for a total of 30 hours of structured activities.

Tentative Course Outline

DAY 1 – NORMATIVE AND CONCEPTUAL FOUNDATIONS

- S1. Architecture of EU water policies and IWRM governance models.
Overview of EU water policy pillars (drinking water, urban wastewater, sludge and reuse) and their coherence with the Water Framework Directive; Integrated Water Resources Management (IWRM): principles, river-basin planning cycle, Programme of Measures, and links with climate adaptation. IWRM practices in Italy and selected European countries: institutional mechanisms of water resources management (competent authorities, river-basin districts/authorities, regulators, regional structures and utilities), including the interaction between governmental bodies, research institutions and regional technical agencies; implications for integrated water management and transboundary basins.
- S2. Directive (EU) 2020/2184 and the risk-based approach to drinking-water supply systems.
Structure and innovations of the new Drinking Water Directive; risk-based management along the whole drinking-water chain; priority pollutants and watch list for emerging contaminants; materials in contact with drinking water and consumer information.
- S3. WHO guidelines, Water Safety Plans and implementation in small and complex systems.

WHO Guidelines for Drinking-water Quality; detailed steps of Water Safety Plans; examples from large and small systems; facilitated discussion on applicability to Central Asian settings and first reflections on national contexts.

DAY 2 – CONTAMINANTS AND DRINKING-WATER TREATMENT

- S4. Classical chemical contaminants in drinking water and specific issues in arid regions. Major “classical” chemical hazards (salinity, nitrates, metals and metalloids, pesticides, industrial pollutants); EU and WHO threshold values; focus on arsenic and fluoride in arid regions; mitigation options (source protection, blending, adsorption, membranes).
- S5. Microbiological risks and Legionella in water systems and buildings. Main microbiological hazards and multiple-barrier approach; focus on Legionella in hospitals, hotels and other buildings; control measures and examples of national guidance.
- S6. Drinking-water treatment and multi-barrier design under climate stress. Conventional and advanced treatment schemes; identification of critical control points; capability to address priority pollutants, classical and emerging contaminants; adaptation to climate change and resource constraints.

DAY 3 – WASTEWATER, SLUDGE, REUSE AND WASTEWATER-BASED SURVEILLANCE

- S7. Urban wastewater and sludge: revised urban wastewater directive and sludge management. Key provisions of the revised directive (coverage of agglomerations, nutrient removal, micropollutants, energy performance); sludge management options and resource recovery; implications for upgrading existing systems.
- S8. Wastewater reuse and Sanitation Safety Planning. EU Regulation on water reuse; quality classes and monitoring requirements; introduction to Sanitation Safety Planning; hazard identification and barrier selection along the reuse chain (from wastewater source to crop and consumer).
- S9. Wastewater-based epidemiology as a tool for public health surveillance. Rationale and components of wastewater-based epidemiology; case studies (e.g. SARS-CoV-2, polio, antimicrobial resistance); emerging WHO guidance; potential applications in Central Asian cities. Structured discussion on institutional and technical prerequisites for implementing wastewater surveillance in the participating countries.

DAY 4 – INTEGRATED RISK MANAGEMENT AND TECHNICAL VISIT

- S10. Integrated risk assessment and management: matrices, MCDA, Decision Support Tools and digitalisation of the water sector. Risk assessment fundamentals; use of risk matrices and multi-criteria decision analysis (MCDA) to prioritise investments. Digitalisation in monitoring, accounting, planning and management of water resources: smart metering, telemetry/SCADA, IoT sensor networks, remote sensing, GIS-based platforms, water accounting and water-balance tools, decision dashboards and (where applicable) digital twins. Data governance and interoperability (standards, data quality, metadata), cybersecurity and operational resilience. Selected European best practices in water-sector digitalisation and their role in enabling and accelerating IWRM implementation.

S11. Presentation of drinking-water and wastewater treatment plants: processes and critical points. Pre-visit briefing: process flow diagrams, critical points, monitoring systems and performance indicators for the plants to be visited; introduction to observation checklists.

S12. Technical visit to a drinking-water treatment plant and a wastewater treatment plant. This session consists of guided technical visits to relevant sites (e.g., a drinking-water treatment plant and a wastewater treatment plant). Beyond the observation of operational processes, the visits will provide an opportunity to explore best practices in water sector digitalisation.

DAY 5 – SYNTHESIS, APPLICATION TO CENTRAL ASIA AND FOLLOW-UP

S13. Technical recap: from EU/WHO frameworks to concrete challenges in Central Asia. Integrated synthesis of the course; mapping of the most relevant elements for each country; identification of capacity gaps and priority areas (laboratories, monitoring, governance, regulation).

S14. Country group work: designing WSP/SSP or risk-based upgrade plans. Introduction to group work objectives and methodology; formation of country or sub-regional groups; selection of a priority system or project by each group. Development of concrete outputs (outline of a WSP, SSP or risk-based upgrade plan), including responsibilities, indicative timelines and key constraints.

S15. Group presentations, policy discussion and follow-up roadmap. Presentations by country groups; peer and expert feedback; identification of next steps and drafting of a short “Venice Roadmap” capturing commitments or intentions for pilot projects, national guideline development and regional cooperation.

Background and Rationale

Connectivity and transport infrastructures represent a strategic pillar of economic development, regional integration, and sustainable growth in Central Asia. As landlocked countries located at the crossroads of major Eurasian transport routes, the Central Asian republics occupy a pivotal position in the development of the Trans-Caspian International Transport Route (TITR), which is increasingly emerging as a key axis of connectivity linking Asia and Europe. The progressive consolidation of the TITR opens concrete prospects for enhanced cooperation between Central Asia and Italy, particularly in the areas of infrastructure planning, multimodal transport, logistics, and corridor governance. Efficient, resilient, and well-governed transport systems are essential not only for facilitating trade and mobility along this strategic route, but also for strengthening territorial cohesion, supporting economic diversification, and enhancing integration into regional and global value chains. In this context, leveraging Italian technical expertise and international experience in transport infrastructure development offers a valuable opportunity to support Central Asian partners in fully realizing the economic and strategic potential of the TITR, while promoting interoperability, shared standards, and sustainable connectivity solutions.

In recent years, the growing prominence of connectivity within regional and multilateral cooperation frameworks has further underscored the need to reinforce institutional capacities in the transport sector. The implementation of large-scale infrastructure projects, the expansion of multimodal corridors, and the digital transformation of transport and logistics services require advanced competencies in strategic planning, regulatory governance, project design, procurement, and access to international financing. The effectiveness and long-term sustainability of transport policies increasingly depend on the ability of public institutions to draw on proven best practices, coordinate across sectors and levels of governance, and engage constructively with private actors and international financial institutions.

Against this background, the School of Policy entitled “Planning, Governance and Financing of Transport Infrastructures and Services” is conceived as a comprehensive capacity-building initiative addressing the entire policy cycle of the transport sector in Central Asia. The School is explicitly grounded in the exchange of best practices and in the comparative analysis of national and international experiences, with particular attention to the Italian model of infrastructure planning, delivery, and governance. A central contribution in this respect is provided by the experience of Italferr, the engineering company of the Ferrovie dello Stato Italiane Group and a leading national and international actor in the design, engineering, project management, and supervision of complex transport infrastructure projects. Drawing on decades of experience in railway systems, multimodal transport, and integrated infrastructure development, Italferr has operated extensively in Italy and abroad in close coordination with public authorities, international financial institutions, and private stakeholders.

The School is structured to provide participants with an integrated and progressive learning pathway. It begins with a focus on transport governance frameworks (Module 1), followed by regional infrastructure planning and programming (Module 2), and an in-depth examination of multilateral financing mechanisms and access to international funds (Module 3). The programme then addresses the operational dimension of transport systems through modules dedicated to project design, procurement, and service management in the Central Asian context (Module 4), as well as innovation, digitalization, and sustainability (Module 5), with particular attention to

regulatory, technological, and environmental challenges specific to the region. A distinctive component of the School is Module 6, which focuses on the autonomous preparation of project proposals. Designed as a bridge between training and implementation, it enables participants to translate sectoral knowledge into concrete and potentially bankable project ideas, to be presented and discussed in a subsequent thematic workshop to be held in Central Asia in the BRIDGE project phase no.3.

By combining best practices exchange, Italian and international operational experience, and a strong project-oriented focus, the Connectivity School aims to strengthen institutional capacities, promote shared approaches and standards in transport governance, and contribute to the emergence of concrete and sustainable cooperation initiatives in the field of transport and connectivity between Central Asia and its international partners.

Tentative Course Outline

MODULE 1 – Transport Governance

1. Institutional Framework and Governance

Outline of the institutional framework for planning and implementing public transport infrastructure projects, focusing on the roles and responsibilities of central and regional authorities and their decision-making processes. It situates infrastructure governance within national strategic priorities—such as connectivity, energy security, regional integration, economic development, and logistics—and introduces the key planning instruments used to ensure coordination among ministries, technical agencies, and regional authorities. Particular attention is given to multimodal corridors and their multisectoral functions at the intersection of transport, logistics, and territorial development.

2. Infrastructure Management and Regulatory Models

Overview of infrastructure management and regulatory models, focusing on the role of national technical agencies and the main features of Public–Private Partnerships and concession schemes, including their opportunities and limitations. It addresses key governance sensitivities such as administrative capacity, regulatory and permitting frameworks, and coordination with cross-border projects, with particular attention to financial implications. The session also examines reform dynamics in areas such as railway access regulation, logistics integration and special economic zones, and the digitalisation of transport and trade flows through instruments such as e-certificates and smart corridors.

3. Cross-cutting Challenges

Key cross-cutting challenges in transport infrastructure development, focusing on geographical constraints, links with territorial economic development, security and geopolitical factors, and the need to align projects with international environmental, social, and procurement standards.

MODULE 2- Infrastructure Planning and Programming

1. Planning Systems

Top-down infrastructure planning, focusing on the roles of central and regional authorities and the function of National Transport Plans in supporting economic development. It highlights the need to align national objectives with regional corridors and underscores the strategic role of nodal infrastructure – such as airports, stations, and intermodal and logistics hubs – in ensuring efficient and integrated transport systems.

2. Infrastructure Programming

Infrastructure programming within a multisectoral planning framework, addressing priority setting in trade facilitation, market access, and resilience. It introduces the key analytical tools supporting investment decisions, including due diligence, feasibility studies, and preliminary design as foundations for sustainable infrastructure projects.

3. Analytical Methods

Key analytical tools for infrastructure planning, including demand analysis, macroeconomic scenarios, and multi-criteria analysis for data-scarce contexts. It also introduces a simplified cost–benefit analysis aligned with ADB and World Bank standards to support socio-economic evaluation and informed investment decisions.

4. Practical Lab

Mini multi-criteria assessment for a road or rail section: methods and parameters

MODULE 3 - Multilateral Financing and Access to International Funds

1. Main Financing Institutions

Introduction to the main multilateral financing institutions active in Central Asia’s transport sector, providing participants with a practical overview of their mandates and priorities. It focuses on the Asian Development Bank and its CAREC transport operations, the World Bank’s Transport Global Practice with attention to road safety and resilience, the Asian Infrastructure Investment Bank’s emphasis on connectivity and green infrastructure, and the EBRD’s role in urban mobility, railways, and border crossings. The session also briefly addresses other relevant actors, including the Islamic Development Bank, UNDP, and the Green Climate Fund, framing their instruments within PPP and blended finance approaches relevant to the regional context.

2. Accessing Financing

Examination of national and international project pipelines, project screening procedures, and key procurement rules. It introduces the ADB Procurement Framework and World Bank Procurement Regulations, providing participants with essential tools to align project proposals with multilateral financing requirements.

3. Required Documentation

Analysis of the core documentation required for engagement with multilateral development banks, including the Project Concept Note, feasibility studies, environmental and social assessments, economic and financial appraisals, implementation schedules, and safeguards compliance. It equips participants to prepare coherent, bank-ready project documentation aligned with the requirements of the World Bank, ADB, AIIB, and EBRD.

4. PPPs and Concessions in the Region

Case studies

5. Practical Lab

Preparation of an ADB/WB-style project fiche for a CAREC road section

MODULE 4 – Design, Procurement, and Management of Transport Services

1. Technical Design

Introduction to the core technical design standards applied in transport infrastructure projects financed by multilateral institutions, with particular reference to CAREC and ADB frameworks. It focuses on key aspects of geometric and pavement design, road safety audits, and the

practical adaptation of engineering solutions to challenging mountainous and steppe environments, highlighting their implications for project implementation, management, and long-term maintenance.

2. Authorization Process

Analysis of the authorization phase after project approval, focusing on permitting, land acquisition, and the application of environmental and social safeguards to ensure compliant and effective project implementation.

3. Procurement

Overview of procurement processes in transport infrastructure projects following approval. It introduces the structure and requirements of bidding documents under ADB/WB frameworks, outlines the main procurement models (Design-Bid-Build and Design & Build) and explains the role of supervision and monitoring services in ensuring compliance, quality control, and effective project implementation.

4. Transport Service Management

Focus on transport service management after project approval, addressing urban public transport tariff and compensation models and the integration of air, rail, and road services within multimodal mobility systems.

5. Maintenance and Asset Management

Focus on maintenance and asset management after project approval, examining recurrent challenges—climatic, geological, and overload-related—and introducing planned maintenance systems to ensure infrastructure durability and long-term performance.

MODULE 5 - Innovation, Digitalization, and Sustainability

1. Smart Corridors

Analysis of how digital innovation is transforming logistics and regional mobility through the development of smart corridors. It focuses on border digitalization mechanisms, such as Single Window systems, as tools to streamline cross-border procedures and enhance efficiency. The session also introduces freight tracking solutions and Intelligent Transport Systems (ITS), as well as key CAREC and ADB digital initiatives, including e-TIR, e-CMR, and the broader digitalization of transport and trade documentation.

2. Emerging Mobility as a Service (MaaS)

Introduction to emerging Mobility as a Service (MaaS) models, focusing on pilot applications and digital ticketing systems that illustrate how digital solutions are transforming integrated and interoperable mobility services in the regional context.

3. Electric Mobility and Decarbonization

Introduction to electric mobility as a key driver of transport decarbonization, focusing on national EV programs and the role of climate-related financing instruments, such as the Green Climate Fund and the Climate Investment Funds, in supporting low-carbon mobility and logistics solutions.

4. Climate Resilience

Focus on climate resilience in transport infrastructure, addressing the adaptation of road networks in mountainous areas and introducing ADB guidelines for integrating resilience into planning, design, and maintenance.

MODULE 6 – How to Independently Prepare a Project Proposal

The module is designed to provide participants with the methodological and practical tools required to autonomously develop a structured and coherent project proposal in the transport and connectivity sector. The module focuses on the full project preparation cycle, guiding participants through the key dimensions necessary to transform policy priorities and sectoral needs into concrete, well-founded project initiatives.

Participants are introduced to the structuring of an intervention along three interrelated pathways: the technical pathway, covering feasibility analysis and preliminary design; the administrative pathway, addressing institutional procedures, inter-ministerial coordination, and national permitting processes; and the financial and economic pathway, with specific reference to the requirements and appraisal frameworks of major international financial institutions, including the Asian Development Bank, the World Bank, and the Asian Infrastructure Investment Bank. Particular emphasis is placed on ensuring coherence between proposed interventions and overarching strategic frameworks, notably CAREC 2030 and relevant national development plans. The expected outcome of the module is the preparation of project proposals, structured to include a clear problem statement, an assessment of alternative project options, a preliminary cost framework, the identification of key institutional stakeholders, the indication of a potential financing partner, an analysis of risks and mitigation measures, and a coherent project timeline.

SPECIALIZED SCHOOL OF POLICY NO.3: SUSTAINABLE AGRICULTURE

Bologna, Alma Mater Bologna University in cooperation with Tuscia University

Background, Rationale, and Aims

The School of Policy on Sustainable Agriculture addresses agriculture not as an isolated sector, but as a strategic policy domain located at the intersection of climate change, water governance, food security and territorial development—all of which are central priorities in the evolving partnership between Italy and the countries of Central Asia.

Agricultural systems in both Italy and Central Asia are increasingly exposed to structural pressures generated by climate change, including rising temperatures, water scarcity, soil degradation and more frequent extreme weather events. These challenges transcend national borders and sectoral boundaries, requiring integrated responses that combine governance capacity, technological innovation, and context-sensitive policy design. In this respect, sustainable agriculture constitutes a privileged entry point for advancing Italy–Central Asia cooperation, as it directly links environmental sustainability with economic resilience, social stability, and long-term development.

Building on the analytical, conceptual, and operational foundations established during the common training phase, the School of Policy on Sustainable Agriculture aims to translate shared frameworks – such as the SDGs, multilevel governance principles and nexus-based approaches – into sector-specific competencies and applied knowledge. Particular emphasis is placed on the water–agriculture–climate nexus, reflecting its critical relevance for Central Asian countries and its growing importance within European and Italian policy agendas.

Italy offers a particularly valuable reference context for this purpose. Its agricultural landscape combines centuries-old farming traditions with advanced technological solutions in irrigation, precision agriculture, land reclamation and risk management. Italian experiences demonstrate how productivity, climate adaptation and environmental protection can be reconciled through institutional coordination, public–private cooperation and innovation at both large-scale and family-farm levels. The School leverages this “living laboratory” to provide participants with concrete, practice-oriented insights that can be critically assessed and adapted to Central Asian contexts.

The primary objective of the School of Policy on Sustainable Agriculture is to strengthen the analytical, institutional, and operational capacities of public officials and practitioners from Central Asia in addressing climate-related challenges in the agricultural sector. More specifically, the School aims to:

- a) enhance participants’ understanding of the interlinkages between agriculture, water resources and climate change;
- b) introduce governance approaches and policy instruments for sustainable and climate-resilient agricultural systems;
- c) present innovative technologies and practices for irrigation efficiency, soil management and crop resilience;
- d) facilitate the critical transfer of Italian experiences and best practices to Central Asian national and regional contexts;
- e) foster professional networks and long-term cooperation between Italian and Central Asian institutions, experts, and practitioners.

Through these objectives, the School directly supports the broader goals of the BRIDGE project and contributes to translating intergovernmental dialogue within the Italy–Central Asia 1+5 framework into concrete capacity-building outcomes.

Structure and Pedagogical Approach

The School of Policy on Sustainable Agriculture is structured as a one-week intensive programme, articulated into three interconnected components that progressively move from governance frameworks to applied learning:

- 1) The first component focuses on agriculture, water and innovation under climate change, addressing the policy, governance and technological dimensions of adaptation. It provides participants with a structured understanding of climate impacts on agricultural production, water availability and land management, while introducing tools such as precision agriculture and digital technologies as enablers of sustainable transformation.
- 2) The second component is dedicated to Italian best practices, highlighting concrete experiences in integrated water and land management, innovation in different farming models and forms of public–private cooperation. Contributions from academic experts and practitioners ensure a balanced perspective that links policy design with operational realities.
- 3) The third component emphasises applied learning through case studies and field visits, allowing participants to observe first-hand how Italian agricultural systems respond to climate pressures. These activities are designed to encourage critical reflection, comparative analysis and peer-to-peer exchange, with a strong focus on transferability and contextual adaptation.

Throughout the School, teaching methods combine lectures, interactive seminars, case study discussions and site visits, in line with the overall BRIDGE methodology. This integrated approach ensures that participants not only acquire knowledge, but also develop practical skills and analytical capacities relevant to their institutional roles.

Overall, the 15 thematic sessions (S1–S15) are distributed across 3 teaching blocks, for a total of 30 hours of structured activities.

Tentative Course Outline

Part 1 – Agriculture, Water and Innovation under Climate Change: governance and policies

This module introduces the main challenges climate change poses to agricultural systems, with a focus on water availability, irrigation efficiency, soil management, and crop resilience. Sessions will cover:

- S1. Climate trends and impacts on agricultural production
The session examines the impacts of climate change on agricultural production, focusing on climate trends, water scarcity, and risks to crop productivity.
- S2. Water management and irrigation systems
The session addresses governance and technical solutions for water management in agriculture, with particular attention to irrigation systems, efficiency, and sustainable resource use.
- S3. Precision agriculture and digital tools
This session examines the role of precision agriculture and digital technologies in improving resource efficiency, monitoring, and decision-making in farming systems.

S4. Innovation for drought, heat, and extreme events

This session explores innovative solutions to address drought, heat stress, and extreme climate events, strengthening the resilience of agricultural systems.

Part 2 – Italian Best Practices

This section highlights successful Italian approaches that combine agricultural productivity with climate adaptation. Topics include:

S5. Integrated water and land management

This session presents Italian best practices in the integrated management of water and land resources, illustrating how coordinated planning and governance can enhance agricultural productivity while strengthening climate resilience.

S6. Public–private cooperation in agriculture

This session explores Italian experiences of public–private cooperation in the agricultural sector, highlighting partnership models that support investment, innovation, and sustainable value-chain development.

S7. Innovation in large-scale and family farming

This session examines Italian approaches to agricultural innovation across both large-scale and family farming systems, focusing on technologies and practices that improve efficiency, sustainability, and adaptability to climate and market challenges.

S8. Case Study Presentation

Experts from academia and the private sector will share concrete experiences and lessons learned.

Part 3 – Italian Case Studies and Field Visits

The final part focuses on applied learning through case studies and study visits. Field visits are designed to encourage discussion, comparison with the Central Asian context, and hands-on learning. Participants will visit key agricultural sites, such as *Bonifiche Ferraresi* or *Consorzio Bonifica Renana* to observe:

- Large-scale farm management under climate pressure
how large-scale agricultural enterprises adapt management practices to climate variability, focusing on resilience strategies, productivity under environmental stress, and organizational responses to increasing climatic uncertainty.
- Advanced irrigation and water-saving technologies
application of innovative irrigation systems and water-efficiency solutions, highlighting technological approaches to reducing water consumption while maintaining agricultural productivity.
- Crop diversification and risk management strategies
crop diversification as a tool for managing agronomic and market risks, analyzing how diversified production systems contribute to economic stability, resilience, and long-term sustainability.

Background, Rationale, and Aims

The energy landscape has become increasingly complex and rapidly evolving. Also Central Asia, a region historically reliant on abundant fossil fuel resources and large hydropower systems, is now confronted with the need to diversify its energy mix, enhance energy security, and reduce greenhouse gas emissions in line with global climate commitments. At the same time, growing electricity demand, ageing infrastructure and pronounced seasonal and inter-annual variability—both in water availability and in energy needs—make long-term planning particularly challenging. In parallel, the European Union has progressively developed a comprehensive and integrated policy framework for the energy transition. This includes, among others, the European Green Deal and the associated “Fit for 55” package, the Renewable Energy Directive, the Energy Efficiency Directive, and legislation on electricity market design and security of supply. Taken together, these instruments promote a deep transformation of the energy system, centered on the large-scale deployment of renewable energy sources, improvements in energy efficiency, and the modernization and digitalization of electricity networks. The EU framework increasingly integrates climate, environmental, industrial, and social objectives, and can offer useful reference points and lessons for other regions that are consolidating their own pathways towards low-carbon and resilient energy systems.

At the global level, the Paris Agreement under the UNFCCC, the Nationally Determined Contributions (NDCs) and Long-Term Low Emission Development Strategies (LT-LEDS) provide the overarching context for decarbonization. International organizations such as the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA) and multilateral development banks have developed widely used analytical tools, scenarios, and operational guidelines to support the design of clean energy transitions. These approaches emphasize the role of renewable energy, energy efficiency, smart grids and green finance as key pillars of sustainable development, while recognizing the diversity of national circumstances and starting points.

Within this context, the one-week School of Policy on Energy is conceived as a platform to facilitate dialogue between EU and international frameworks for the green transition and the specific realities, experiences, and priorities of Central Asian countries. The course will offer senior officials and technical decision-makers a structured overview of European and international approaches to renewable energy, power system transformation and green finance, with full recognition of the policy and institutional progress already achieved in the region. It will provide practical tools for analysing energy systems, prioritizing investments and designing enabling regulatory and financial frameworks, with a view to supporting effective and sustainable interventions. Finally, the School will create a space for peer learning and regional exchange, encouraging the sharing of good practices among participating countries and promoting mutually beneficial, evidence-based cooperation on energy policy and green transition in Central Asia.

The program foresees 15 thematic sessions (S1–S15) distributed across 5 days, for a total of 30 hours of structured activities.

Tentative Course Outline

Day 1 – Normative and conceptual foundations of the energy transition

S1. Architecture of EU and international energy and climate policies.

Overview of the main EU energy and climate policy “family” (European Green Deal, renewable energy and energy efficiency legislation, electricity market design), links with climate neutrality, energy security and industrial policy; connections with global frameworks such as the Paris Agreement and SDG 7; implications for integrated energy system planning and regional cooperation.

S2. National decarbonization strategies and pathways.

Structure and components of Nationally Determined Contributions and long-term decarbonization strategies; typical mitigation pathways for the power, industry, buildings, and transport sectors; discussion of how Central Asian countries are articulating their own strategies and what this implies in terms of institutional arrangements and investment needs.

S3 – Energy system transitions: concepts, indicators, and Central Asian perspectives.

Core concepts for understanding energy transitions (energy mix, capacity factors, load curves, flexibility, just transition); key indicators to monitor progress (emissions intensity, share of renewables, energy intensity, access, and affordability); facilitated discussion on how these concepts apply to Central Asian settings and first reflections on national contexts and priorities.

Day 2 – Energy resources, renewable technologies, and system planning

S4. Energy resources and current mixes in Central Asia: fossil fuels, hydropower and renewables.

Overview of primary energy resources in the region; current electricity and heat generation mix; role of cross-border trade; structural challenges related to ageing infrastructure, losses and seasonal variability; opportunities for diversification through renewable energy and efficiency improvements.

S5. Renewable energy technologies: technical and economic fundamentals for decision-makers.

Main renewable energy options (solar PV and solar thermal, wind, hydropower, bioenergy and emerging options such as green hydrogen) with a focus on their technical characteristics, siting requirements, performance factors and indicative costs; considerations specific to arid and semi-arid regions, mountainous areas and remote settlements.

S6. Planning resilient and low-carbon power systems under climate and demand stress.

Principles of power system planning with increasing shares of variable renewables; role of flexible generation, storage, interconnections, and demand-side measures; consideration of climate impacts on hydropower, cooling needs and peak demand; approaches to assessing system resilience and security of supply in a decarbonizing context.

Day 3 – Grids, markets, energy efficiency and data for the transition

S7. Electricity networks, smart grids, and regional interconnections.

Organization and functioning of transmission and distribution systems; technical and regulatory aspects of integrating variable renewable energy into the grid; smart grid concepts (digitalization, smart meters, automation) and their relevance in different Central Asian settings; opportunities and challenges of regional interconnections and cross-border electricity trade.

S8. Energy efficiency and sector coupling: buildings, industry, and transport.

Key roles of energy efficiency in the green transition; policy instruments and programmes in the buildings and industrial sectors; emerging trends in electrification of end-uses (e-mobility, heat pumps, electric boilers) and in sector coupling (power-to-heat, power-to-hydrogen); interactions between efficiency, electrification and renewable deployment.

S9. Data, monitoring and analytical tools for guiding the energy transition.

Importance of robust data for planning, monitoring and evaluation; examples of energy balance, modelling and scenario tools used internationally; introduction to basic approaches for assessing mitigation potential and prioritising measures; structured discussion on institutional and technical prerequisites for strengthening data and analytical capacities in the participating countries.

Day 4 – Investment planning, green finance, and technical visit

S10. Risk-based investment planning and decision support in the energy sector.

Fundamentals of investment appraisal in energy (capital and operating costs, levelized cost of energy, sensitivity analysis); introduction to risk assessment and risk matrices in energy projects (technical, regulatory, market and social risks); use of multi-criteria decision analysis and decision support tools to prioritize projects and portfolios in line with policy objectives.

S11. Preparing for the field visit: renewable plants, smart grids, and performance indicators.

Pre-visit briefing on the facilities to be observed (e.g. a solar PV plant, a wind farm, a district heating system with renewables, or a smart grid demonstration site); review of process diagrams, main components, monitoring systems and performance indicators; introduction to observation checklists focusing on technical, organizational and regulatory aspects.

S12. Technical visit to a renewable energy installation and/or smart grid facility.

Guided visit, typically organized in one or two parts (e.g. generation plant and grid or control centre). Participants will have the opportunity to observe real-world operation, ask questions to plant and system operators, and discuss topics such as integration of renewables, forecasting, maintenance, grid constraints, revenue streams and interaction with regulators and markets.

Day 5 – Synthesis, application to Central Asia and follow-up

S13. Technical recap: from EU and international energy frameworks to concrete challenges in Central Asia.

Integrated synthesis of the course, revisiting how the different building blocks (policy frameworks, technologies, grids, efficiency, finance) fit together in practice; mapping of the most relevant elements for each country; identification of capacity gaps and priority areas (regulation, planning, data, financing, implementation).

S14- Country group work: outlining clean energy transition roadmaps or investment information packages.

Introduction to group work objectives and methodology; formation of country or sub-regional groups; selection by each group of a priority thematic area (e.g. solar deployment in a specific region, modernization of distribution networks, district heating decarbonization) or of a broader national roadmap focus, to be developed during the group exercise. Development of concrete outputs (e.g. outline of a clean energy transition roadmap, an investment information package, or a risk-based upgrade plan for a specific sub-sector), including proposed measures, key actors, indicative timelines, potential financing sources and main constraints.

S15. Group presentations, policy discussion and follow-up roadmap.

Presentations by country groups; peer and expert feedback; identification of next steps and potential areas for pilot projects, regulatory reforms, capacity-building activities or regional initiatives; drafting of a short “Venice Roadmap” or equivalent document capturing key messages, intentions and opportunities for continued cooperation on energy policy and the green transition in Central Asia.

MODULE 3

BEST PRACTICES EXCHANGE AND JOINT PROJECT DEVELOPMENT

RATIONALE AND OBJECTIVES

Module 3 constitutes the **operational and consolidating phase of the BRIDGE training pathway**. Following the conceptual and analytical grounding provided by the common online module and the sector-specific expertise developed during the intensive in-person training in Italy, this module is designed to move decisively from classroom-based learning to applied cooperation and project-oriented outcomes.

The rationale underpinning Module 3 is the recognition that capacity-building initiatives achieve lasting impact only when knowledge and skills are translated into concrete, context-sensitive, and implementation-oriented outputs. In this perspective, the module provides participants with an opportunity to operationalize the competencies acquired in the previous phases by developing and refining pilot cooperation projects aligned with institutional priorities and sectoral needs in their respective countries.

By **focusing on the joint elaboration and discussion of pilot small-scale project proposals**, Module 3 strengthens ownership among participants, reinforces peer-to-peer learning, and supports the emergence of shared approaches to policy design and project development. It is explicitly conceived as a **bridge between training and future cooperation initiatives**, offering a structured environment in which ideas can be tested, compared, and improved through collective discussion and expert feedback.

FORMAT AND THEMATIC WORKSHOPS

Module 3 is structured around a series of **thematic workshops to be held in Central Asia**, each explicitly aligned with the thematic focus of the specialized Schools of Policy delivered during Module 2. Accordingly, **the workshops will mirror the core sectoral areas addressed** in the intensive training phase – namely water-health, connectivity, sustainable agriculture, and renewable energy – ensuring continuity between the analytical and applied components of the programme. This thematic alignment is intended to facilitate the direct translation of sector-specific knowledge and competencies acquired in Module 2 into concrete, context-sensitive pilot cooperation projects, while reinforcing coherence across the different phases of the training pathway. Each workshop will have a duration of one to two days and will focus on one of the core thematic areas of the School of Policies. The workshops represent the culmination of the training pathway and are centered on the presentation, discussion, and refinement of pilot project proposals prepared by participants after completion of Modules 1 and 2.

Within each workshop, **participants will present their draft project ideas** in a structured and comparative setting, allowing for peer exchange, critical discussion, and cross-fertilization of approaches across institutional and national contexts. Particular attention will be devoted to assessing the feasibility, coherence, and potential replicability of the proposed initiatives, as well as their alignment with national development priorities and regional cooperation frameworks.

The rationale underpinning Module 3 is fully aligned with the orientations expressed in the Joint Declarations adopted within the Central Asia–Italy dialogue. In particular, it reflects the objective articulated at the 5+1 Ministerial Conference held in Rome, which emphasized the need to develop initiatives capable of generating concrete follow-up actions and of strengthening the fabric of relations between Italy and Central Asia, as well as the Astana Joint Declaration, in which the Leaders explicitly advocated for enhanced knowledge exchange and the establishment of knowledge networks as effective tools to address shared challenges and to promote sustainable cooperation across key sectors (paragraph 22).

The **tentative and proposed thematic and geographical allocation of the workshops**, subject to discussion and agreement with the regional partners, is as follows:

- a) Kazakhstan – Connectivity
- b) Kyrgyzstan – Water and Health
- c) Tajikistan – Renewable Energy
- d) Turkmenistan – Sustainable Agriculture
- e) Uzbekistan – Territorial Development (*parallel MAECI-funded project run by Bologna University*)

This decentralized format is intended to enhance regional ownership, ensure thematic relevance to local contexts, and further strengthen the Knowledge Networks established during earlier phases of the project.

ORGANIZATIONAL RESPONSIBILITIES AND COST-SHARING ARRANGEMENTS

From an organizational standpoint, **each thematic workshop will be hosted by the relevant national institution in the selected Central Asian country**, in close cooperation with the Italian academic and institutional partners involved in the corresponding School of Policies. This collaborative arrangement ensures both local anchoring and continuity with the training methodology and content developed during the previous modules.

With regard to financial responsibilities, Module 3 adopts a **shared cost-sharing approach**, designed to promote balanced participation and institutional commitment:

- Each participating Central Asian country will be responsible for covering the international travel costs of its own representatives attending the workshops in person, without prejudice to the possibility of participating remotely online.
- The host country of each workshop will be responsible for local hospitality costs, including accommodation and meals for participants during the event.

This division of responsibilities reflects a **cooperative and sustainable organizational model**, consistent with the overall objectives of the BRIDGE project, and supports the long-term viability of similar exchange and cooperation formats beyond the duration of the programme.

By combining applied project development, decentralized thematic workshops, and shared organizational responsibility and ownership, Module 3 reinforces the transition from training to action and contributes directly to the emergence of concrete, jointly steered cooperation initiatives between Italy and Central Asia.