



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



MINISTRY OF  
ECONOMY  
OF UKRAINE

A photograph of a modern, multi-story building with a glass facade, partially obscured by out-of-focus green leaves in the foreground. The sky is blue with some clouds.

# THE NATIONAL GUIDING FRAMEWORK FOR STANDARDS AND TECHNICAL REGULATIONS

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UNDERPINNING THE GREEN RECONSTRUCTION OF UKRAINE



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The work has been realized with the support of Switzerland, through the State Secretariat for Economic Affairs (SECO) and the Federal Ministry for Economic Cooperation and Development of Germany (BMZ).

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UNDERPINNING THE GREEN RECONSTRUCTION OF UKRAINE

# Constructing a better future for Ukraine



Ukraine is currently facing huge challenges, which also provide unique opportunities. The ongoing armed conflict has devastated critical infrastructure, leaving many of the country's essential systems, buildings, and services. This destruction, however, presents an opportunity to rebuild the country – not just to restore the past, but to construct a future that is more resilient, sustainable, and greener.

Ukraine's Recovery Vision emphasizes this potential, aiming to rebuild better by integrating environmental and social sustainability considerations into the reconstruction process. A critical element to achieve this goal is a well-functioning quality infrastructure system (comprising standards, regulations, metrology and accreditation as well as conformity assessment processes such as inspection, testing and certification) that can support the green reconstruction of the country. International standards, which have evolved to address pressing global issues such as climate change, circular economy needs, carbon neutrality, and decarbonization, play a vital role in this vision.

These standards serve as the foundation for technical regulations, guiding public and private investment projects, as well as the management of services. By leveraging international best practices, Ukraine can ensure that its rebuilding efforts align with global sustainability goals and contribute to long-term environmental health, supporting Ukraine's transition towards a green, sustainable future.

## Leveraging standards and technical regulations for a green reconstruction: The National Guiding Framework

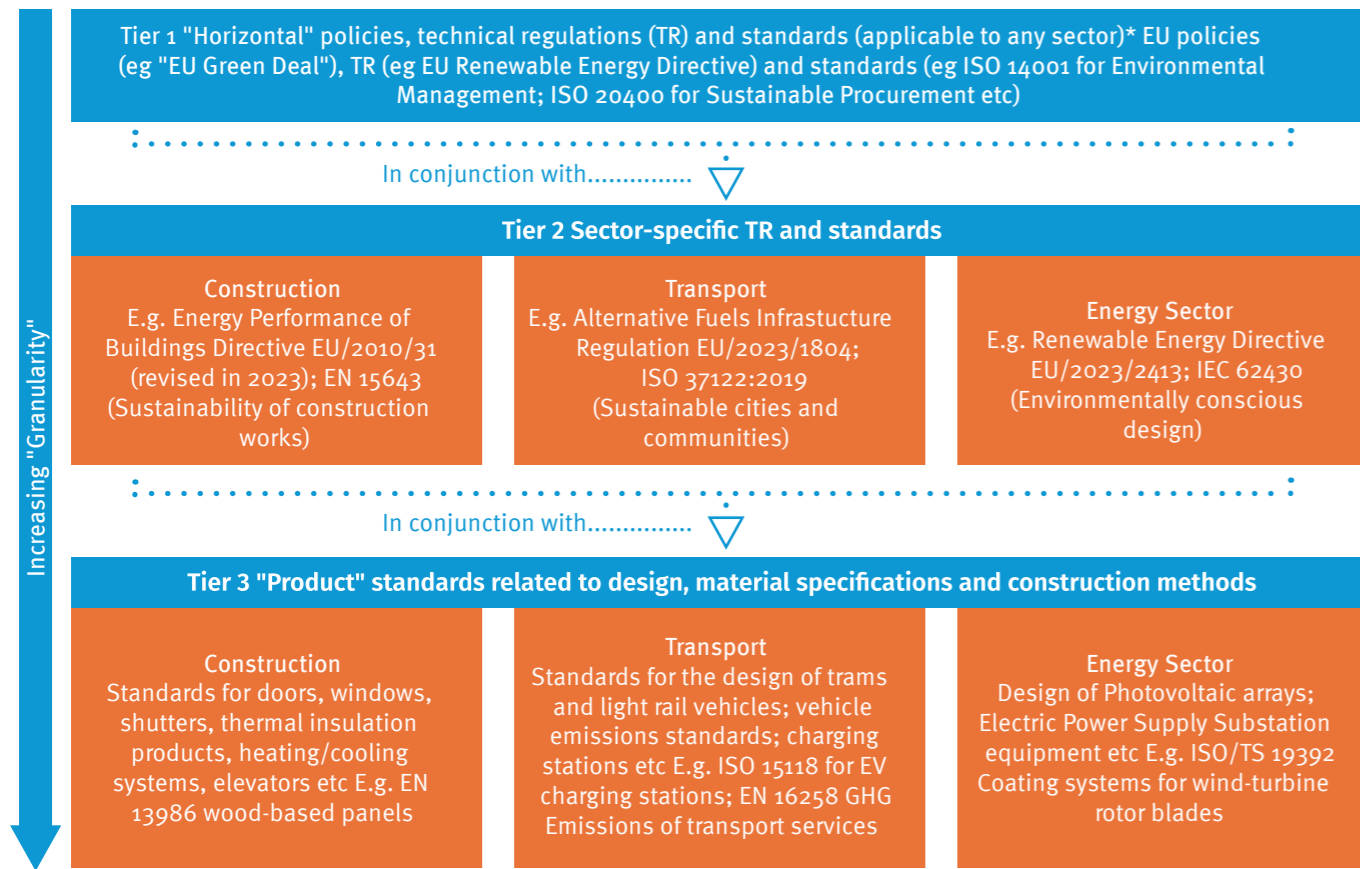


The National Guiding Framework (NGF) for the green reconstruction of Ukraine, jointly developed by UNIDO and the Ministry of Economy of Ukraine, has the clear and ambitious goal to support Ukraine in rebuilding its infrastructures and systems in a way that is environmentally sustainable, economically viable, and aligned with international best practices.





The NGF aims to provide strategic guidance on the application of standards and regulations to ensure that all reconstruction efforts prioritize the environment, social well-being, and long-term resilience. It establishes a comprehensive set of standards and technical regulations for the green reconstruction of essential infrastructure, services, and their management. These standards will serve as the foundation for guiding both public and private sector investments, ensuring that projects are designed, implemented, and maintained with a focus on sustainability.

A core aspect of the NGF is its focus on the integration of environmental sustainability into **all stages of reconstruction** – from planning and design to construction and operation. It can be applied across priority sectors such as **energy, transportation, water, and waste management**.

## National Guiding Framework for the Green Reconstruction of Ukraine



The NGF's structure is built to be flexible and scalable, allowing for the gradual implementation of its components over time. At its core, the NGF consists of several interrelated dimensions, including:

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**Level of Granularity:** The NGF is structured to provide a clear and detailed level of guidance, with specific technical regulations tailored to different sectors and industries. These regulations are designed to be actionable and easily integrated into the national legislative framework.
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**Hierarchical Structure:** The NGF includes a tiered approach, with overarching national policies that guide the reconstruction process, supported by sector-specific regulations and technical standards. This hierarchical structure ensures that the framework can accommodate the diversity of reconstruction needs while maintaining consistency and coherence across all sectors.
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**Cross-Sector Integration:** The NGF is not limited to one specific area of infrastructure but encompasses all key sectors necessary for the country's recovery, such as housing, transport, energy, and utilities. This ensures that environmental sustainability is embedded across the entire reconstruction process, promoting synergies between different sectors and maximizing the efficiency of resources.
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**Capacity Building and Institutional Support:** The NGF also emphasizes the importance of capacity-building efforts, including the strengthening of national institutions, improving the technical skills of the workforce, and providing training for key stakeholders involved in the reconstruction process. This is essential for the long-term success and sustainability of Ukraine's green reconstruction efforts.

*Ultimately, the NGF aims to position Ukraine as a leader in sustainable development, not only within the context of its own recovery but also as part of the global effort to combat climate change. By building green infrastructure that meets international standards, Ukraine can rebuild its economy while ensuring a better, more sustainable future for its citizens and the planet.*

## The Role of Public Procurement and the Use of Standards

One of the most critical elements of ensuring the success of Ukraine's green reconstruction is public procurement. Public procurement plays a pivotal role in driving the adoption of sustainable practices by setting the criteria for projects and investments. By mandating compliance with international standards and technical regulations, governments can ensure that infrastructure projects adhere to environmental and social sustainability principles.

Public procurement and standards are deeply interconnected. Standards help define the specifications for public and private investments, ensuring that projects contribute to long-term sustainability goals such as carbon neutrality and circular economy. The use of standards in public procurement also ensures transparency, accountability, and consistency across all stages of reconstruction. By integrating standards into procurement processes, Ukraine can foster innovation, create green jobs, and stimulate the development of sustainable industries. This approach also helps to strengthen Ukraine's ability to compete in the global market by meeting internationally recognized environmental and social standards.

# Towards the National Guiding Framework



The development of the National Guiding Framework (NGF) for Standards and Technical Regulations for the Green Reconstruction of Ukraine was a collaborative and systematic effort. It involved extensive consultation with diverse stakeholders, and working closely with the Ministry of Economy of Ukraine. This inclusive approach will remain fundamental during implementation, utilizing robust partnerships to ensure coordinated and effective results. This broad participation helped create a framework that reflects a consensus on the importance of standards and technical regulations in Ukraine's reconstruction process.

This strategic approach outlines the path from current conditions to desired outcomes, identifies key stakeholder roles, defines milestones, and integrates standards and technical regulations within the broader National Quality Infrastructure context. The roadmap serves multiple purposes: guiding reconstruction efforts, enhancing market integration, and supporting broader development objectives. By following this roadmap, Ukraine can rebuild its infrastructure in a manner that is resilient, sustainable, and harmonized with global best practices and EU green transition goals, positioning the country for long-term sustainable growth and improved market access.

The six stages of developing a NGF for Ukraine's Green Reconstruction are:

- 1 Preparing the Ground:** Identify key stakeholders and inventory existing standards and regulations relevant to green reconstruction goals.
- 2 Governance and Agenda-Setting:** Conduct impact assessments on sustainability principles and engage stakeholders through awareness-raising activities.
- 3 Establishment of an Alliance for Green Reconstruction:** Create a collaborative platform bringing together national and international stakeholders to align efforts with global sustainability best practices.
- 4 Drafting the NGF:** Prepare a foundational document for green reconstruction standards and regulations, circulating it for stakeholder feedback.
- 5 Stakeholder Consultations and Consensus Building:** Hold consultations to refine the framework and secure approval from key ministries and relevant stakeholders.
- 6 Publication and Implementation:** Officially publish the framework, begin implementation, and provide capacity-building efforts to ensure effective application of the standards.

This roadmap aligns with the concept of a [Platform for Action on the Green Recovery of Ukraine](#), which aims to promote a systemic and coordinated approach to green recovery. It also supports the principles of participatory democracy and "build back better and greener" emphasized in the policy paper on post-war green reconstruction of Ukraine.

## Impact assessment

The Impact Assessment on the Use of Standards and Technical Regulations for the Green Reconstruction of Ukraine evaluates the potential benefits and challenges of integrating sustainability principles into the national construction sector. This assessment comes in the context of widespread destruction caused by the ongoing war, presenting a unique opportunity for a green recovery.

The green reconstruction of Ukraine presents a unique opportunity for a holistic approach that integrates sustainability across multiple sectors, including climate, environment, energy, transport, industry, and finance. This transition, far from being an economic burden, offers significant potential for growth, innovation, and job creation. The reconstruction effort goes beyond merely repairing war damage; it encompasses a comprehensive upgrade of existing infrastructure to meet modern sustainability standards. By focusing on sustainable construction practices and materials, Ukraine can align itself with EU priorities, particularly in reducing CO<sub>2</sub> emissions from buildings. This approach not only addresses immediate reconstruction needs but also positions Ukraine for long-term economic resilience and environmental sustainability, in harmony with global climate goals and EU best practices.

## The assessment outlines potential impacts:

- Residential buildings:** potential energy saving  $\approx 180$  TWh/y, CO<sub>2</sub> emissions reduction  $\approx 55$  Mtoe, total investment cost  $\approx \text{€}67$  billion;
- Construction products (cement and concrete):** potential energy saving  $\approx 5$  GWh/y, CO<sub>2</sub> emissions reduction  $\approx 2$  Mtoe, total investment cost  $\approx \text{€}0.02$  billion;
- Renewable energy:** current capacity = 9.6 GW, potential capacity  $\approx 875$  GW, total investment cost  $\approx \text{€}1$  trillion.

*By prioritizing sustainability and carbon neutrality in its reconstruction efforts, Ukraine can contribute to global climate goals, align with EU best practices, and position itself to benefit from emerging green technologies and financing opportunities.*



## Raising awareness and engagement actions

The NGF has been developed through a participatory process involving various stakeholders, all working towards the common goal to contribute building a sustainable future for Ukraine. Creating platforms to share best practices, strengthening linkages among stakeholders, and raising awareness on opportunities for collaboration resulted being pivotal for the good implementation of the framework. This approach not only encouraged mutual learning but also enhances the overall effectiveness of the framework.



To foster collaboration, share knowledge, and engage stakeholders across multiple levels, a series of workshops have been organized. These workshops **have brought together 600 stakeholders**, including policymakers, international organizations, quality infrastructure institutions, associations, and the private sector, to explore the critical components of green reconstruction.

### ► **Workshop 1 – Role of Standards and Technical Regulations for Green Reconstruction**

This inaugural session highlighted the importance of establishing and adhering to sustainability standards and technical regulations as fundamental pillars for green reconstruction.

### ► **Workshop 2 – Role of Public Procurement for Green Reconstruction**

Focusing on the strategic role of public procurement, this workshop explored how governments and public entities can drive the transition to a greener economy by embedding sustainability into procurement policies and practices.

### ► **Workshop 3 – Standards for Designing Sustainable Infrastructure**

This session examined the key standards necessary for designing infrastructure that not only meets the needs of today but also contributes to long-term environmental sustainability and resilience.

### ► **Workshop 4 – Conformity Assessment and Market Surveillance**

Concluding the series, this workshop addressed the importance of conformity assessments and market surveillance mechanisms to ensure that green standards are effectively implemented and adhered to in reconstruction projects.

## Engagement of Municipalities

Reconstruction efforts in Ukraine will be primarily carried out at the municipal level, where local governments are tasked with rebuilding and restoring vital infrastructure, thus ensuring long-term resilience. Given the central role municipalities play in this process, it is essential to raise awareness among local actors on both their responsibility to build sustainably and the opportunity to be supported throughout this path, for the well-being of their communities and future generations.

To support this, UNIDO partners with key municipal stakeholders in Ukraine, including the Association of Ukrainian Cities, All-Ukrainian **Association of United Territorial Communities and the Association of Small Cities of Ukraine**. These collaborations are designed to empower municipalities with the knowledge and tools they need to incorporate sustainability into their reconstruction activities.



A **special workshop on Role of municipalities in the green reconstruction of Ukraine** has been organized to facilitate discussions between local governments and international and national experts, providing a platform to share insights and best practices for sustainable urban and rural reconstruction. UNIDO also conducted a comprehensive assessment among Ukrainian municipalities – from large cities to small towns – to establish a direct dialogue with local authorities. The assessment has been instrumental in identifying the specific needs and support that municipalities require to build sustainably. Capturing the diverse perspectives and challenges faced by municipalities across Ukraine, is essential to tailor solutions that address both their immediate and long-term needs.

*Strengthening the capacity of municipalities to lead sustainable reconstruction initiatives ensures that the reconstruction process contributes to a more resilient, sustainable, and equitable future for all Ukrainian communities.*

# Moving to action



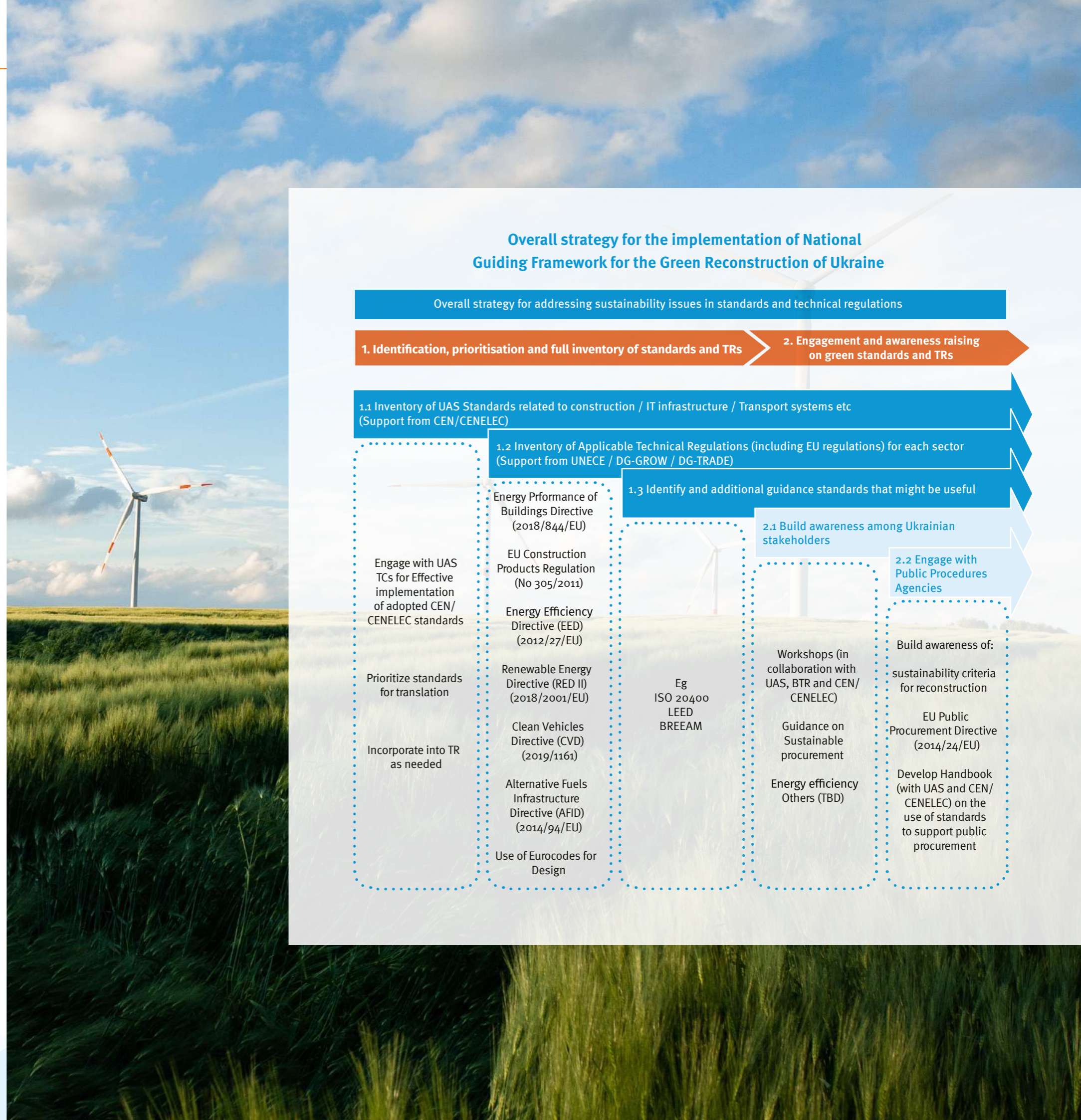
## Implementation Plan

In order to transform the theoretical foundation, set by the NGF into concrete actions and guide stakeholders on how to effectively use standards and technical regulations for the green reconstruction of Ukraine, a detailed **Implementation Plan** has been designed. This plan serves as bridge towards on-the-ground actions that will shape Ukraine's post-war recovery efforts.

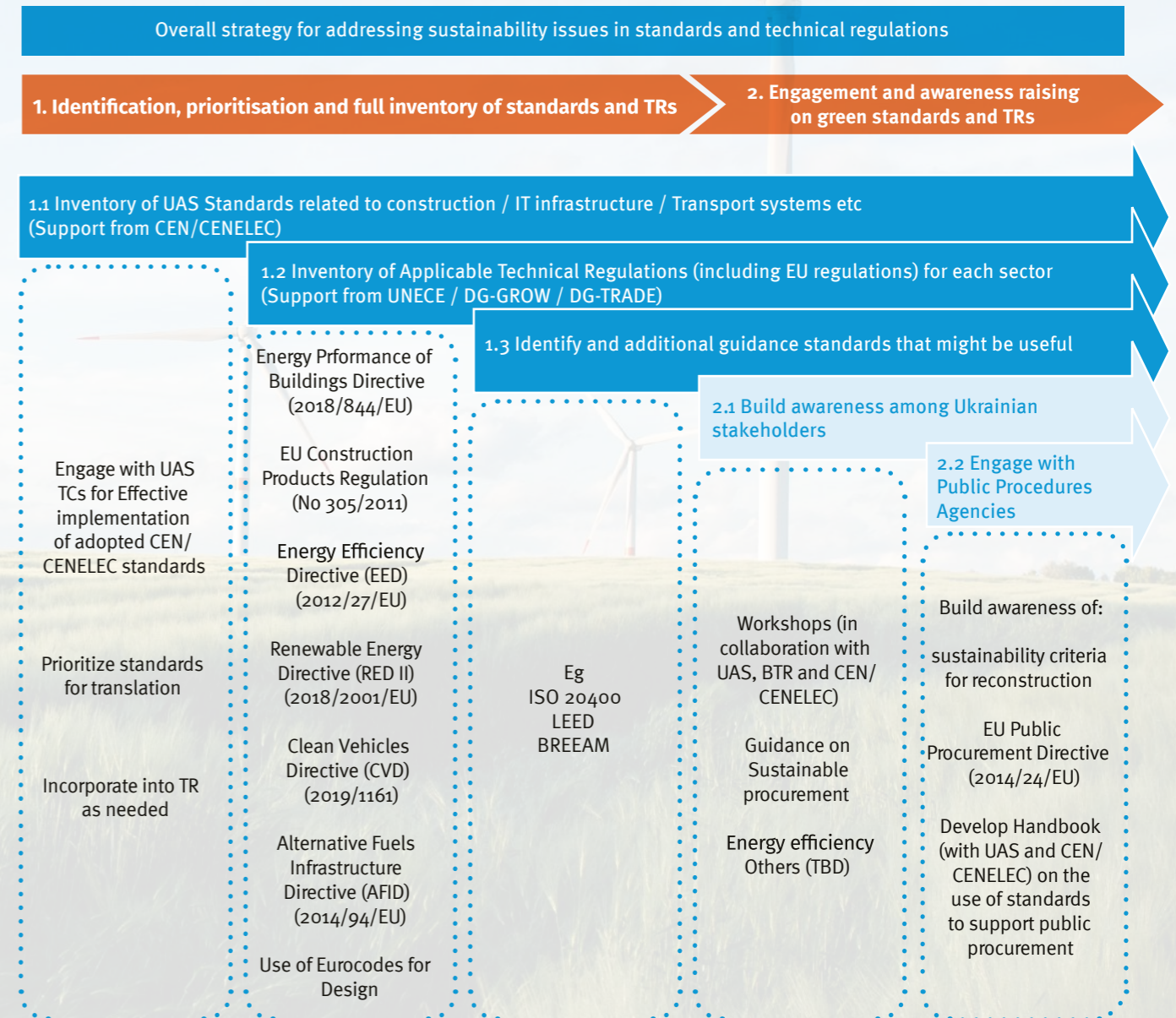
The Implementation Plan has been designed to strengthen Ukraine's Quality Infrastructure System – focusing on the promotion of standards and the guidance on technical regulations in post-war reconstruction projects. The plan outlines a practical framework for **embedding sustainability into the design, planning, and execution of reconstruction initiatives**. Through this approach, Ukraine can rebuild its war-damaged infrastructure, and also lay the foundation for a resilient, sustainable economy that will thrive in the face of global challenges.

The urgency of adopting sustainable practices is reinforced by growing global awareness of climate change impacts. Over the past few years, international expertise in areas such as circular economy, carbon neutrality, and decarbonization has been consolidated into globally recognized standards. These standards, when integrated into national technical regulations, become powerful tools that define the specifications for public and private investments, public procurement, service operations, and management.

*By following the Implementation Plan, Ukraine can unlock the full potential of its green reconstruction efforts, ensuring that the country emerges from the crisis stronger, more sustainable, and better integrated into the global economy. This plan is not merely a technical document but a strategic tool for transforming Ukraine's recovery into a model of sustainable development for the future.*



## Overall strategy for the implementation of National Guiding Framework for the Green Reconstruction of Ukraine



## Building capacity for impact

In order to enhance the technical capacity of Ukrainian stakeholders in the adoption and application of standards and technical regulations a **training program** has been designed allow sustainable reconstruction and renewal of buildings and infrastructure across the Country. The primary goal of this training is to professionalize the knowledge of key Ukrainian stakeholders in the fields of technical regulations and standards crucial for green reconstruction, focusing on construction, transport, and energy sectors.

The training is designed for both public and private- sector professionals engaged in the reconstruction process or those shaping policies and procurement processes, among others, municipal technical experts (engineers, architects, urban planners), policymakers and officials responsible for developing tenders for construction-related goods and services, and private sector professionals seeking to adopt and implement advanced and sustainable building practices. In addition to the comprehensive training program, **technical workshops** on highly specific sectoral areas complemented the capacitation effort. A technical exchange on sustainable water management – one of the key priority areas identified – marked the first initiative in this respect, representing a platform for sharing concrete examples of best practices and innovative solutions that can be applied in the context of post-conflict reconstruction.

*Enhancing Ukraine's expertise through capacity building initiatives, including trainings, technical workshops, and best practice exchanges, will lay the groundwork for successful green reconstruction pilot projects. This approach will empower Ukraine to lead innovative and sustainable rebuilding efforts, ensuring that the reconstruction process is driven by cutting-edge knowledge and environmentally conscious practices. By transforming learned insights into tangible pilot initiatives, Ukraine can develop the necessary skills and experience to shape a reconstruction effort that prioritizes both innovation and sustainability.*





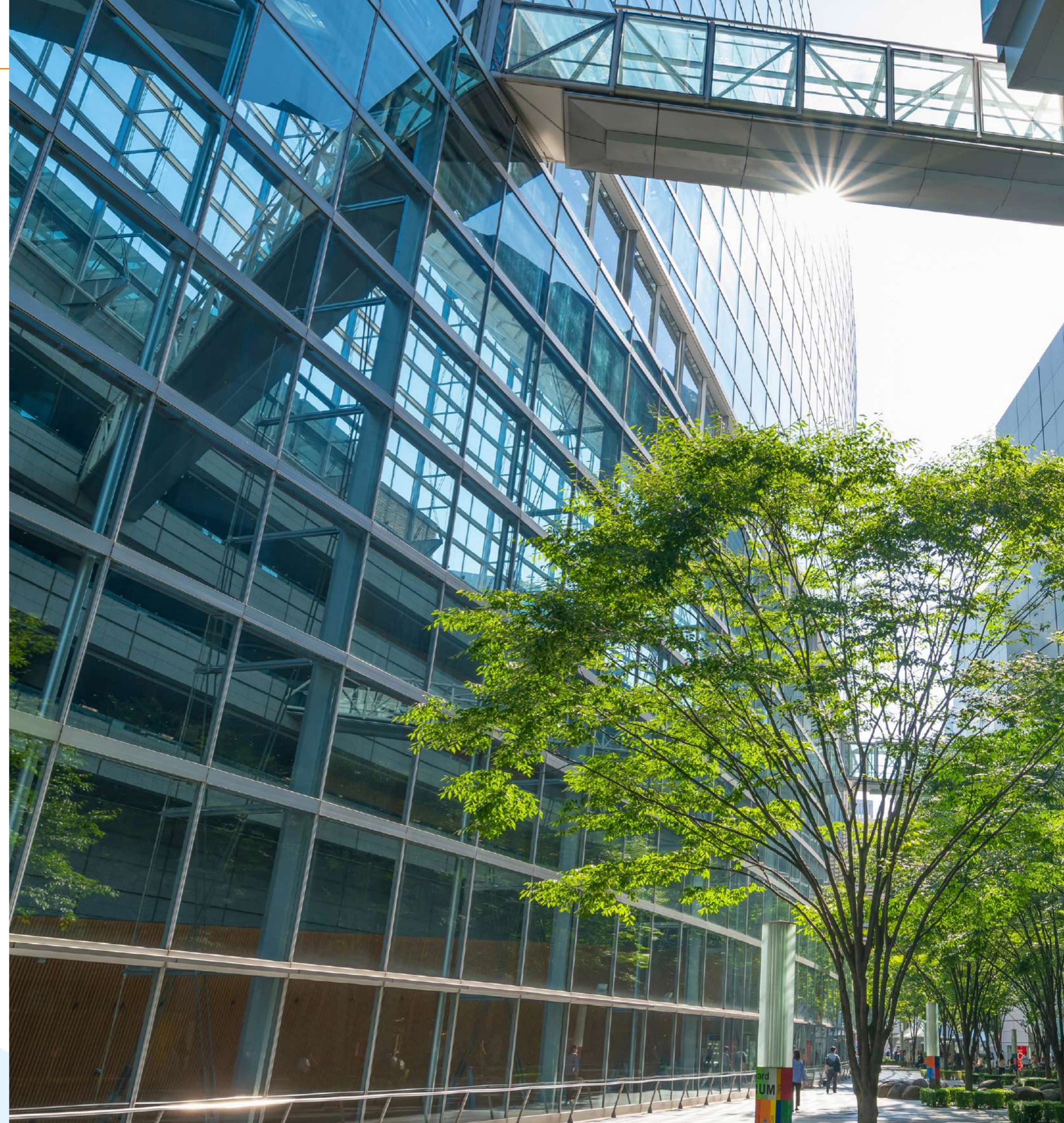
# The way forward



Ukraine's green reconstruction journey has progressed through several crucial phases, each contributing to a vision of a sustainable and resilient future. The process began with a comprehensive roadmap and impact assessment, identifying urgent needs and opportunities for incorporating environmental sustainability into reconstruction efforts. This was followed by stakeholder awareness campaigns emphasizing the importance of adhering to international standards, which led to the development of the National Guiding Framework (NGF).


*A key component in realizing the NGF's objectives is building the capacity of local actors. UNIDO is committed to empowering Ukrainian institutions, companies, and professionals with the knowledge and skills necessary to leverage international standards and technical regulations for concrete reconstruction efforts and large-scale innovative projects. The organization maintains a flexible approach to interventions, adapting to Ukraine's dynamic context.*

Collaboration between national and international stakeholders will provide crucial support in addressing emerging needs and challenges. The success of Ukraine's green reconstruction ultimately depends on the strategic application of international standards, the empowerment of local actors to drive change, and robust partnerships. The NGF serves as a vital tool in ensuring an effective and forward-looking rebuilding process.




# Resources

### National Guiding Framework




**PUBLICATION  
IN ENGLISH**




**PUBLICATION  
IN UKRAINIAN**

### Implementation Plan




**PUBLICATION  
IN ENGLISH**




**PUBLICATION  
IN UKRAINIAN**

### Impact Assessment



**PUBLICATION  
IN ENGLISH**



**PUBLICATION  
IN UKRAINIAN**

## Workshop series on Green Reconstruction of Ukraine

### Workshop 1 (13 June 2023): The Role of Sustainability Standards and Technical Regulations



**REPORT IN ENGLISH**

**RECORDINGS IN ENGLISH**



**REPORT IN UKRAINIAN**

### Workshop 2 (25 July 2023): The Role of Public Procurement



**REPORT IN ENGLISH**

**RECORDINGS IN ENGLISH**



**REPORT IN UKRAINIAN**

**RECORDINGS IN UKRAINIAN**

### Workshop 3 (08 September 2023): Standards for Designing Sustainable Infrastructure



**REPORT IN ENGLISH**

**RECORDINGS IN ENGLISH**



**REPORT IN UKRAINIAN**

**RECORDINGS IN UKRAINIAN**

### Workshop 4 (28 September 2023): Conformity Assessment and Market Surveillance



**REPORT IN ENGLISH**



**REPORT IN UKRAINIAN**

**RECORDINGS IN UKRAINIAN**

### Workshop 5 (24 January 2024): Role of Municipalities



**REPORT IN ENGLISH**



**REPORT IN UKRAINIAN**



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