



**COMMUNICATION ON ENGAGEMENT (COE)**

National Institute of Chemistry

**Period covered by this Communication on Engagement**

From 2022 to 2023

**Part I. Statement of the Continued Support by the Chef Executive or Equivalent**

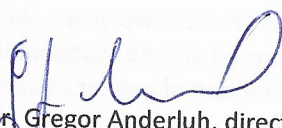
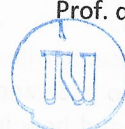
Ljubljana, January 25, 2024

I am pleased to confirm that the National Institute of Chemistry reaffirms its support to the United Nations Global Compact and its Ten principles in the areas of Human Rights, Labour, Environment and Anti-Corruption.

This is our Communication on Engagement with the United Nations Global Compact. National Institute of Chemistry is deeply committed to making the Global Compact and its principles part of the culture and strategy of our organisation. Our important aim is to constantly contribute with research projects to the sustainable development goals, gender equity, employment transparency; we also encourage the development and diffusion of environmentally friendly technologies.

In this Communication of Engagement, we describe the actions that our organization, National Institute of Chemistry has taken to support the UN Global Compact and its Principles. We also commit to share this information with our stakeholders using our primary channels of communication.

Sincerely,

  
Prof. dr. Gregor Anderluh, director  
  
KEMIJSKI INŠTITUT  
Hajdrihova 19, Ljubljana, Slovenija 1  
NATIONAL INSTITUTE OF CHEMISTRY



## Part II. Description of Actions

### ***About the National Institute of Chemistry***

The National Institute of Chemistry (NIC) is a well-established and pioneering research institution located in Ljubljana, Slovenia, Europe, renowned for its scientific excellence. Through cutting-edge research, we actively contribute to the global pool of knowledge, addressing critical societal challenges such as health, sustainable energy, climate change, circular economy, and safe food practices. Our research objectives extend the frontiers of science, generating innovative values for the benefit of society.

Facilitating the transfer of knowledge to industry, we play a pivotal role in supporting the advancement of science within society in the long run. Our commitment to scientific excellence is amplified through collaborations with leading global research institutions, groups, and individuals. We actively participate in international multidisciplinary research networks, fostering a stimulating environment that encourages young researchers to explore their curiosity and unleash their creative potential, ensuring a legacy that benefits future generations.

At the heart of our institution are inspiring working conditions that empower our employees to fulfill their professional missions. We take pride in fostering open, integrated, equitable, and inclusive interpersonal relationships, free from limitations based on gender or race. As we strive to attract excellent Slovenian scientists back from abroad, our mission is a testament to our dedication to societal well-being, setting a standard of excellence.

Being a key player in the Slovenian and international innovation ecosystem, our impactful transfer of knowledge and technologies to industry positions us among the leading public research organizations.

***The National Institute of Chemistry has promoted the Global Compact and its principles through the following activities:***

Over the last two years, NIC, as a research institution, has undertaken numerous research initiatives centered around sustainability, environmental challenges, advocacy for eco-friendly technologies, promotion of gender equality, and the enhancement of employee-friendly work environments.

In principle, we conduct research in order to make life better for everyone. Researchers aim to improve the quality of life to each and everyone. With promoting science, research and innovation through different channels and how important it is for the social and economic development, NIC reaches to a wider public.

NIC incorporates the Global Compact principles into internal operations and implements the sustainable development goals in all projects.



NIC values are described with:

- Integrity - we are honest, sincere, and uphold moral principles. We adhere to our beliefs, do not violate ethical norms, and act fairly towards ourselves and others. Our operations and management are transparent, instilling trust in the institution.
- Community (research community, family) is the foundation shaping values and relationships, transferring skills and knowledge. We are connected by a research culture and a shared past and future. We care for each other and serve as a source of support in crisis situations.
- Responsibility is key to personal and societal progress, so we create better conditions for development, collaboration, and well-being. We take on obligations and care for our actions, decisions, and relationships. We are reliable, ethical, and moral. We respect work rules and colleagues.
- Collaboration - we effectively achieve common goals, incorporating diverse ideas, opinions, and talents. We seek mutually beneficial solutions, enable learning and growth, and engage in new discoveries, innovations, and the development of new products and services. We encourage dialogue and international cooperation.
- Trust - science based on evidence and scientific integrity is our guiding principle for building successful relationships and a society founded on honesty and mutual respect.

Excellence - we push the boundaries of what is possible, using state-of-the-art equipment and knowledge to explore the unknown. This are few actions on 10 principles topics:

On promoting gender equality, science and knowledge

On the occasion of the International Day of Women and Girls in Science in 2022, we conducted a presentation on the "**Gender Equality Plan**" for our employees. This plan encompasses various measures that we have implemented and will continue to pursue, aiming to ensure equal opportunities for gender in recruitment and career advancement. In 2023, as part of the Gender Equality Council, a study was conducted concerning discrepancies related to contract type and gender in the title of "research associate." In 2023 NIC organized **lectures** from one of our best women scientists with title: "The ever-changing night sky and The sound of synthetic biology and immune response". NIC participated at the project "**Noč ima svojo moč**" (**Night has its might**) that is part of European Researcher's Night activities. Every year in June NIC organizes the "**Week of the NIC**", which includes specific scientific events and some events suitable for wider public. The National Institute of Chemistry is focused to spread the knowledge and promote education in natural science among the youth, therefore, for the third consecutive year the **Summer Research School** was successfully organised. In March 2022, we released the first episode of the podcast "**Vzeto na znanje**," where we engage in discussions with selected guests about science in general, its methods and tools, and its role in society. Additionally, we address current questions prompted by the prevailing circumstances. Episodes are released on a monthly basis.



In 2022 throughout 2023 among many others, some important projects on sustainability, environmentally friendly technologies were acquired and completed such as:

- **REDOXREC ( Recycling, Reduction, Oxidation)**  
The aim of this project is to increase the currently unsatisfactory recycling rate of this valuable waste by proposing a more extensive network of green recycling solutions based on environmentally friendly and low cost hydrometallurgical extraction technology
  
- **H<sub>2</sub>GreenTech**  
The main objective of H<sub>2</sub>GreenTech is therefore the strengthen regional cooperation in the field of hydrogen technologies through cross-border collaboration between companies, R & D centres and universities.
  
- **Alps4GreenC**  
This project contributes to creating the conditions for energy sufficiency and climate protection in the region by creating an enabling environmental for the transnational use of biomass residues. Through policy recommendations and pilot green carbon production, the project explores options for biomass conversion and proposes transnational value chains based on biochar. This first transnational collaboration to create a value chain for biochar production will identify and improve appropriate technologies for biomass conversion and the transition to green, post-carbon approaches.
  
- **BIZEOLCAT (Zeolite-based bifunctional catalysts and innovative process for sustainable hydrocarbon conversion)**  
The main objective is to produce light olefins and aromatics from light hydrocarbons (C<sub>1</sub>, C<sub>3</sub> and C<sub>4</sub>) through the implementation of new processes involving innovative catalyst synthesis methodologies and novel reactor design and conversion and to demonstrate their improved sustainability and economic scalability in existing industrial processes.
  
- **CARBIOW (Carbon neutral biofuels from organic waste)**  
This project focus on the green transition and the circular economy by proposing new technologies that cover the whole process of converting organic waste into biofuels.
  
- **GREEN-LOOP (Sustainable Production Systems for New Biological Materials)**  
Green-loop looks at new solutions based on bio-based materials and addresses the issue from a circular economy thinking perspective to overcome barriers to new production tools, energy efficiency improvements and sustainable value chains. The main objective is to design and optimise 3 innovative bio-based materials and components for the following industrial sectors: construction, packaging, food and beverage, appliances and tools.

Disseminating the key findings from the mentioned above joint research reports and other research outcomes through invited events and lectures, media briefings, round tables and articles, through shared knowledge with young researchers and wider audience is how the institute promotes the Global Compact principles.



#### On work environment and employee:

Based on the suggestions obtained from employees in a comprehensive survey on employee satisfaction conducted at the end of 2021, we formulated an action plan. This plan also integrates improvement proposals received through other channels that allow employees to express their opinions and satisfaction. The plan was successfully executed in 2023.

Furthermore, we established an online platform for submitting suggestions and ideas from employees, actively monitoring and responding to them, while providing concise reports for employees.

Towards the end of 2023, we conducted an extensive study on employee satisfaction at the institute, enabling employees to express their opinions on working conditions. The survey was carried out by external independent experts. Through this research, we gained insights into areas that require improvement according to our colleagues' opinions. The survey highlighted certain shortcomings in the organization of work at the institute, offering valuable guidance for enhancing working conditions. In the future, we will intensify our efforts to develop and facilitate research careers. Nevertheless, it is essential to emphasize that employees are content with the working environment, and work motivation is exceptionally high, providing a positive outlook.

With the aim of designing a new Workplace Health Promotion program, we conducted a survey among employees at the end of 2023. This survey provided us with valuable information on how to further improve and tailor the program to the preferences of the employees.

#### Achieved certificates and acknowledgement:

The National Institute of Chemistry is also a proud holder of several certificates that mean recognition on several fields of work. The Slovenian Institute of Quality and Metrology -SIQ Ljubljana awarded a certificate for the management system in accordance with the ISO 9001. The scope of the certificate includes research, education and the provision of services in the field analytical and food chemistry, environmental protection, inorganic and organic materials and technologies as well as support processes that enable the functioning of the primary processes. We also maintained the GMP certificate, awarded by the Public Agency for Medicinal Products and Medical Devices of the Republic of Slovenia and a certificate for performing accreditation activity from Slovenian Accreditation. NIC also maintains the Family Friendly Enterprise certificate, which includes measure in the field of the reconciliation of working and family life. We are proud to have acquired the "Health-Friendly Organization" certificate at the end of 2021, which we actively uphold through the activities outlined in the workplace health promotion plan. We believe that offering sports activities and health education positively influences employee satisfaction and motivation in the workplace.

From year 2020, the institute is also in a process of obtaining HR Excellence certificate - The European Commission recognises with the 'HR Excellence in Research Award' the institutions, which make progress in aligning their human resources policies to the 40 principles of the Charter & Code, based on a customized action plan/HR strategy.



### Part III. Measurement of Outcomes

As a result of the above-mentioned activities the institute has contributed to the increased recognition of the Global compact 10 principles among researchers and beyond several outcomes witnessed so far, including:

- increased media coverage on the key findings from research
- increased numbers of conferences and networking
- increased numbers of (online) symposiums, events and lectures
- promoting principles in brochures and promotional material.

The institute actively advocates for the integration of the 10 Global Compact principles into its daily operations, implemented through various projects, programs, and the promotion of these principles in the realms of science, human resource relations, and international collaboration. Corporate sustainability stands as a fundamental value at NIC and is robustly manifested in its activities and exemplary practices, shaping the corporate atmosphere and culture. By embedding the Ten Principles of the UN Global Compact into our strategies, policies, and procedures, and fostering a culture of integrity, we recognize that we are not merely fulfilling our essential obligations to people and the planet, but also paving the way for sustained long-term success.