KONČAR
ELECTRICAL ENGINEERING INSTITUTE

Sustainability Report

2022

Content

LETTER FROM THE MANAGEMENT

GRI 2-22

Looking back at the period behind us, we are mostly satisfied with the results, considering all the challenges we faced during the 2022 fiscal year. After two years in which mobility of people and goods was very restricted due to the pandemic, a new threat arose, i.e. the war in Ukraine, which continues to endanger the world peace to this day. In the business world, these events led to a surge in prices of important components, an increase in energy costs and to the closure of some important markets.

Despite the difficulties, we have achieved better results than in 2021, and exceeded our business plans. Our revenue was €13.55 million, which is an 8.8% increase compared to 2021, and 16.8% over the business plan. Sales increased by 10% thanks to the income incurred from the KONČAR Group, while income from other Croatian businesses and from export decreased compared to 2021. Laboratory HV equipment testing, and transformer and bushings monitoring systems were the most important export products and services. Good results were also achieved with machine condition monitoring systems and development services within the field of functional safety computer systems.

The construction work on the new multipurpose building LAVESP – Laboratory for Power Systems and Drives, supported by the Ministry of Economy and Sustainable Development, was completed in 2022. This was the largest investment in laboratory infrastructure since 1971, amounting to €8.53 million of the Institute's own funds. LAVESP is extremely important for the continuity and development of HV equipment testing, and its specifications equal those of the world's renowned laboratories.

In 2022, the Laboratory Center (LC) and SCERT – Certification Service increased the number of accredited testing and certification methods for conductors, cables and accessories, as well as for other power equipment and products. The Laboratory Center's expansion of accreditation and capacity increase was recognized by the Dubai Electricity & Water Authority (DEWA), which included LC on the list of approved laboratories.

During the past year, activities on four strategic research projects started. Projects are financially supported through the KONČAR 2020+ Integrated Strategy. The application of this model is expected to result in larger investments in the development of new products and technologies, development of new competencies, job creation, as well as long-term stability and sustainable development of the entire Group.

During 2022, the Digital Factory Lab (DFL) – a center for digitalization technologies led by the Institute – continued its activities. The project offers an opportunity for additional horizontal connections between the Group companies, growth of new competencies and better

collaboration with suppliers and stakeholders from the academic and business communities.

With an aim of better profitability management, the organization of the Institute changed on January 1, 2023, and it now contains two business units: The Laboratory Center and Digital Platforms and Systems. The objective of the restructuring was to optimize potential and competencies of employees, as well as to expand the Institute's R&D and testing capabilities.

We have not neglected our responsibilities to the community, customers, employees, and other stakeholders and have therefore integrated the concept of sustainable operations both in our long-term strategy, as well as in daily activities. The sustainable management model works to enhance the established concepts of employee training and education in the areas of leadership and personal career development, but also introduces some new activities for building workplace community and team cohesion. We are also planning some additional employee training programs to help retain current employees and develop strategic competencies. With economic security and stimulating working environment, they are encouraged to participate in scientific and professional training as a prerequisite for the creation of innovative technical solutions that can compete in the global market.

Long-term success of the Institute requires modern business operations that produce stable financial and market results, foster employees' lifelong learning, equipment and laboratory investments, and provide key support for products and services development of the KONČAR Group companies in the power engineering and transport industry. The Institute has a key role in KONČAR's corporate development, since it not only initiates the Group's new production programs, but also helps innovate the existing solutions.

The holistic approach and the integration of sustainability principles in the Institute's operations are also reflected in ongoing improvements to the reporting process. By switching to GRI standards (General disclosures 2021), the quality of the reports has increased, and the Institute fortified its commitment to continuous care for stakeholders' needs.

Pushing the boundaries in creating innovative and advanced technologies, continuously investing in employees, decreasing our environmental impact, and creating a positive social environment, these elements are the core of our sustainable operations for the times ahead.

Zagreb, June 2023

Managing Board

Siniša Marijan, PhD, President

Dalibor Filipović-Grčić, PhD, Member

Involvement of the Institute in the Implementation of UN Global Sustainable Development Goals (SDG)

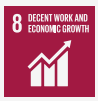
UN adopted the 2030 Agenda for Sustainable Development to end poverty in the world, ensure quality education, healthy lives, decent jobs and address key environmental challenges. We have identified seven goals closely related to the Institute's business activities, whereby we can monitor our contribution to their implementation.

We protect investments in property and primary equipment

We ensure better management of capital assets, safe and reliable risk management

Our contribution to SDGs 7, 8, 9, 11 and 12:

We are committed to the use of renewable sources and energy-efficient solutions. The Institute's contribution is related to water, sun and wind. We help modernize, monitor and diagnose vital equipment in hydro power plants, wind power plants and photovoltaic plants. We provide expert assistance in the construction of photovoltaic power plants and develop reliable vital components.



Our solutions improve resource management, reduce plant maintenance costs, and extend the lifespan of primary equipment.

By participating in R&D projects, we help build an adaptable infrastructure, promote inclusive and sustainable industrialization, and foster innovation.

Systems with functional safety requirements ensure the highest level of protection of people's lives and security of assets in work processes with a high potential risk.

Electromagnetic field monitoring system provides local communities with information about actual radiation values, thereby contributing to their safety.

Primary power equipment monitoring systems enable better management of vital components and risk management, thus contributing to a better quality of life for everyone.

We help manufacturers to have their products tested so that they can be marketed.

We assist manufacturers in assessing compliance of their products with regulations to determine their safety and reliability for the user and the environment.

Material topics: Economic performance, Indirect economic impacts

We protect the environment

By responsible management of natural resources and waste disposal in a safe and secure way we protect human health and minimize environmental impact

Our contribution to SDG 12:

We reduce the risks of premature obsolescence and product rejection through our own hardware and software platforms, helping to reduce emissions and accumulate unnecessary electronic waste.

Rational consumption of energy resources and the establishment of emission control systems in environmental constituents reduce the adverse effects to the smallest possible extent.

Material topics: Energy, Emissions of greenhouse gases, Waste

We protect people and the community

Our business activities reflect global needs and ambitions for solving complex technological challenges, protecting people and the community

Our contribution to SDGs 4, 5 and 8:

We encourage personal development and improvement of employees through professional education, foreign language learning, IT training and education for quality systems, environmental protection and occupational safety.

By exchanging knowledge and partnership, both scientific community and the Institute acquire new competencies, creating new opportunities for development and value added in the wider community.

By accepting and encouraging diversity and equal opportunities, we contribute to both organizational culture and the general goals of non-discrimination and gender equality.

Solving complex industrial challenges and participation in international and national projects encourages employment on challenging tasks and creates new desirable jobs.

Healthy and secure working environment is recognized as our greatest responsibility and contribution to creating quality jobs.

Material topics: Training and education, Community, Diversity and equal opportunities, Employment, Health and safety at work

Abbreviations used in the Report

• the Institute	KONČAR – Electrical Engineering Institute Ltd.
• the Group, KONČAR Group	KONČAR – Electrical Industry Inc. and subsidiaries
• Parent Company	KONČAR – Electrical Industry Inc.
• CSR	Corporate social responsibility
• GRI	Global Reporting Initiative
• GRI Standards	GRI Sustainability Reporting Standards
• SD	Sustainable development
• SDG	Sustainable Development Goals
• UN GC	UN Global Compact
• RDI	Research – development - innovations
• TMS	Transformer monitoring system
• MCM	System for machine condition monitoring and fault detection
• MEP	Electromagnetic field monitoring system
• TCMS	Train control and management system
• HVDC	High Voltage Direct Current
• LCC	Life Cycle Costs
• RAMS	Reliability, Availability, Maintainability, and Safety
• CENELEC	European Committee for Electrotechnical Standards
• VA	Value added
• SCERT	Certification Service
• LAVESP	Laboratory for Power Systems and Drives

The basis of our sustainable business is research, development and innovations

GENERAL DISCLOSURES

ORGANIZATIONAL DETAILS

GRI 2-1

Name of the organization:	KONČAR – Electrical Engineering Institute Ltd. for research, development, and services
Location of the headquarters:	Fallerovo šetalište 22, HR-10000 Zagreb
Legal form:	Ltd. (Limited Liability Companies)
Scale of the organization:	Medium-sized enterprises according to the classification in the Accounting Act of Croatia
Date of the registration:	12.11.2021. (restructured); 21.1.1991. (reorganized); 25.3.1961. (founded)
Number of the registration:	(Zagreb Commercial Court) MBS 080143769
VAT ID No.:	HR37724368086
Equity capital:	5.410.000 € (40.763.500 kn)
The National Classification of Activities 2007:	7219

62
years

APPLIED SCIENTIFIC RESEARCHES AND DEVELOPMENT

13.55
mil. €

OPERATING INCOME IN 2022

3

KEY BUSINESS ACTIVITIES

1

LABORATORY CENTER

≈700

ACCREDITED TEST METHODS

14
PhDs

190
employees
(on 31.12.2022)

77%
employees with high and higher education

008
No. in the Register of Scientific Organizations

16
years of the sustainability reporting

KONČAR – Electrical Engineering Institute (hereinafter: Institute) is a company engaged in research, development, testing and measurement in the areas of conversion, transmission and use of electrical energy in the power industry and transport. As one of the KONČAR Group companies the Institute is oriented towards applied research, testing and support to development projects of Group companies and offers its own solutions and services on the global market.

Laboratory tests of compliance of equipment with norms, diagnostic tests of the equipment installed in power plants and substations, supervision of their construction, are also important activities that ensure our employees a wide range of competences and direct contact with customers.

The Institute has the status of an independent company within the KONČAR Group, to which KONČAR – Electrical Industry Inc., as a 100% owner, confirms its status with the Statement of Independence of June 6, 2000, which enables independence from any influence of the owner, manufacturers or suppliers of products, and that none of them can in any form influence test or certification results.

MISSION

Through application of knowledge and state-of-the-art technologies we develop solutions for efficient energy conversion and power transmission, on the principles of Corporate Social Responsibility.

VISION

To become a globally recognizable partner in the fields of power engineering and rail vehicles, and in that way to contribute to the success of KONČAR Group.

The Institute is registered in the Register of the Scientific Organizations of the Ministry of Science and Education. At the same time, being a company specialized in applied research in electrical and mechanical engineering, it has two important roles within the KONČAR Group:

- support to further development of solutions manufactured and sold by KONČAR companies based on contracts and market principles, providing expertise and R&D testing in numerous laboratories of the Institute,
- applied research at its own expense for the development of new solutions compatible to the production program of the KONČAR Group, for which the Institute bears risks not only regarding the development but also regarding their placing on the market.

The Institute was founded on January 21, 1991 on market principles as an independent company within the KONČAR Group. It continued the work on core activities of the company Rade Končar – Elektrotehnički institut (founded in 1961): applied research and development of electrical equipment and plants.

Our fundamental values

Our values reflect our goals, priorities and convictions that guide us. By adhering to fundamental values and ethical standards we can focus on sustainability.

RELIABILITY	One of our fundamental values, inherent to all we do. It is ensured by building trust with our customers based on our correct expertise and up-to-date technical solutions
EXCELLENCE	Our goal is to constantly make improvements, plan future activities, and forecast challenges, keeping excellence, quality and sustainability
TRADITION	Decades of experience in applied research and laboratory testing are the basis for stability and success of our business in the future. There are intense investments in the development of new products and services, training of employees, and construction of new laboratories and refurbishment of the existing ones
KNOWLEDGE	Successful business is based on knowledge and skills of our employees, superior expertise, professional competence, and correct and impartial assessments
RESPONSIBILITY	We are aware of social and environmental impacts of our actions. We take greatest possible care of environmental protection, human rights and occupational health and safety

Significant changes to the organization during the reporting period

Reorganization of the Institute

A new organization of the Institute was implemented in order to best realize all potentials and competencies of the employees. From the previous three business units, the Institute was reorganized into two business units: Laboratory Center (LC) and Digital Platforms and Systems.

2020+ Integral Strategy and the implementation of the new operational model of the KONČAR Concern

Through the Integral Strategy KONČAR 2020+, which defines the main directions of development of the KONČAR Concern and openness to new technologies and business models, research and activities on 4 strategic research projects have begun:

- Embedded computer systems in the power engineering and transport
- Laboratory for electric drives and advanced networks
- Advanced materials and coupled analyses and simulations
- Advanced micro-grids in the power engineering and transport.

Completion of the LAVESP building

The construction of the new Laboratory Center LAVESP – Laboratory for Power Systems and Drives has been completed. This is a high-tech complex for type, special, research, and development testing of power and instrument transformers, circuit breakers, disconnectors and earthing switches, gas-insulated HV switchgear, bushing-type and spacing insulators, fittings for overhead lines, HV cables and high voltage direct current (HVDC) cables.

REPORTING PRACTICES

GRI 2-3 This Sustainability Report for 2022 has been prepared in accordance with GRI standards (General Disclosures 2021), in which we report on responsible government, correct and ethical business practices, environmental impact, product and service development, as well as the total economic impact and creation of added value to society. We also monitor our contribution to the achievement of the UN Global Goals for Sustainable Development in 2030 in the areas where we have the greatest impact. We also use other recognized reporting frameworks, such as the principles of the UN Global Compact.

The report contains the achieved performance in the period from January 1 to December 31, 2022. The Institute's reports have been published once a year since 2008, and include the results of the previous calendar year.

GRI 2-4 The previous report was published in May 2022, and the next is planned for May 2024.

The Institute's Managing Board is responsible for approving and revising the published data, including material topics of the organization in the Sustainability Report. Contact person for Sustainability Report and its content: Irena Šinko, Expert Assistant for CSR and Communication, isinko@koncar-institut.hr.

BUSINESS ACTIVITIES

GRI 2-6

The main activities of the Institute are research, development and testing in the fields of natural, technical and technological sciences, with orientation towards applied research, testing and support to development projects of the Group. Besides supporting the Group in power industry and transport, the Institute offers its proprietary solutions and services in the global market.

RESEARCH AND DEVELOPMENT

The Institute follows trends and invests in research in order to be the leader in application of the most advanced technologies to the production program of companies of the KONČAR Group and to improve its proprietary solutions for the global market

PROPRIETARY SOLUTIONS

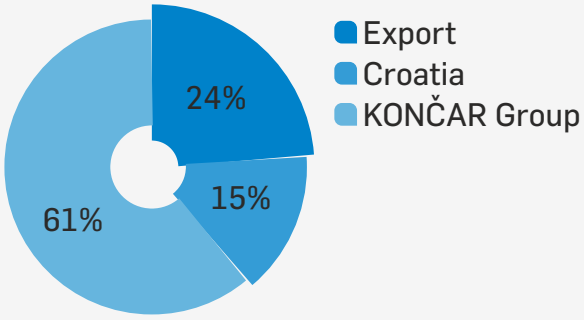
Monitoring systems for transformers, rotating machines, switchgear, and control systems for traction vehicles and power converters.

Proprietary HW/SW platforms based on long-life components (including SIL 4 solutions)

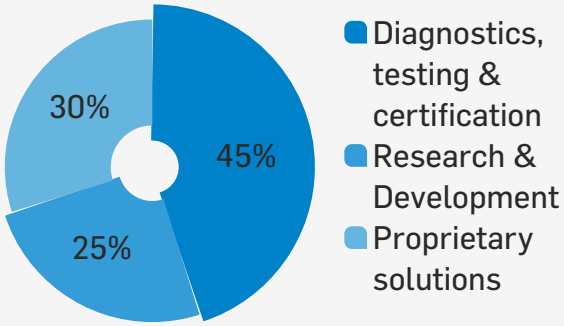
DIAGNOSTICS, TESTING, CALIBRATION AND CERTIFICATION

Compliance and diagnostic tests of the equipment installed in power plants and substations, and supervision of their construction are also important activities that ensure our employees a wide range of competences and direct contact with customers

Sales per markets 2022



Sales per key business activities 2022



The most important customers on the world market are the global companies from Sweden, Switzerland, Slovenia, the Republic of Korea, Germany, France and Pakistan.

Most important partners in R&D field are companies from KONČAR Group. Most important markets for diagnostics, testing and certification are the Croatian and EU ones. Major companies for the power systems area, telecommunications and transport are the Institute's long-time partners on the Croatian market.

Research and development

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Applied and development research is directed towards acquisition of new knowledge that helps to solve current requirements on power equipment:

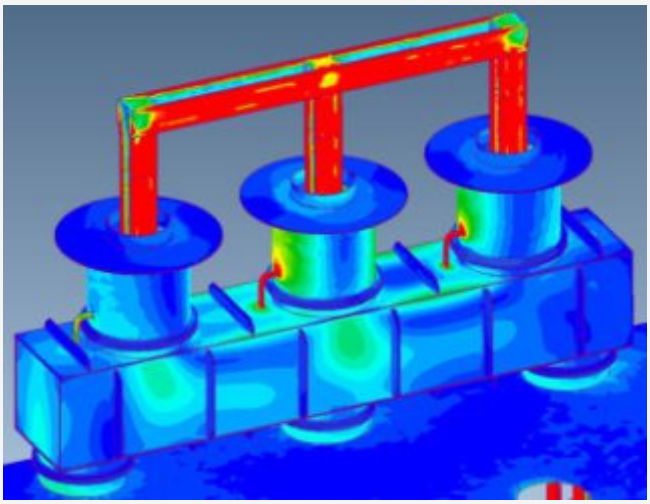
Reduction of energy consumption
losses

Increased dynamics
frequent starts, variable speeds...

Equipment condition monitoring
sensors and monitoring

Controllability of equipment
measurement of process variables

- Study of voltage conditions in the isolation system of power transformers including those for high voltage direct current (HVDC)
- Research of new environmentally friendly insulation materials
- Investigation of power and instrument transformer failures

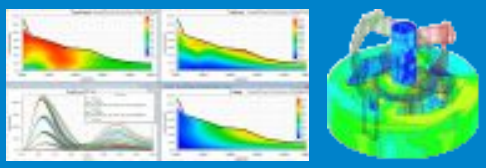


Development of a new break switch for laboratory usage

Up-to-date computation tools, simulation and physical models, and prototyping are all used to improve characteristics of standard and special purpose electrical machines

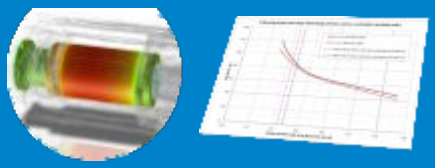
Electromagnetism

- Machine loss disposition calculations
- Specific purpose analyses
- Optimization of active machine parts



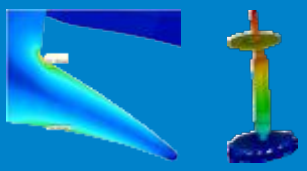
Heath transfer

- Machine temperature distribution analyses
- Computation of fluid dynamics (CFD)
- Computation of fluid dynamics (CFD)



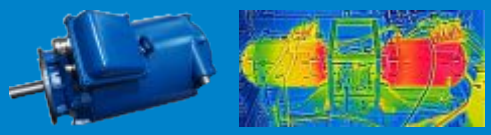
Mechanic

- Varying load vibration calculation
- Determination of material fatigue
- Stress analyses



Physical models

- Determination of precise characteristics
- Concept verification
- Prototype manufacturing



The Institute leads four strategic research projects conducted under the KONČAR 2020+ Integrated Strategy:

Embedded computer systems in the power engineering and transport

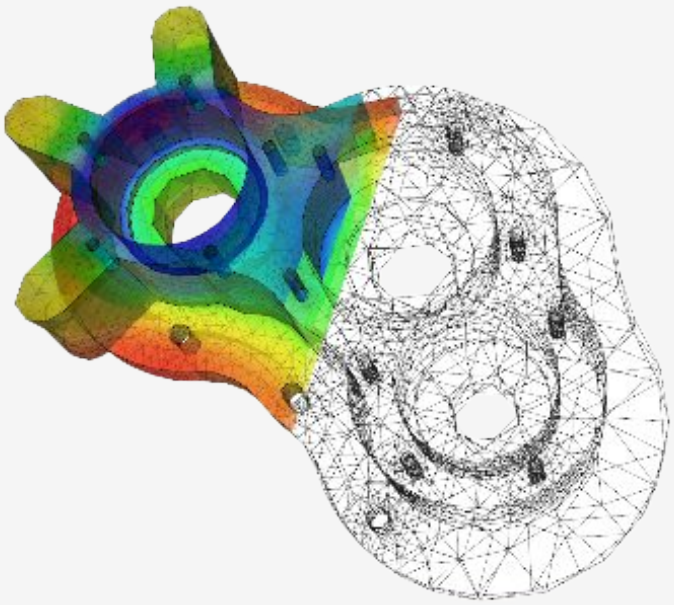
The strategic goal of the project is to apply advanced digital technologies and establish the strategic area of Embedded Computer Systems (ECS) in the power engineering and transport. Planned research will result in competencies and know-how required for the digitalization of KONČAR's manufactory program and the development of a common ECS platform.

Laboratory for electric drives and advanced networks

The strategic goal of the project is to set up a laboratory for advanced networks with *Power Hardware-in the loop* (P-HIL) real-time testing environment and build a laboratory for testing electrical motor drives for battery and hybrid trains. The laboratory will also serve as the basis on which to build testing capabilities for the power industry and transport products (converters, batteries, charging stations, motors, and system components for the production and utilization of hydrogen).

Advanced materials and coupled analyses and simulations

The strategic goal of the project is to set up a platform for testing the existing and for researching and applying new materials, as well as a platform to build and apply numeric models for the optimization of product design. The plan is to build a complementary knowledge base for the Group, provide a support environment for multi-disciplinary teams of experts, and increase KONČAR's visibility in expert and science fields.



Advanced microgrids in the power engineering and transport

The strategic goal of the project is to build competencies and know-how to support other companies within KONČAR using renewable energy, especially hydrogen technology combined with solar and wind energy, in the power engineering and railway vehicle industries. Another objective is to build a laboratory model of a micro-grid, which will enable research of physical phenomena and requirements for micro-grid components and solutions.

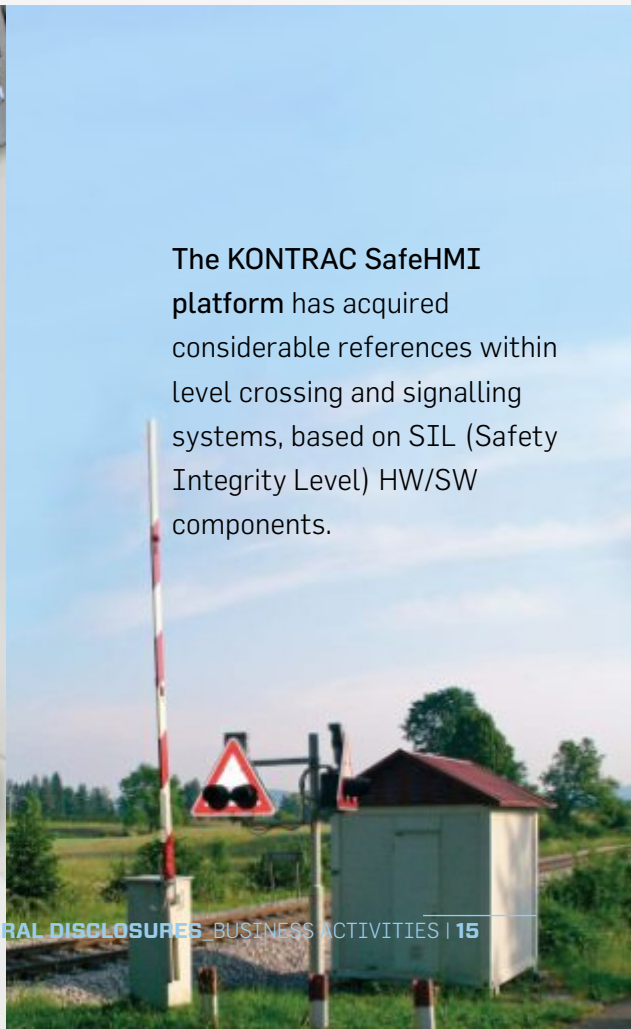
Systems with Functional Safety requirements

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

Systems with functional safety requirements ensure the highest level of protection of people's lives and security of assets in work processes with a high potential risk.

We are specialized in embedded control solutions according to the functional safety requirements for railways and machines, and modular solutions are adaptable for application in numerous areas of human activity.

The KONTRAC SafeHMI platform has acquired considerable references within level crossing and signalling systems, based on SIL (Safety Integrity Level) HW/SW components.



The Safety Vest System is a safety system for large-scale flexible warehouses that enables safe and efficient collaboration of humans and AGVs with heterogeneous skillsets – in the same area and at the same time.

The SVS provides a safety-related stop function for AGVs and logistics vehicles in an industrial work environment.

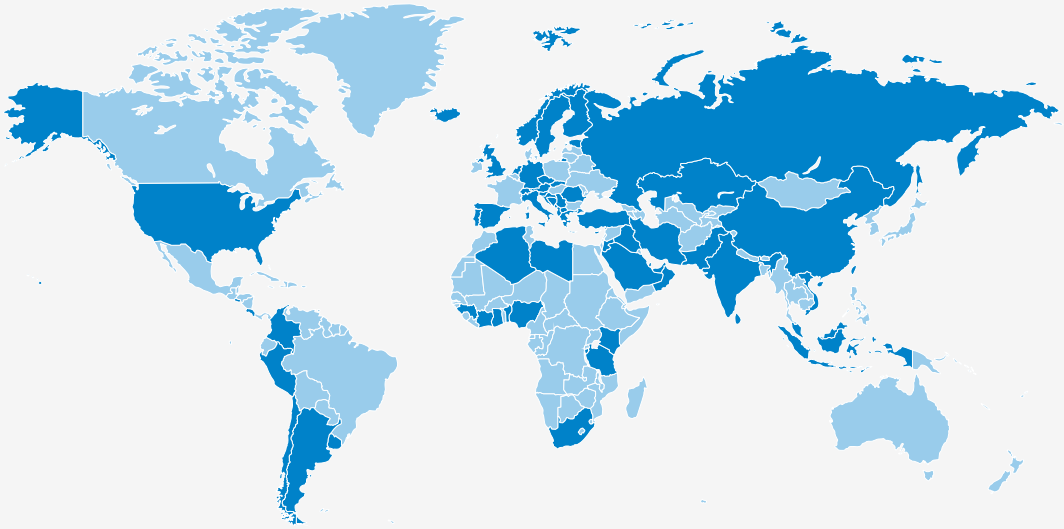
We protect investments in property and primary equipment

We ensure better management of capital assets, safe and reliable risk management

Proprietary monitoring and control systems

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

Primary power equipment monitoring systems enable better management of vital components and risk management, thus contributing to a better quality of life for everyone



750
On-Line Condition Monitoring System (OLCMS) delivered

60
countries worldwide

18
years of digitalization of EES

Transformer monitoring system – TMS

Končar TMS enables on-line monitoring and diagnostics of all vital parts of power transformers and reactors. It detects incipient faults, so that user can prevent failure by timely intervention.

TMSs MONITOR

>50.000 MVA

OF INSTALLED POWER

iPDCore - a new digital partial discharge measuring and monitoring system has been launched. The system is intended for measuring all types of power equipment: transformers, cables, generators, and motors.

Six Končar MCM systems delivered and commissioned on the tube generator of the Chashma Hydropower Plant, signifying a leap in the market

MCM for the two machines of the Nyumba Ya Mungu Hydropower Plant in Tanzania has been commissioned, which is an important reference for the African market

Systems for machine condition monitoring and fault detection – MCM

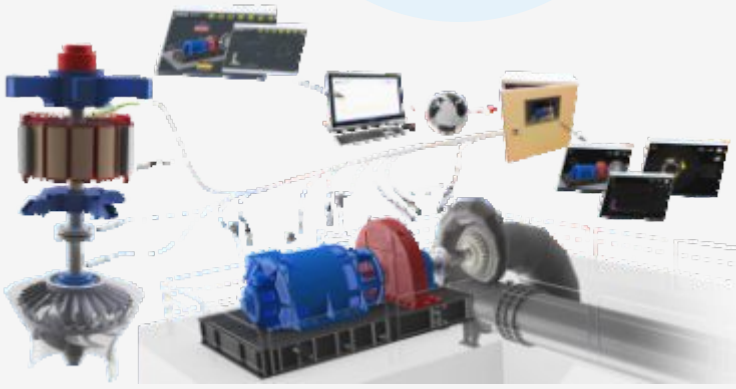
To ensure reliable operation of the Rotating electrical machines we have developed various condition monitoring systems, whose main function is early detection of possible defects and prevention of major material and financial losses.

73 %

OF CAUSES OF MACHINE FAILURES CAN BE PREVENTED BY MCM

Features of monitoring systems:

- On-line systems
- Applicable to all kinds of primary equipment
- Modular and upgradable systems
- Long-term data storage and important events tracking (trends, waveform, alarms...)
- Local and remote data access



Electromagnetic field monitoring system – MEP

11 SUSTAINABLE CITIES AND COMMUNITIES

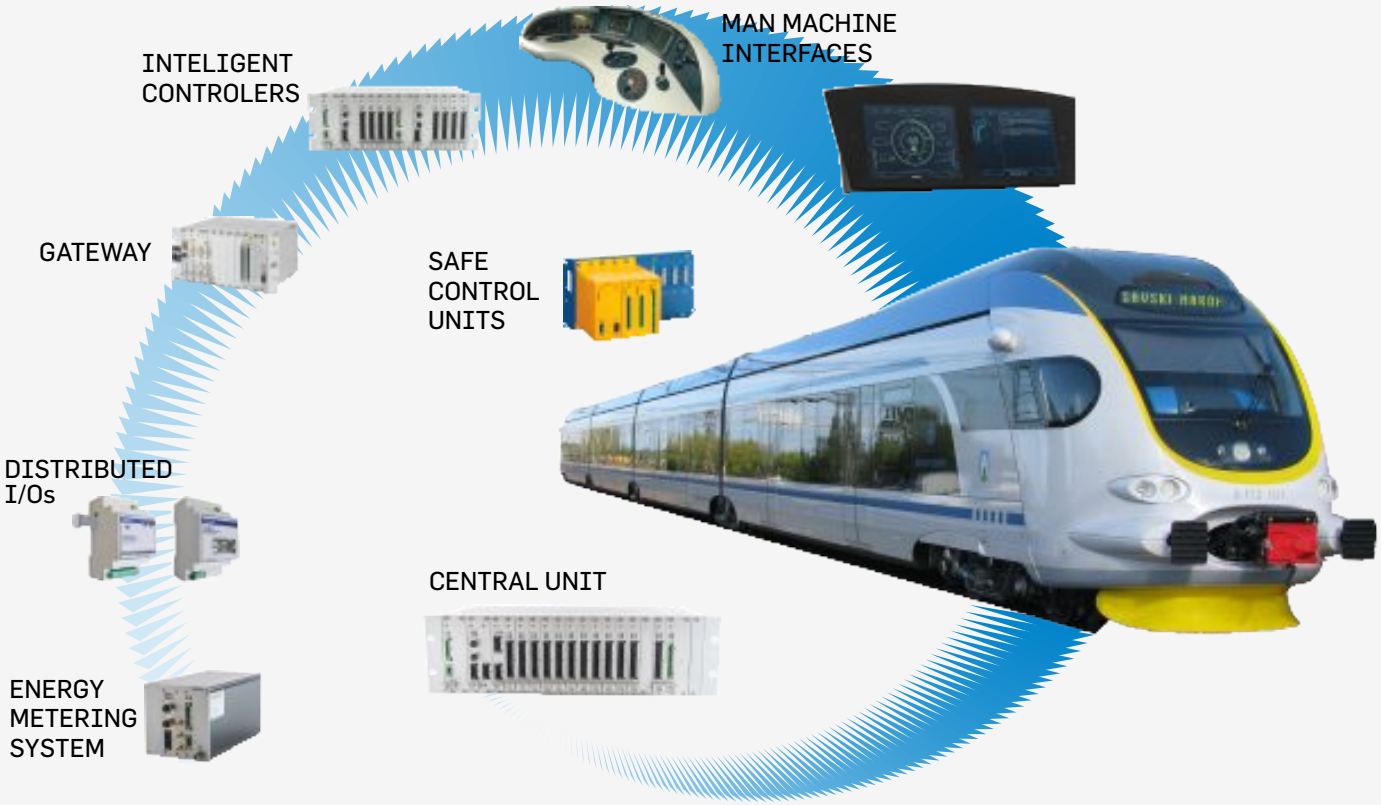
Electromagnetic field monitoring system provides local communities with information about actual radiation values, thereby contributing to their safety.

MEP is a system for continuous monitoring of electromagnetic fields radiation at all frequencies. It enables local communities insight in monitoring results, i.e. in the actual radiation values. In this way all the interested can compare actual radiation values with the levels defined in the Regulations for Protection against Electromagnetic Fields.

Train control and management system – TCMS

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

We reduce the risks of premature obsolescence and product rejection through our own hardware and software platforms, helping to reduce emissions and accumulate unnecessary electronic waste.



After successful development of embedded control systems for locomotives and trams, the Institute has developed and delivered train control and management systems for new Croatian electric and diesel trains.

The platform comprises numerous hardware and software components which enable configuration of different control systems for various purposes and of various levels of complexity.

An agreement has also been signed to deliver equipment for a prototype of a battery-powered Electric Multiple Unit (EMU) and hybrid EMU under the **"Use of green technologies in rail passenger transport"** project.

Electric motor train – new generation of embedded computing systems

The Institute has delivered train control systems for 21 Electric Multiple Units (EMU) purchased by HŽ Putnički prijevoz. Most of the equipment for this series of trains is based on the newly developed KonECS hardware and software platform that enables the configuration of industrial embedded computing systems for various applications.

7 AFFORDABLE AND CLEAN ENERGY

We are committed to the use of renewable sources and energy-efficient solutions. The Institute's contribution is related to water, sun and wind. We help modernize, monitor and diagnose vital equipment in hydro power plants, wind power plants and photovoltaic plants.

We provide expert assistance in the construction of photovoltaic power plants and develop reliable vital components.

Development of and proprietary solutions for control electronics and software for power converters.

The Institute developed the control electronics for the battery storage system to be installed in the photovoltaic power plant Vis.

Photovoltaic power plant Vis was put into operation with a large contribution from the Institute, which participated in the development and delivery of KonSol power converters. The solution enables parallel connection of several inverters and connection to the distribution network, which achieves functionality without an additional on-site substation and reduces energy conversion losses.

Diagnostics, calibration, testing and certification

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

We help manufacturers to have their products tested so that they can be marketed.

LABORATORY CENTER ACCREDITED UNDER EN ISO/IEC 17025

1 LABORATORY CENTER

8 modern equipped laboratories

HRN EN ISO/IEC 17025:2017
accredited according to a single norm

≈700 accredited test methods

11 testing areas

The unique accreditation according to the requirements of the HRN EN ISO/IEC 17025:2017 standard confirms the Laboratory Center's independence and competence in providing laboratory and field product testing services, using modern test and measurement equipment, meeting the requirements of this international standard and the needs of service users.

LC consists of eight laboratories accredited for about 700 test methods according to the requirements of international standards and technical specifications. Laboratory services are based on experts competences, quality, speed and the so-called "one-stop testing" approach.

Laboratory testing services in the following areas:

- High-voltage and low-voltage power equipment, cables and conductors included
- Material properties
- Environmental impact
- Electromagnetic compatibility
- Electrical safety
- Radio equipment
- Sources of electromagnetic fields
- Low-voltage electrical installations and lightning protection systems
- Acoustics (noise)
- Testing the physical-chemical properties of materials
- Calibration of measuring and test equipment

Checking the condition of power equipment and systems

- Diagnostics of power and instrument transformers
- Diagnostics of switchgears in HV plants
- Diagnostics of rotating machines
- Acoustic diagnosis
- Energy efficiency
- Quality of electricity
- Measurements of NF and HF fields
- Non-destructive testing (NDT)

Laboratory Center becomes a DEWA-approved testing laboratory

In 2022, the Laboratory Center received DEWA (*Dubai Electricity & Water Authority*) approval and was included in the list of laboratories approved for power equipment testing. DEWA supplies and manages the infrastructure that produces power for the city of Dubai and is renowned as one of the best utilities providers in the world. This approval opens up business opportunities for the Laboratory Center in the highly demanding UAE market.

700 turbo / hidro generators

7,000 motors

40 years of experience in testing

4,000 power transformers

40,000 instrument transformers

NOTIFIED BODY AND PRODUCT CERTIFICATION BODY (SCERT) ACCREDITED UNDER EN ISO/IEC 17065

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

We assist manufacturers in assessing compliance of their products with regulations to determine their safety and reliability for the user and the environment.

KONČAR – Electrical Engineering Institute, as a Notified Body (NB), assists manufacturers in conformity assessment and certification of their products in accordance with European standards and directives, before CE marking and placing on EU market.

In addition to conformity assessment as a Notified Body, the Institute assesses product conformity as an authorized/accredited Certification Body (SCERT) for products and processes in the areas of LV and HV equipment, corrosion or IP/IK protection, ecological design, energy labelling, welding procedures for metal materials, and signalling and traffic regulation equipment. It is also equipped for assessment of product conformity to climatic conditions and noise and vibrations.

KONČAR – Institute is a Notified Body NB 2494 of the European Commission for the following regulations:

- electromagnetic compatibility (Directive 2014/30/EU)
- noise emission in the environment by equipment for use outdoors (Directive 2000/14/EC)
- radio equipment (Directive 2014/53/EU)
- welding procedures of pressure equipment (Directive 2014/68/EC).

Accredited certification schemes of Institute enable conformity assessments and certification of products intended for markets other than EU that are made in accordance with ISO and IEC standards or manufacturer specifications.

Product conformity assessment

Well-equipped laboratories and a wide range of accreditations, authorizations and notifications of the Institute enable numerous and diverse services:

- Type testing of products in our test laboratories
- Verification of test reports issued by other laboratories
- Expert supervision of tests in external laboratories
- Assessment of completeness of technical documentation
- Conformity assessment of technical documentation
- Assessment of product design
- Type examination of products for certification purposes
- Certification
- Auditing compliance with the type of product

Certification (SCERT) and Inspection Bodies

Product Certification Body – SCERT is an independent unit within the Institute that impartially certifies products.

Inspection Body impartially inspects and calibrates power and measuring equipment used in testing electrical installations.

The Institute's Laboratory Center and Certification Service (SCERT) are accredited by the Croatian Accreditation Agency and designated by the European Commission as a notified body for important EU Directives. They are also known globally for their adaptability, expertise and one-stop testing operations. Thanks to all that, LC and SCERT have been included in the list of the world's leading laboratories, i.e. the CBTL (Certification Body Testing Laboratories) scheme, as well as the list of DEWA (Dubai Electricity & Water Authority) approved laboratories.

Supply chain

Business activities of the Institute are based on a wide scope of suppliers and business partners mostly from electrical industry, but also from numerous other fields. Code of Business Ethics is the basis on which the Institute develops its relations with suppliers, business partners and all the stakeholders. Partners in the supply chain, apart from required quality, should also observe the best of human rights and working conditions, occupational health and safety, and environmental and ethical concerns.

Because of very stringent requirements on products and services, the purchasing processes in the Institute are mostly based on agreements and contractual arrangements oriented towards quality, competitive prices, respect and integrity. Choice of suppliers is based on their professionalism and competence, and the purchasing process and choice of suppliers are implemented in an objective and transparent way.

Suppliers are selected according to the following criteria:

- technical and functional characteristics and capabilities
- proofs of quality assurance (certificates, test reports ...), instructions
- delivery time and mode of transport
- reaction speed and cooperativeness
- price and payment terms.

Providers of outsourced services are selected according to their technical capabilities and competences (references, cooperation so far). If necessary, periodic audits of suppliers are carried out to check their competencies and ensure the continuous quality of their services.

Suppliers are evaluated and approved by the laboratories. At least once a year, suppliers are re-evaluated on the basis of the same criteria and quality of their deliveries to ensure quality of the tests.

When evaluating suppliers, numeric and statistical methods can be used (e.g. grading from 1 to 5 for each criterion). This kind of assessment is recommended if there is a problem and if the supplier should improve the service or the product. In that case, the supplier is informed about the grade and need to improve.

A supplier is removed from the list if he does not meet the criteria to such an extent that it may jeopardize the quality of the work for which his service or product is intended, in particular if it could jeopardize the quality of the test or calibration or affect the customer's satisfaction.

WORKERS

Employee structure

39 average age

15 average years of service

84 % with permanent employment contracts

190 employees

37 % with 10 or less years of service

25 % female employees

14 PhDs

4 MSc degrees

77 % with high or higher education

GRI 2-7

At the end of 2022, the Institute had 190 employees, i.e. 20 associates more than at the end of 2021. The majority of employees have a high and higher education Among them, 77% have high or higher education, and perform tasks in the field of technical professions (90%), in which electrical engineering is the most represented.

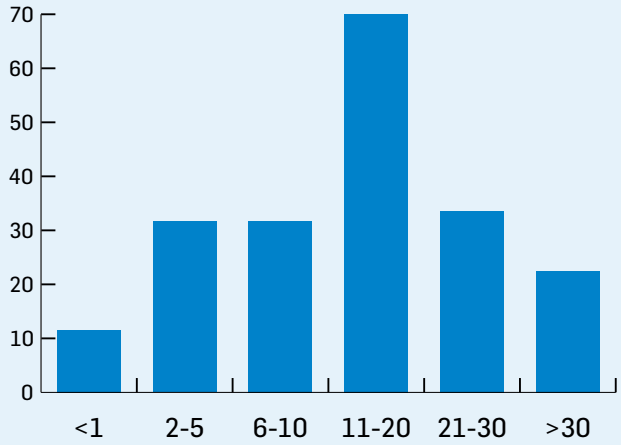
According to the type of employment contract, at the end of 2022 84% of employees had a permanent contract, 11% had a temporary contract, 6% were trainees, and 2% had a contract with special rights, obligations and fees. Also, 99% of employees worked full-time.

GRI 2-8

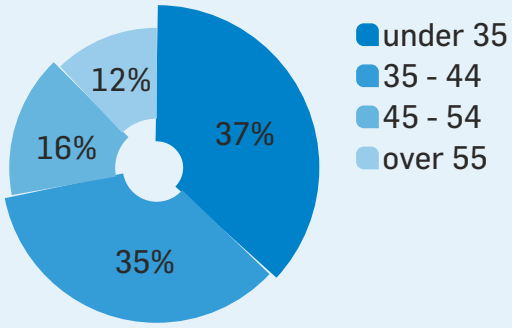
Workers who are not employees

The Institute hires few workers who are not full-time employees. These are mostly students hired for occasional work, people hired through service and authorship agreements for individual projects, and seldomly for occasional cleaning and maintenance services.

Employees by years of service



Employees per age



Employment contracts

Permanent	118	41	159
Temporary	17	4	21
Trainees	5	1	6
With special rights, obligations and fees	3	1	4
Total	**143**	**47**	**190**
From which			
Full-time employees	143	46	189
Part-time employees	-	1	1

GOVERNANCE

GRI 2-9/14

Governance structure and composition

KONČAR – Electrical Engineering Institute is a research, development, and services limited liability company fully owned by KONČAR – Electrical Industry Inc. (Parent Company). Companies within the KONČAR Group are independent legal entities.

Managing Board

The Managing Board of the company consists of one to up to three members. All Managing Board members are equal in position and status, while the Managing Board President coordinates the entire Board. The Managing Board is appointed and dismissed by the Assembly. The Assembly also decides on the number of Board members and their term, which cannot be longer than 4 years.

The Managing Board manages the business of the company in accordance to laws, the Articles of Incorporation and the Rules of Procedure. The Board is mandated to protect the company interest, which includes the interest of company members, its employees and public interest.

For some decisions previous agreement of the Assembly is required, as described in the Articles of Incorporation.

Coordination Board

The mandate of the Coordination Board is to supervise the business of the company and approve the decisions of the Assembly. The Coordination Board consists of three members appointed by the Managing Board of KONČAR – Electrical Industry Inc.

Assembly

The company Assembly consists of the only company member. The Assembly decides on financial reports, appointment and dismissal of Board members, and other issues pursuant to the Companies Act and the Articles of Incorporation.

The Assembly meets at least once a year and promptly upon determination that the company is operating with a loss.

Organizational structure

The basic organizational structure of the Institute is set down by the Managing Board and approved by the Assembly.

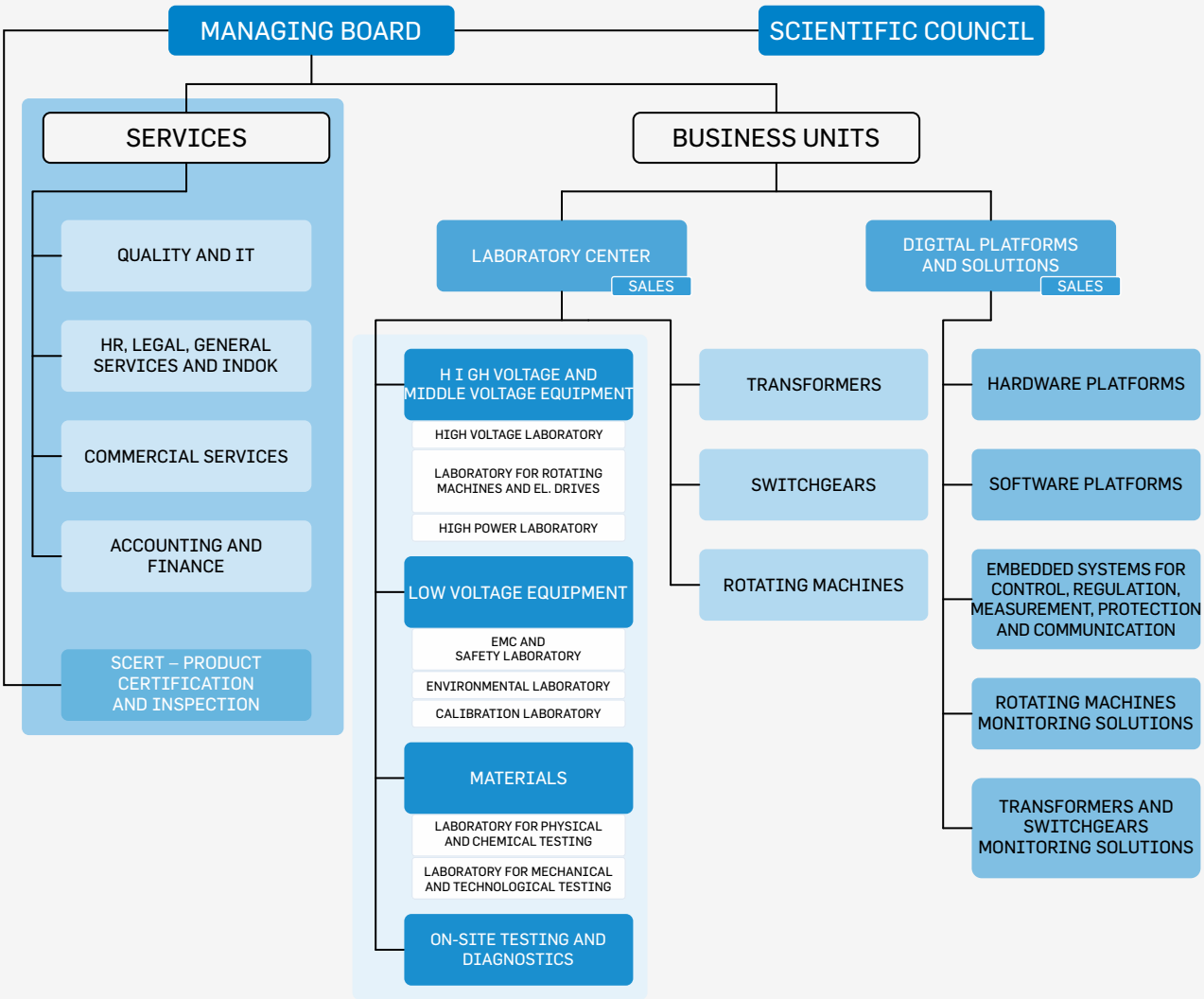
From 1st January 2023, the Institute operates according to the new organizational structure which enables an efficient way of adapting to market requirements and investing its own resources in new technologies and applied research for the purpose of developing new solutions and services.

The results of this approach are the trust of employees and customers and the creation of competitive products whose features and quality meet customers' needs.

Business units of key competencies act as profit centers, whose effectiveness is measured by newly created value and is the basis for receiving employees from the joint contribution of the unit, while the success of individuals or teams is rewarded by personal stimulation or one-time monetary reward, depending on the contribution to the operation of the Institute or creation of conditions for future successful business operations. Business activities of the Institute are carried out in business units with the support of joint services, so that rewarding the services is related to the joint success of two profit centers.

Within the Institute there is the independent, accredited Certification and Inspection Body. The work of Product Certification Service – SCERT is supervised by representatives of government bodies and consumer associations. Certification Service – SCERT is accredited under EN ISO/IEC 17065:2012 Conformity assessment – Requirements for bodies certifying products, processes and services, and the Inspection Service for Power and Measurement Equipment under EN ISO/IEC 17020:2012.

Organisational chart



STRATEGY, POLICIES AND PRACTICES

Policy of governance and social responsibility

GRI 2-22 The policy of governance and social responsibility expresses the unambiguous orientation of the Managing Board to the application of a management system based on the principles of sustainable development and social responsibility and the permanent improvement of the system.

Strategy of Sustainable Development of the Institute

- To permanently increase productivity with intensive investments in research and development of new products and services, lifelong education of employees and construction of new and modernization of existing laboratories
- To operate on the principles of sustainable development and social responsibility while developing and nurturing partnerships with all stakeholders
- To develop cooperation with the academic community
- To be an accredited scientific organization with an independent status in the KONČAR Group
- To be, according to market principles, a key support in the development of the Group's other companies.

Principles of corporate governance, standards, and norms of behavior

Within its sphere of influence, the Institute supports and implements all the measures and obligations prescribed by law and international standards for the areas of business ethics, workers' rights, occupational health and safety and environmental protection.

GRI 2-23 As a part of KONČAR Group, the Institute supports the principles of corporate management adopted by the Management and Supervisory Boards of KONČAR – Electrical Industry on 22 December 2020 concerning:

- Socially responsible management,
- Defining a procedure of corporate management based on recognizable adopted international standards, and
- Supervision of business activities

to establish high standards of corporate management and business transparency as the basis for protection of shareholders, investors and other stakeholders, and for care for workers, sustainable development and environmental protection.

Code of business ethics

The Institute is a signatory of the CODE OF BUSINESS ETHICS of the Croatian Chamber of Economy.

In our business practice, we follow the highest ethical standards, and build our reputation on expertise, trust and reliability. All employees are encouraged to follow the Code in their work and everyday activities, and the Code covers rules and procedures, guidelines for decision making and examples of potential ethical dilemmas related to business activities.

Precautionary Principle or approach

Through commitment to sustainable development strategy, the Institute is guided in its business processes by Precautionary Principle in accordance with Act on Environmental Protection and its actual capabilities. Precautionary Principle means that in case when scientific and objective evaluation indicates that there is a possible environmental or health risk, measures for its prevention are implemented although the damage is not fully certain.

Integrated management system

GRI 2-24

The market competence of the Institute and its recognizability in social community are based on the Integrated Management System which covers quality management system (ISO 9001), environmental management system (ISO 14001), occupational health and safety management system (ISO 45001), system for management of testing and calibration laboratories (EN ISO/IEC 17025), and system for management of certification bodies (EN ISO/IEC 17065).

- ISO 9001
  Quality management system (QMS) – focused on processes to meet stakeholder expectations and ensure permanent improvement

- ISO 14001
  Environmental management system (EMS) – focused on environmentally friendly activities and products with a view to improving positive environmental impact

- ISO 45001
  Occupational health and safety management system (OHSMS) – health and safety at work ensures a safe and healthy work environment for creating reliable and efficient technical solutions

- ISO/IEC 17025
  Competence of testing and calibration laboratories
  General requirements for the qualification of test and calibration laboratories carrying out tests or calibrations. The results obtained are shown in test reports or calibration certificates.

- ISO/IEC 17065 / ISO/IEC 17020
  Competence of certification and inspection bodies
  General requirements for the training, impartiality and consistency of the body carrying out the certification of the product.
  General requirements for the competence of the body conducting the inspection and for impartiality and consistency in the conduct of inspection work

- **Nuclear safety requirements** for product and service providers classified as Safety Related (SR)

Integrated management system enables the Institute to apply principles of corporate social responsibility with balanced relation to customers, employees, owners, suppliers and social community. It defines roles and responsibilities, organization and processes that are important for achievement of high level of quality of our products and services. Through such processes the Institute communicates with customers and other stakeholders, realizes products, achieves goals, learns, and makes continual improvements.

GRI 2-26 Pursuant to the Law on the Protection of Reporters of Irregularities, the Institute's management adopted the final text of the Ordinance on the Procedure for Internal Reporting of Irregularities and the Appointment of a Confidential Person which regulates; the procedure and method for appointing the reporter, the procedure and method for appointing a confidential person, the protection of the reporter of irregularities and the preservation of the received data and other important issues for reporting and protection of the reporter of irregularities.

GRI 2-27 The Institute has no recorded cases of irregularities.

GRI 2-28 Membership associations

- Croatian Academy of Engineering (HATZ)
- Croatian Business Council for Sustainable Development (HR PSOR)
- Croatian Chamber of Economy (HGK)
- Croatian Chamber of Electrical Engineers (HKIE)
- Croatian Chamber of Mechanical Engineers (HKIS)
- Croatian Exporters Association (HIZ)
- Croatian Laboratories (CROLAB)
- Croatian National Committee of the International Council on Large Electric Systems (HRO CIGRÉ)
- Croatian Standards Institute (HZN)
- Croatian Hydrogen Association – CROH2
- European Committee for Electrotechnical Standardization (CENELEC)
- International Conference on Electricity Distribution (CIRED)
- International Council on Large Electric Systems (CIGRÉ)

The Institute is a member of Croatian Business Council for Sustainable Development since 2010

Hrvatski poslovni savjet za održivi razvoj
Croatian Business Council for Sustainable Development

STAKEHOLDER ENGAGEMENT

GRI 2-29

Approach to stakeholder engagement

Internal procedures were established for recognition of particular stakeholders with which business units and services mostly interact in their everyday activities, stakeholders' requirements, frequency of interaction, way of communication, and relevance of stakeholders in regard to Institute's sustainable development.

The recognition process has three steps:

1. Identification of key stakeholders
2. Mapping stakeholders according to business impacts
3. Determination of stakeholder expectations and ways of communication

The procedure refers to the collection, storage and processing of stakeholder requirements related to their satisfaction and expectations related to the information on Institute's impacts as well as to the information provided in the previous report. The content of the report includes all the expectations, expectations and satisfaction ratings related to the topics of sustainable development, which were received from the involved stakeholders during the reporting period.

Communication with stakeholders

Internal and external communication in the Institute is continuously improved and new channels of communication are included in order to expand marketing and sales activities and include all interested stakeholders. Some of the more important means of communication and stakeholder involvement in 2022 were:

Fairs and conferences

In synergy with other companies of the KONČAR Group, the Institute participates in international and domestic specialized fairs and professional conferences. In 2022, the Group's companies participated in 7 fairs and 7 meetings, 477 m2 of exhibition space was leased, and 310 representatives from 12 companies were involved. Out of the Institute there were 32 associates present, and 14 publications (scientific, expert or referral) were published in various publications.

INMR World Congress

The Institute successfully appeared in the INMR World Congress event and exhibition, where the Laboratory Center presented its testing and calibration services, with an emphasis on complete type testing of products such as insulators, cables and accessories, optical ground wires, HV/MV equipment and transformers. The interest in our testing services has exceeded our expectations, and our stand has attracted many visitors. The LC was also included in the INMR Laboratory Guide, a portal containing the world's leading high voltage and high power testing laboratories.

Official webpages

The Institute's webpages are constantly upgraded and harmonized with new requirements, offering information on business activities, organization of the Institute, solutions and services, references and a multitude of useful data related to electrical engineering, mechanical engineering, electronics and other technical sciences. The first page was published in 1996 at www.koncar-institut.hr. In 2017 it was redesigned to enhance its technical aspects as well as the user interface. In 2016 a dedicated website was created at www.koncarmonitoring.com, for the promotion of products and services of monitoring and diagnostics of transformers and rotating machines.

Social networks

In order to increase its virtual presence and enhance communication with stakeholders, the Institute uses LinkedIn, the world's largest business network, to publish business related information, information on new projects, products and services, as well as to announce its participation in trade fairs and conferences. The KONČAR – Electrical Engineering Institute LinkedIn page (https://www.linkedin.com/company/koncar-electrical-engineering-institute-inc./) has over 9,500 followers with about five new posts published every month. In 2019 the Laboratory Center | KONČAR – Electrical Engineering Institute showcase page went live with information on services, business, and projects of the Laboratory Center (https://www.linkedin.com/showcase/laboratory-center/).

Intranet

The Institute's intranet is the central information point for employees with instructions and forms necessary for everyday work, databases of professional knowledge and norms, ordinances and other acts. The platform also contains interesting business events, as well as events related to employees, the introduction of new employees and awards and provides an overview of published scientific and professional papers of associates. Information and file management, archiving and searching, joint teamwork and creation of knowledge databases are ensured by MS Office SharePoint Server – MOSS document management system.

List of stakeholder groups

The nine key stakeholders of the Institute have been identified. Stakeholders, their needs and expectations, and the type and frequency of communication are presented in the table.

STAKEHOLDERS	STAKEHOLDER NEEDS AND EXPECTATIONS	TYPE AND FREQUENCY OF COMMUNICATION
CUSTOMERS	Quality of products and services Observing delivery times Customer relationship management and methods of complaint solving Responsible resource management Ethical principles Customer privacy	Regular meetings, workshops, consultations Professional training when necessary Solving and analysis of complaints, requests and suggestions, when necessary Annual customer satisfaction survey Fairs, conferences, gatherings Official website, e-mail (continuous) Annual visits to customers Annual Sustainability Report
EMPLOYEES	Salaries and allowances Good working environment Personal development, respect and rewarding Stabile business Occupational health and safety Training and education Non-discrimination	Annual employee satisfaction survey Training and education, continuous Intranet, continuous E-mail, continuous Annual Sustainability report
SHAREHOLDERS AND INVESTORS	Corporate business strategy Value added Sustainable business	Annual general meeting Letters, e-mail, when necessary Annual Sustainable report
SUPPLIERS AND PARTNERS	Mutual benefits and long-term relations Management systems Ethical behavior	Participation at conferences Mutual annual audits Official webpage, continuous Annual Sustainability report
LABOUR COUNCIL	Participation in management Legal compliance Freedom of association and right to collective bargaining	Regular and extraordinary meetings Notice boards, continuous Annual Sustainability report
BUSINESS AND PROFESSIONAL ASSOCIATIONS	Financial support Strengthening competences	Membership, continuous Working groups, working bodies, continuous Participation at conferences Annual Sustainability report
SCIENTIFIC COMMUNITY	Applied R&D Transfer of knowledge Joint projects	Scientific and professional papers Seminars and workshops, when necessary Participation at conferences and gatherings Joint activities Annual Sustainability report
PUBLIC ADMINISTRATION BODIES	Paying taxes, contribution and charges Compliance with laws and regulations Reporting	Working groups, continuous Letters, e-mail, continuous Official webpage, continuous Annual Sustainability report
LOCAL COMMUNITY	Investments in local initiatives Protection and rational use of resources (economic, environmental and social)	Regular visits and joint activities Donations and sponsorships Official webpage, continuous Annual Sustainability report

GRI 2-30

Collective bargaining agreements

At the end of 2022, 98.7% of employees in KONČAR were covered by the application of the KONČAR Collective Agreement. Employees who were not covered by the application of the Collective Agreement were provided with at least the same standard of rights guaranteed by the collective agreement, by the company's internal acts and decisions. In December 2022, a new round of collective negotiations began with the aim of revising the material rights of workers with a representative trade union.

The procedure for the peaceful resolution of individual labor disputes is prescribed by the Collective Agreement and the special Ordinance on conciliation in individual labor disputes.

We observe highest principles of professional ethics and good business practices

TOPIC DISCLOSURES

GRI 3

MATERIAL TOPICS

GRI 3-1

Process to determine material topics

Stakeholder inquiries, data requests and suggestions are carefully recorded to focus attention on the most important sustainability issues. We also monitor the development of the requirements of the new GRI standards in determining material topics and adaptation to the principles of double materiality. In the reporting period, data obtained through the process of determining the most important material topics of sustainability are analysed in 5 steps:

1. Identifying
2. Prioritizing issues
3. Stakeholder involvement
4. Analysis of relevance for the reporting period
5. Confirmation

The process of identifying actual and potential impacts on the economy, environment and people is part of regular activities and takes place through various mechanisms presented in the Institute's stakeholder map. The process of determining the most important material topics of sustainability includes the collection of data on topics related to sustainability, analysis of the importance of impacts, identification of priority topics and validation.

The Institute's report contains data obtained from multiple sources, including feedback from our key stakeholders, general market data and interviews with management, employees and relevant departments.

Different approaches are used to effectively understand the priorities and needs of our external and internal stakeholders (surveys, interviews, official and unofficial meetings, etc.). In order to ensure a reasonable and balanced representation of topics that show negative and positive impacts, each topic is considered separately according to its importance for the reporting period. The finally defined material topics are checked by the Management to ensure compliance with the Institute's business values and strategy.

As a result of the conducted analyses, the following topics were singled out that have a significant impact on the Institute and are of great importance to the stakeholders and were included as material.

GRI 3-2

List of material topics

Economic	Environmental	Social
• Economic performance • Indirect economic impact	• Energy • Emissions • Waste	• Employment • Occupational health and safety • Training and education • Diversity and Equal Opportunity • Communities

Restatements of information

In accordance with the Law on the introduction of the euro as the official currency in the Republic of Croatia, all amounts in this report are presented in euros.

Changes in reporting

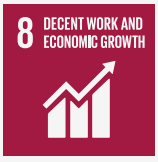
There were no changes in material topics compared to the previous report. All inquiries and requests from stakeholders in the reporting period were already included in the content. Each year material topics shall be reviewed in terms of importance and harmonized with the requests and feedback received from the stakeholders involved. Each material topic has been accompanied by Disclosures 3-3 Management of material topics.

Non-material topics

Based on the records of interests of stakeholders and the Institute, some topics were included in the Non-material topics category, because they did not have a significant impact on the economy, environment and people in the reporting period, but were part of previous reports. In order to respect the comparability of reporting and a completeness review of the Institute as a KONČAR Group, and for clarity of presentation, the content is presented as a separate category.

GRI 201

Economic performance



Our solutions improve resource management, reduce plant maintenance costs, and extend the lifespan of primary equipment.

The Institute's economic growth is based on cutting-edge R & D services, competent and well-equipped laboratories, and competitive advanced IT-based solutions. It also plays an important

role in the development of key electronic and energy components and communication equipment of KONČAR's production program.

The Institute participates in research, development, testing, supervision and expertise on a large number of KONČAR Group projects. In addition to providing support to KONČAR Group companies, the Institute's experts cooperate globally in the development of rotating machines and security critical embedded computing systems for a foreign customer. The export potential for the global market are also transformer, bushing and machine monitoring systems and laboratory testing.

It is also investing in the reconstruction of the existing and construction of new laboratory infrastructure. The modernization of laboratory infrastructure is a prerequisite for improving the testing and the market position of the Institute. The strategy of providing laboratory services is based on competences, quality, speed and the so-called “one-stop testing” approach.

GRI 201-1

Direct economic value generated and distributed

(mil. €)

Component	2018	2019	2020	2021	2022
Direct economic value generated	10.56	10.34	10.03	12.32	13.54
Sales	10.52	9.24	9.54	11.98	13.18
Financial income	0.01	0.03	0.01	0.01	0.03
Asset income (rental and sales)	0.03	0.30	0.01	0.04	0.04
Income from co-financed projects	0.75	0.77	0.36	0.17	0.16
Direct economic value distributed	10.33	9.22	9.33	10.56	11.30
Suppliers of materials and services	3.89	3.06	3.25	4.31	4.44
Education & training	0.12	0.12	0.06	0.06	0.09
Services of academic community	0.24	0.30	0.13	0.05	0.04
Other costs	0.42	0.13	0.53	0.17	0.12
Salaries & allowances	3.43	3.36	3.33	3.76	4.46
Taxes. contributions. insurances	2.23	2.23	1.99	2.20	2.38
Donations	0.01	0.02	0.01	0.01	0.01
Retained earnings	0.23	1.12	0.70	1.75	2.24

In 2022, the income from diagnostic and on-situ tests is higher than planned, and the income from the Laboratory Center's services has also increased. Laboratory HV equipment testing, transformer and conductor monitoring systems, rotating machine monitoring systems and development services for security critical embedded computing systems were the most important export products and services.

Revenue from sales amounted to 13.17 million euros in 2022, 45% from diagnostics, testing and certification, 30% from proprietary solutions, and 25% from research and development.

The following figure shows sales revenue for key business activities for the past five years.

The Institute's long-term business strategy in the coming period will be focused on excellent research and development services, competent and well-equipped laboratories and competitive advanced products based on information communication technologies.

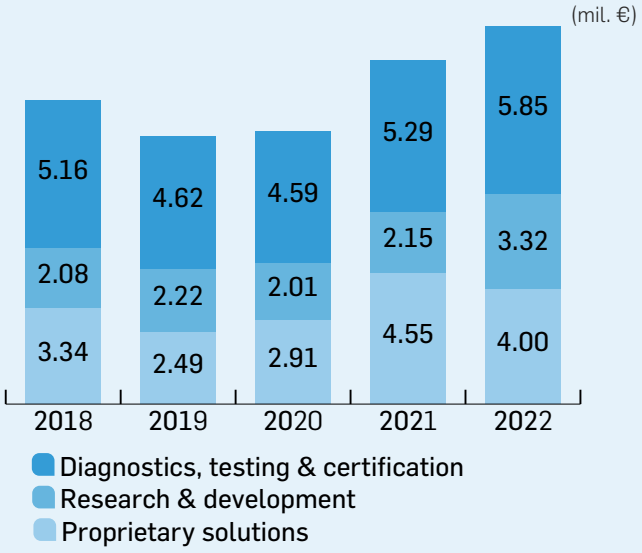
The Institute operates exclusively with its own funds and is not exposed to interest rate, credit, and liquidity risks. Its short-term assets are 4.3 times higher than short-term liabilities, and in short-term assets 53% include financial assets and cash that, together with open liabilities, after the end of the business year, ensure stable operations of the Institute in the forthcoming period.

It is planned to continue the investment in competencies within the Certification Service and the Service for Electrical and Measurement Equipment Inspection. These services, together with the Institute's certification for 4 EU directives (Notified Body 2494), further increase the Institute's visibility on the market for laboratory, diagnostic, certification and inspection services.

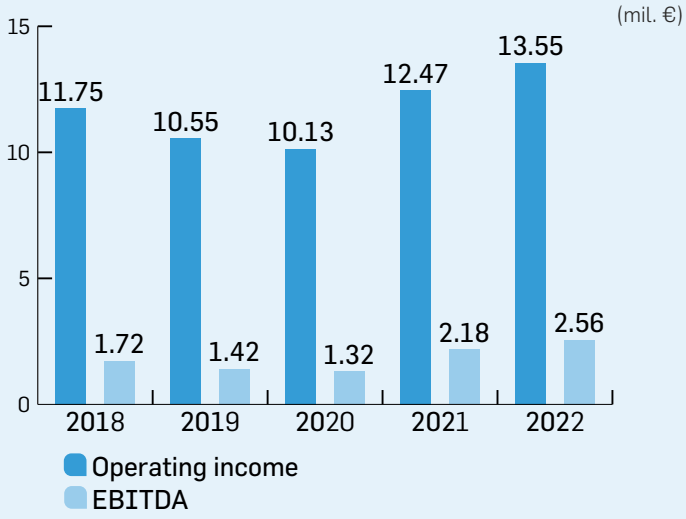
Key business indicators

Productivity measured by value added per employee in 2022 was € 47,944, which is a 10% increase compared to 2021. In 2022, operating income was 13.55 million €, while EBITDA amounted to 2.56 mill. €. In the last 5 years, the average annual sales revenue growth was 6.9%.

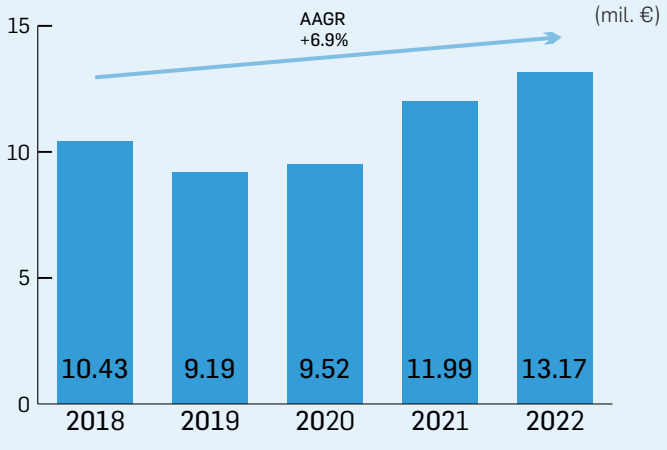
Sales per business activities



Operating income; EBITDA



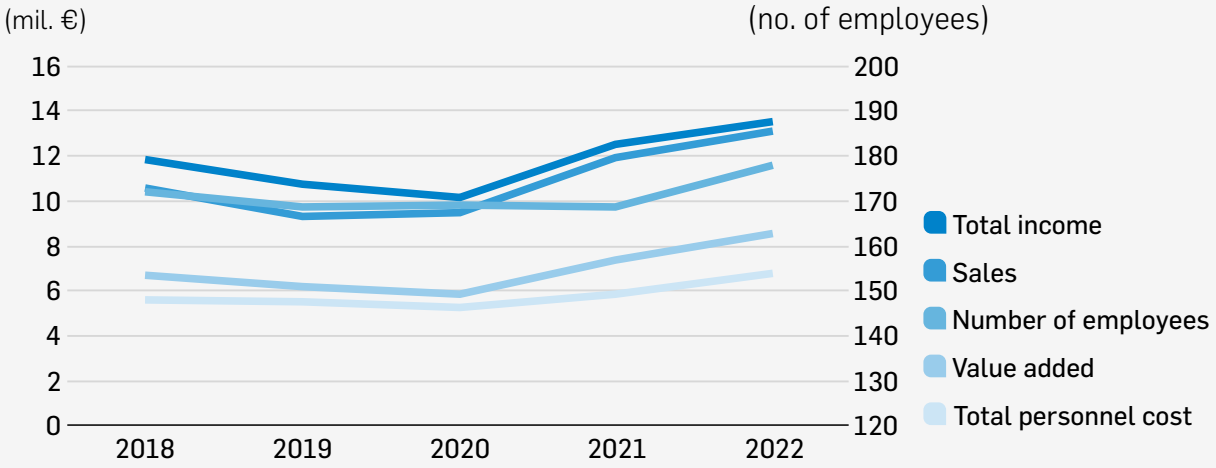
Sales revenue; AAGR*



*Average Annual Growth Rate

Trends in total income, sales, value added, total personnel cost, and number of employees

Trends in total income, sales, value added, total personnel cost, and number of employees in the last 5 years are shown below.



Investment in the development

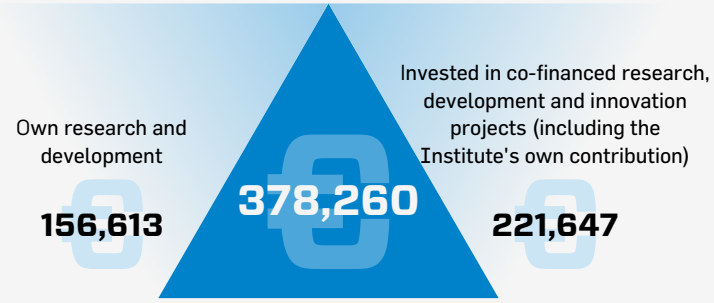
In 2022, investments in non-current assets amounted to 4.35 mill. euros - 2.05 mill. euros in the construction of the new LAVESP project lab, 2,29 mill. euros in equipment, and 7,963 euros in software and development. Investment maintenance of equipment and buildings amounted to 196,430 euros. Investments in education with total eligible costs (tuition fees, registration fees, professional literature and official trips related to training) amounted to 88,924 euros. The license and maintenance cost of the software was 281,372 euros.

(mil. €)

	2018	2019	2020	2021	2022
Investments in equipment & refurbishments	0.66	0.57	0.55	2.87	4.35
Investment maintenance	0.08	0.08	0.07	0.19	1.96
Software license and maintenance	0.27	0.21	0.15	0.18	0.28
Investments in R & D	1.29	1.03	0.99	0.69	0.38
Education	0.12	0.12	0.06	0.05	0.09

Investments in R & D

Numerous R & D and innovation projects are underway, which are either co-financed from national or EU funds or financed solely with Institute's own funds. In 2022, investments in research and development amounted 378,260 €.



Increase of laboratory capacities by our own investment

Late in 2022, the construction of the new LAVESP laboratory was completed, with a total investment of €8.53 million. This was the Institute's largest and the most important investment since 1971. The project applied to and was approved by the Ministry of Economy and Sustainable Development for an investment grant (under the Investment Incentive Act). In January 2023, the laboratory received the occupancy permit and started operations.

The heart of the building is a HV laboratory, 30 x 35 m in floor size and 28 m in height, completely enclosed in a Faraday cage.

The new laboratory is a leap in the Institute's testing capabilities and market position.

Besides the new LAVESP laboratory, in 2022 the Institute made other investments as well:

- Stator inspection equipment without rotor extraction (robot inspection)
- Expanding the capabilities of EMC testing equipment
- Boroscope/endoscope for testing of rotating machines
- Titrator for chemical analysis
- Compact surge generator
- Equipment for field calibration
- Climatic chamber
- 380 kV standard voltage transformer
- Measuring equipment

Key impacts, risks, and opportunities

Market risk

The Institute manages the economic effect of its business policy based on the diversification of market risk. Of the three core businesses, some always bring higher revenues than others due to market conditions and contracts. The Institute is constantly trying to develop new products and services in order to compensate one reduced activity with another.

Interest rate, credit and liquidity risks

The Institute is funded exclusively by its own resources and is not exposed to interest rate, credit and liquidity risks.

Currency risk

The company is exposed to currency risks, i.e. changes in foreign exchange rates when purchasing equipment and parts for its own products, but this risk is minimized by doing business with suppliers mainly in EUR, and avoiding currencies as CHF I USD.

Technological-development risk

Personal development and improvement of employees are very important for the Institute, because business activities and development are based on the application of knowledge, i.e. on good knowledge of problems and ways of solving by applying new techniques and technologies. With additional training, active participation in international conferences and exhibitions employees gain specialist knowledge and make innovations that create a competitive edge and contribute to the success of developing new products and services.

Personnel risk

The risk of key employees leaving the company and competencies retention were recognized as main priorities of the Institute in 2022. We have been working on preventing unwanted employee turnover and improving the organizational climate and employee satisfaction. Employees are given the opportunity for professional development, foreign language learning, IT training and education for quality systems, environmental protection and work safety. New competencies are gained through postgraduate doctoral and specialist studies, and creativity and leadership development are encouraged through management education programs.

GRI 201-2

Climate change: financial implications, risks and opportunities

Climate change is the main topic of discussion in almost all international organizations, governments and large and small companies around the world. The Institute is not an exception and has been encouraging and implementing measures to reduce greenhouse gas emissions for many years. Through its policy of governance and social responsibility the Institute undertook to maintain high standards of environmental protection and health and safety in all business processes.

Although the Institute develops its business in the field of services with less significant consequences for the environment, employees of the Institute pay great attention to environmental protection in two ways. One is to launch a range of initiatives to mitigate climate

change within the Institute, monitor the consumption of heat and electricity, as well as water in order to rationalize self-consumption while at the same time regulating the working environment and facilities. The second way is through new technical solutions of products with minimal environmental impact and suitability for recycling at the end of their lifetime. Observing the whole product lifecycle is one of the important elements that gives the future product user-added value, the meaning of which is increasing every day.

Most of the Institute's facilities were either reconstructed or they are currently undergoing reconstruction in accordance with the energy efficiency rules of buildings in order to reduce heating and cooling costs. Such access to natural resources significantly contributes to the reduction of costs related to the Institute's infrastructure, which is very large and demanding in terms of space and installations and without which the Institute could not perform very complex research and testing.

GRI 201-3

Defined benefit plan obligations and other retirement plans

In the preparation of the annual financial statements for the year 2022, provisions for jubilee awards and severance payments amounting to 0.17 million euros were made. The amount includes the estimated amount of regular employee benefits in accordance with the Collective Agreement. The present value of the provision is calculated on the basis of the number of employees, the amount of the pension, the working life on the balance sheet date and the discount rate of 3.2%. The reserve amount fully covers the anticipated severance grants and rewards of employees who have been eligible for this in 2022.

The companies of the KONČAR Group regularly pay contributions for all workers in the system of generational solidarity at the rate of 20% for the 1st pension insurance pillar. For insured persons who are insured in both mandatory pillars, the contribution rate for the 1st pillar is 15%, and for the 2nd pension pillar the contribution of 5% is paid to personal accounts in mandatory pension funds.

Employees can elect to contribute to the voluntary 3rd pillar pension fund. If they elect one of the pension funds, the employer withholds the voluntary pension insurance from their gross salaries up to a maximum tax-free amount of 66.36 euros monthly or a total of 796.34 euros annually.

GRI 201-4

Financial assistance received from government

In 2022, the Institute received the state aid in the amount of 62,281 euros through the reduction of the profit tax base (education and training grants) and the 100% reduction of profit tax pursuant to the Investment Incentive Act, i.e. the amount of 289,673 euros. The Ministry of the Economy, Entrepreneurship and Crafts was paid 143,701 euros for the co-financed R & D project 5G-Smart Sense.

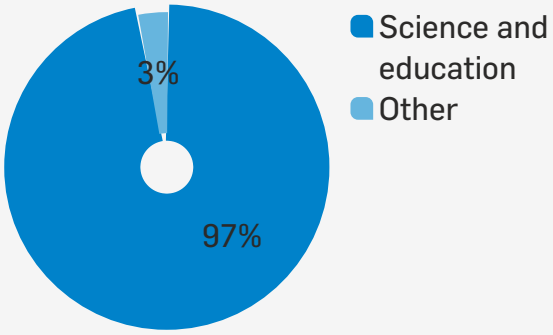
Donations and sponsorships

The Institute's long-term strategy is to promote partnerships with engineering schools and to encourage development and exchange of knowledge in the field of natural sciences and electrical engineering. That is why in 2022 the Institute directed most of the funds (97%) to education and

science, and 3% to other causes.

The Institute participates regularly in the curriculum, congresses and exhibitions, awards the best students from engineering schools, and as a part of the KONČAR Group participates in joint humanitarian programs.

Donations and sponsorships were 0.1% value added.



GRI 203

Indirect economic impacts

Scientific-research organizations should be involved in national and international projects to ensure co-financed funding and the ability to adopt state-of-the-art scientific methodologies and procedures, create innovations and evaluate their own work.

The Institute is an accredited scientific organization in the field of technical sciences, whose sole owner (shareholder) leaves the overall profit for its development. The tradition of applied research and development of products and technology at the Institute has been developed for 62 years and has played a major role in the production program of KONČAR Group. Examples are the development of key electronic and power components and communication equipment and solutions for low-end trams and electric and diesel trains. Knowledge acquired by participating in R & D projects and product creation has enabled the development of new business activities, further growth and acquisition of new competencies, creation of desirable jobs and innovation. Acquired references as added value keys are the ones that open the door to new business opportunities.

The importance of scientific and technological development for the overall economic development has been recognized through numerous researches that show that social benefit from investment is considerably higher than private benefit, which is one of the most important reasons for state incentives and financing of this activity.

Value-added products – innovations that ensure a sustainable development and a competitive economy – are produced through scientific research and experimental work.

GRI 203-2

Significant indirect economic impacts

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

The results of participation in national and international projects are the original solutions applicable in practice, whose aim is the exchange of knowledge and ultimately an innovative product competitive on the world market.

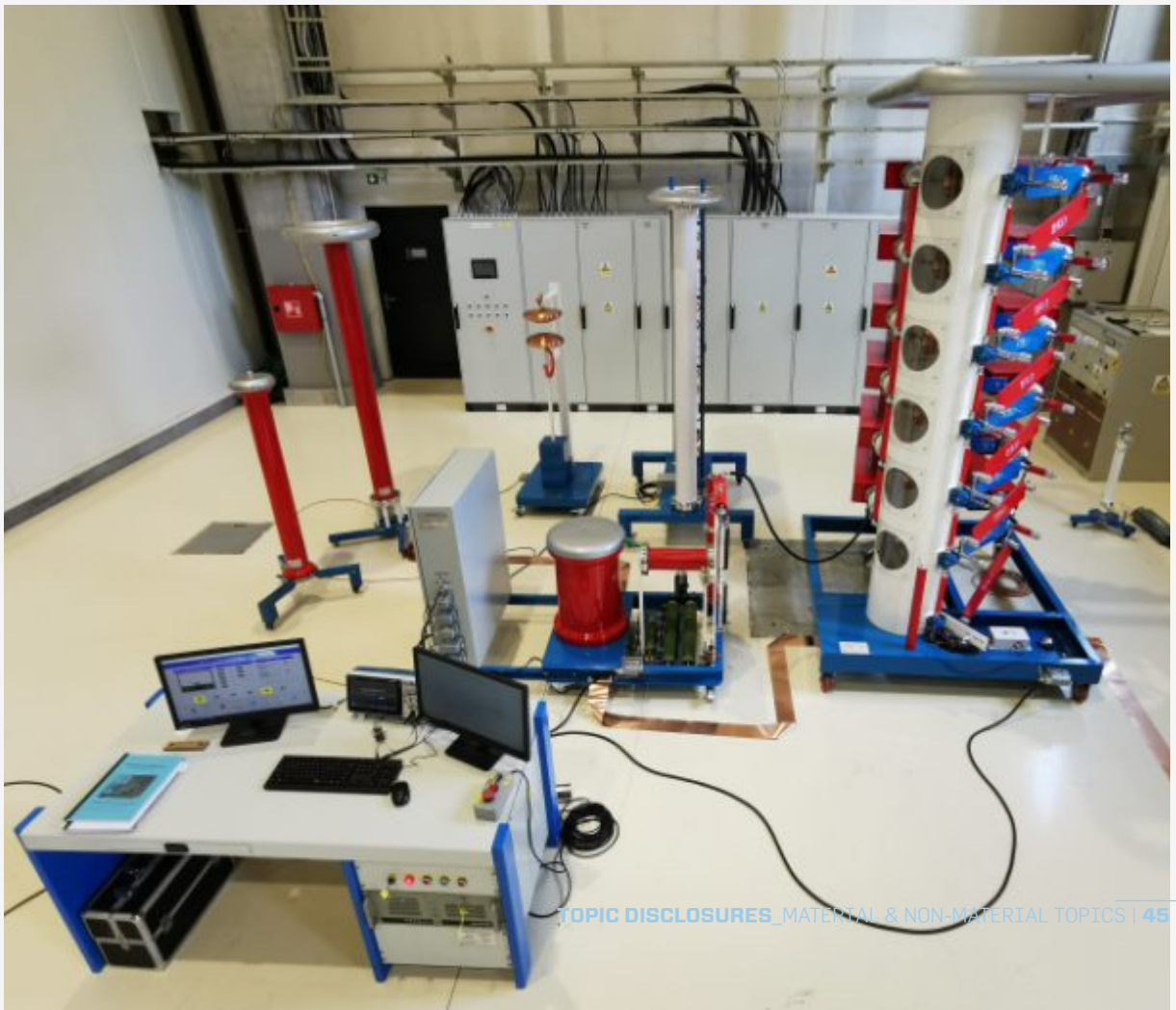
New patent for the method and device increasing the reliability of signals displayed on the screen

Successful long-term cooperation between two companies from the KONČAR Group, i.e. Institute and Engineering, resulted in a new intellectual achievement of two authors, Mario Bilić

and Davor Mraović. The European Patent Office granted a patent for their invention called: **Method and device for displaying safety unit signals with information regarding reliability of displayed signals**. This is a new method and device to display safety unit signals, which increases the reliability of displayed signals. The invention offers a reliable solution for observed technical limitations on currently available functional safety systems. The graphic effect of a floating "light beam" signalizes any phase decoherence, i.e. desynchronization among redundant signal paths, thus ensuring perfect operation of hardware and software, or any processing unit and communication channel for redundant signal processing.

Project funded by Croatian Science Foundation

The project **"Capacitively graded oil-paper insulation behavior under very fast transients"**, financed by the Croatian Science Foundation, has been in-progress since 2018. The entire project is worth €118,973.30 and is planned to be completed in 2023. The aim of the project is to research and define the experimental setup appropriate for testing all types of transients for this kind of insulation. The knowledge gained on the behavior of the insulation under transients will contribute to the optimization of electrical equipment design and monitoring, thus increasing its safety and reducing the impact on the environment. The project also acquired a new 600 kV surge generator with a reference resistive voltage divider with an aim of reliably generating and measuring the impact of transients on HV insulation.



Projects co-funded by European Regional Development Fund

The research and development project called **Smart Sense – 5G Autonomous Drone System**, co-financed by the European Regional Development Fund, was initiated in early 2021 and is expected to run by mid 2023.

The goal of the project is to solve the problem of border control and safety, early fire detection and air quality and electromagnetic non-ionizing radiation measuring in order to collect real-time data of an area by using the drone's autonomous flight.

The project is led by Smart Sense from Zagreb, with KONČAR – Electrical Engineering Institute and Montelektro from Sveta Nedelja as partners. The total value of the project is 3.65 mill. €, with 2.79 mill. € co-financed from the ERDF.

GRI 205

Anti-corruption

Anti-corruption policy of the Institute is implemented by doing the entire business in accordance with laws, international regulations and rules of profession in an honest, fair and ethical way, with zero tolerance to bribery and corruption. The policy defines the reporting procedure, and every employee shall report any knowledge or doubt of bribery or any form of corruption inside or outside the Institute to the head of their business units or service. Employees can report their knowledge or observations either orally, by mail or by an anonymous note put in a special box.

GRI 205-2

No case of corruption has ever been noticed in the Institute.

Rational consumption of energy resources and the establishment of emission control systems in environmental constituents reduce the adverse effects to the smallest possible extent.

GRI 302

Energy

The Institute purchases electricity and heat from the distributor KONČAR – Infrastructure and Services Ltd., a company within the KONČAR Group, which supplies KONČAR's locations with energy (electricity, gas, heat and compressed air), water (cold, warm, technological) and provides drainage systems.

Business activities of the Institute affect energy consumption. The consumption and its costs are monitored and measured, all major deviations are analysed, and risks assessed.

We protect the environment

By responsible management of natural resources and waste disposal in a safe and secure way we protect human health and minimize environmental impact

GRI 302-1

Energy consumption within the organization

The consumption of electrical energy increased in 2022 by 13%, which is due to increased operations compared to 2021. Fuel consumption for official cars reduced by 8% compared to 2021. Heat consumption reduced by 23% compared to 2021, which is partly the result of continuous investment in the energy efficiency of the Institute's facilities.

In 2021, around 500,000 euros were invested in the reconstruction of the envelope of the P-object. Calculated heating energy needs for real climatic data was 288 MWh/a before the envelope reconstruction, and only 174 MWh/a after the reconstruction, which amounts to savings of 40% and an annual reduction of 29 t of carbon dioxide.

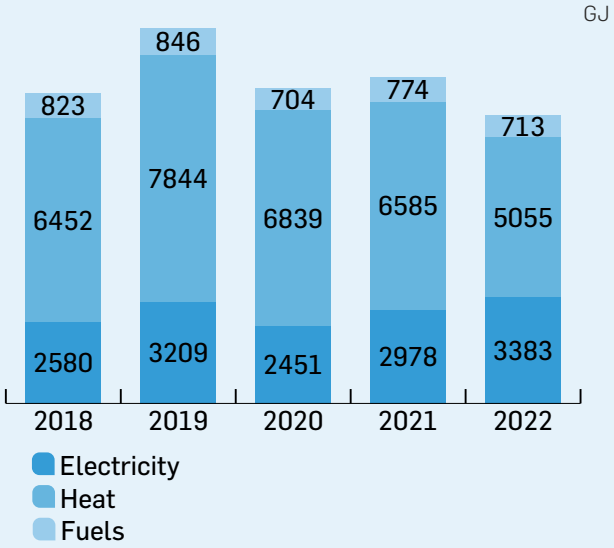
Energy costs were 4.15% value added.

GRI 305

Emissions

Direct and indirect emissions include fuel consumption of company-owned vehicles, fuel consumption of privately-owned vehicles used for business purposes and fuel consumption of planes are also included.

Since 2019, the Institute has been using green energy (ZelEn), which guarantees that the electricity needed in the business is produced from renewable energy sources, further contributing to the reduction of CO2 emissions.



Indirect energy consumption

	Total indirect energy consumption (from non-renewable energy sources) in GJ – thermal energy for heating from the heating plant	Total indirect energy consumption (from renewable energy sources) in GJ – purchased electricity
2018	6452	2580
2019	7844	3209
2020	6839	2451
2021	6585	2978
2022	5055	3383

Energy consumption in GJ

GRI 305-1/2

Total direct and indirect greenhouse gas emissions per weight

Annual fuel consumption of vehicles and planes is directly dependent on business activities and increased number of travels and diagnostic tests on site (transport of measuring equipment and test engineers).

Co_2 emissions by weight

	CO_2 emissions per activity in tones				
	Fuel CO_2(t)*	Electricity CO_2(t)*	Heata CO_2(t)*	Flights CO_2(t)*	Emissions total CO_2(t)*
2018	60.3	198.4	482.8	48.7	790.2
2019	62.0	205.7	587.0	24.5	879.2
2020	51.5	0**	511.8	13.2	576.5
2021	56.5	0**	492.8	8.7	558.1
2022	52.0	0**	378.3	33.0	463.3
Scope	Scope 1	Scope 2		Scope 3	

**A contract was signed with HEP Opskrba on the purchase of electricity from renewable sources (ZelEn – Green energy) on 1.10.2019.

GRI 306

Waste

Since introduction of Environmental Management System (EMS) in 2002, waste has been disposed in the Institute in accordance with Croatian laws and regulations. EMS applies to all organizational units (business units and services), all working areas, all places of work and work resources, all workers and other persons who have access to or stay in the Institute's premises for any reason whatsoever.

In Laboratory for Physical and Chemical Testing the work with chemicals is under constant monitoring, and the prescribed environmental measurements and testing are carried out. All the employees in the Laboratory are technically competent for work with poisons, have completed courses in toxicology in accordance with the applicable legislation, so that there is full compliance with legal requirements. Safety data sheets for dangerous substances, instructions and other documentation are maintained and compliant with GHS and REACH directives.

Proper disposal and classification of waste is an on-going task of all employees, and raising

awareness of the importance of the environment and training on the culture of waste disposal in the Institute is carried out with all new employees.

GRI 306-2

Waste by type and disposal method

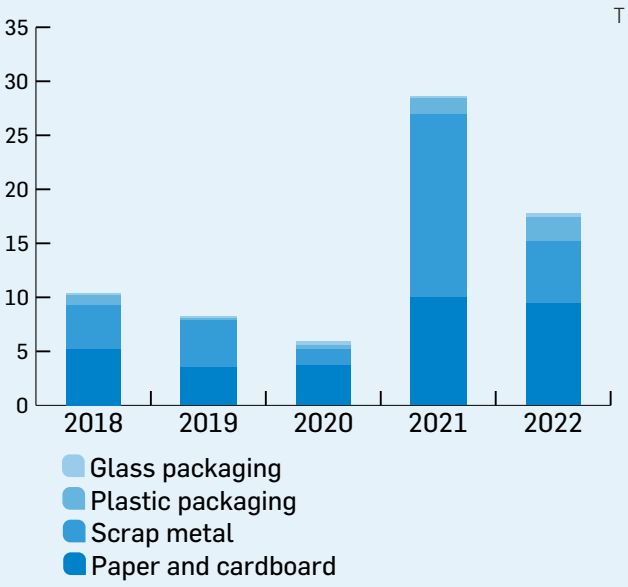
Our work processes generate waste that requires special disposal methods including recognition of hazardous waste, collecting, temporary storage, disposal by the authorized waste disposal contractors, keeping prescribed records and delivery of data about waste.

The effectiveness of the measures taken shall be checked on an annual basis and an internal audit shall be carried out to determine any deficiencies. The amount of municipal, mixed waste is monitored, measured and steps are taken to improve the collection and disposal system.

The quantity of waste metal and cardboard is directly influenced by business processes, i.e. by increase of purchases, deliveries and investments in the current year.

Hazardous and non-hazardous waste

Non-hazardous recyclable waste



GRI 401

Employment

8 DECENT WORK AND ECONOMIC GROWTH

Solving complex industrial challenges and participation in international and national projects encourages employment on challenging tasks and creates new desirable jobs.

The Institute mostly employs young and college-educated people, and by working on research and development tasks together with experts from other KONČAR companies or in partnerships at national and international projects they gain new knowledge and team work experience. Satisfied and motivated employees are the basis of our long-term business success, and well-educated and competent experts are our greatest asset.

We protect people and the community

Our business activities reflect global needs and ambitions for solving complex technological challenges, protecting people and the community

Motivation of employees for scientific and professional development, personal advancement and their focus on the areas of interest of the Institute are a huge force for technical creativity and competition at the global level.

The Institute offers its employees the acquisition of expert knowledge, challenging jobs and fair working conditions. They include fair compensation for their work, additional benefits, and flexible work practices to meet individual employee needs. All employees are provided with continuous personal and professional development through education and training programs.

Challenging tasks, comfortable and air-conditioned workspace, modern equipped laboratories, decorated landscape, intranet and the availability of international databases of worldwide published papers are the main features of the business environment of today's employees of the Institute.

Job recruitment, selection and retention procedures are constantly being promoted and aligned with new challenges. External and internal communication and improvements in two-way inclusion process require additional attention in the coming period.

Number of employees 2013 to 2022

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
New employees hired	9	9	11	15	21	10	9	17	15	32
Employees who left the Institute	7	5	12	12	20	6	13	15	14	12
Total No. of employees on 31 December	164	168	167	170	171	173	167	169	170	190

GRI 401-1

New employee hires and employee turnover

At the end of 2022, the Institute had 190 employees, i.e. 20 associate more than at the end of 2021. In 2022, 32 new associates were hired and 12 ended their employment by agreement.

Over the past ten years, 124 employees have left the Institute, and 145 new employees hired.

GRI 401-2

Benefits provided to full-time employees

Additional benefits create a positive atmosphere that favors the climate of unity and cohesion in the Institute, despite differences in monthly wages that are related to the success of performance of each business unit or service:

- Educational and professional programs for improvement of knowledge and skills
- Paid business trips and participation in international conferences
- Christmas and Easter bonuses, holiday cash grants
- Jubilee financial rewards for 10, 15... years of service in the Institute
- Money reward for completion of graduate and postgraduate studies
- Financial aid in the case of sick leave exceeding 90 days
- Allowance in the case of death of immediate family member
- Allowance for each new-born baby
- Regular medical check-ups
- Leisure time recreation
- Mobile phone.

There are special bonuses for each successfully completed job. Corporate loyalty is fostered and each employee who wishes to improve their knowledge in the areas that are of interest for the Institute will have paid expenses of such training or education.

MultiSport program

The Institute, in collaboration with the company Benefit Systems, has enabled its employees to use the MultiSport program with more than 50 different sports activities in more than 360 sports facilities.

The program encourages employees to live a healthy and active life and adopt daily physical activities. In order to provide its employees with a balance between business and private life, the Institute covers 50% of the monthly fee for the use of the Multisport program.

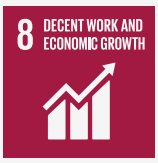
GRI 401-3

Parental leave

All female employees have the right to maternity and parental leave, and male employees have the right to fraternal and parental leave in accordance with the decision of the Croatian Institute for Health Insurance (HZZO). During the reporting period, 6 female and 6 male employees exercised this right, with 6 of them returned to work in 2022.

GRI 403

Occupational health and safety



Healthy and secure working environment is recognized as our greatest responsibility and contribution to creating quality jobs.

GRI 403-1/10

Occupational health and safety risk management is the overall process of identifying, assessing and monitoring the risks, and in accordance with them taking the necessary measures and controls for the purpose of eliminating risks, reducing risks and / or controlling them. Safety at work and occupational health care are essential elements of working conditions governed by applicable Croatian regulations and OHSMS procedures.

OHSMS is a part of the integrated management system defined by the OHSAS 45001 and represents a mechanism for occupational health and safety. The fundamental goal of the system is to ensure a healthy and safe working environment, i.e. to remove or reduce the risk of work injury and occupational illness for all employees of the Institute and other persons to whom the activities of the Institute may have an adverse effect.

The Institute has a contract with a medical specialist who regularly monitors the health status of workers through periodic and extraordinary medical examinations. Examinations are carried out during working hours, and the health institution in which the examinations are conducted is located directly next to the Institute's location.

Workers are involved in health and safety during risk assessments. All workers can initiate or suggest improvements, more practical solutions, eliminate omissions and irregularities in the implementation of workplace safety regulations or improve the management of occupational health and safety through communication channels: representatives at the Workers' Council and the Commissioner for Occupational Safety, either publicly (verbally or in writing) or anonymously (polls and mailbox).

In order to assess employees' awareness of prevention measures and to identify the risk of exposure to stress at the workplace, every two years the exposure of the Institute's employees to psychosocial risks in the work environment is examined through questionnaires. The examination is anonymous, and the results are published on the Institute's intranet.

The following trainings have been carried out:

- safe work and starting fire extinguishing of all new employees
- operation of forklifts, crane lifts, self-propelled lift platform and scaffolding
- handling hazardous chemicals
- for authorized persons in the field of occupational safety.

GRI 403-9

Work-related injuries

	2018	2019	2020	2021	2022
Average number of employees	172	169	169	169	178
Number of fatal injuries	-	-	-	-	-
Number of group injuries	-	-	-	-	-
Number of severely injured at work	1	1	1	1	1
Number of light injuries at work	3	1	-	2	1
Total number of injuries	4	2	1	3	2
Number of lost working hours	1008	1672	208	208	936

In 2022 2 occupational injuries occurred and were reported in accordance with regulations and OHSMS procedures. There were two injuries (1 severe and 1 light) that happened while travelling to or from work, and a light injury at workplace, which involved a cut caused by a work-related tool and had no lasting consequences to the employee's health.

The rate of work-related injuries that were recorded in 2022 is 1.12 based on 200,000 hours worked.

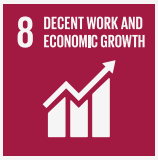
GRI 403-10

Work-related ill health

None.

GRI 404

Training and education



We encourage personal development and improvement of employees through professional education, foreign language learning, IT training and education for quality systems, environmental protection and occupational safety.

The focus of employees on scientific and professional training, as well as encouraging excellence and innovation in creating competitive advantages contribute to the success in the development of new products and services. The advantage over others is achieved through faster and more versatile learning, and the acquired knowledge and competences give us an advantage on the market.

Employees are given the opportunity of professional education, foreign language learning, IT training and education for quality systems, environmental protection and safety at work. New knowledge is gained through postgraduate doctoral and specialist studies as well as work on research development tasks in mixed teams of KONČAR Group companies, at seminars and in active participation in international congresses and exhibitions. Creativity and leadership development are encouraged through management education programs.

Internal processes are continually improved in the HRM system (the system of monitoring the staff of the KONČAR Group), and effects and costs are monitored through the procedures in the Annual Education Plan and the Program of Training and Education.

GRI 404-1

Average annual number of training hours per employee

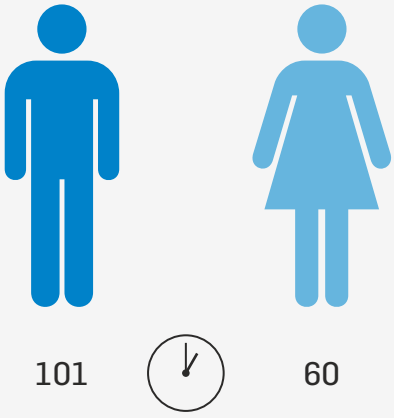
In 2022 68% of employees attended some form of training or education, and average lesson time was 97 hours per employee.

Doctoral and postgraduate students are men, which increases the difference in the average hours of training and education in 2022 in favor of men. Also, training for types of jobs mostly made by men (work with a forklift, crane and self-propelled lifting platform).

Average hours of training and education in 2022

Category	Hours
Managing Board (Top management)	74
Heads of business units and services (Middle management)	163
Heads of laboratories and sections (Lower management)	69
Employees	91

Per gender



GRI 404-2

Programs for upgrading employee skills and transition assistance programs

Program for new employees and trainees

The program for new employees and trainees enables familiarization with the Institute's legal acts, management systems, health and safety protection, and the basic concepts of corporate social responsibility and the application of sustainability principles at the Institute.

Acquisition of specialist knowledge and scientific vocation

Postgraduate doctoral studies are attended by 8 associates at three technical faculties of the University of Zagreb, 1 attendees are studying postgraduate specialist studies and 2 undergraduate and graduate studies. The Institute has 15 scientists enrolled in the Register of Scientists, 4 of them with the status of research associate and 2 senior research associate. In 2022 employees attended German and Spanish language courses.

Doctoral Thesis

Siniša Majer, PhD successfully defended his doctoral thesis *Sources of Windage Power Losses in Salient Pole Hydrogenerators* at the Faculty of Mechanical Engineering and Naval Architecture of the University of Zagreb, and was thus awarded the degree of doctor of technical sciences, field

of mechanical engineering. The committee evaluated his thesis magna cum laude for its contribution to the construction of generators with reduced ventilation losses in comparison to existing ones. The results of the research presented in the thesis can help develop tools for improved analytic calculations of ventilation and ventilation losses, as well as increase reliability of calculation results in the existing models of hydrogenerator ventilation grids.

Leadership Education

A training cycle for the management of KONČAR Group companies was started in 2022 to enhance management, motivation, and leadership competencies. The Leadership Education program included 107 trainees from 13 companies. The trainees attended four 2-day modules (Leadership – Team Development and Management, Change and Conflict Management, Self and Time Management, Effective Communication and Feedback Skills) and a single-day module (integrating all subjects covered in previous modules).

KONČAR Digital Factory Lab

KONČAR established the Digital Factory Lab – DFL to successfully follow, adopt, and apply technology trends. During 2022, the Institute, as the DFL coordinator, organized 11 education activities for a total of 281 trainees on the following subjects:

- Practical use of advanced digital tools and technologies
- Project, process, and product management
- Operational plan and strategy planning and development
- Dynamic production planning
- Advanced modelling methods
- Structural simulations, electromagnetic simulations, and fluid simulations

Training programs for standardized management systems

In 2022 KONČAR organized and started the 23rd cycle of seminars and courses on standardized management systems, related tools and techniques, as needed for KONČAR employee training.

Based on the training needs for employees of 15 KONČAR companies, seven seminars and six courses were held, some for more than one group of trainees.

Internally developed training programs

Individual internal coaching programs with employees, such as “Unlock your potential – methodology to reach your goals” continued in 2022. The aim was to adopt the tools and methods for coping with emotional and stressful situations faced by employees. An annual plan for workshops was also adopted, which includes other themes:

- How to increase team synergy and productivity
- Better time and stress management

GRI 404-3

Percentage of employees receiving regular performance and career development reviews

A series of workshops was organized in 2022 on the importance of feedback for employees, and 12 Institute trainees received review and feedback on their leadership competencies. The management received guidelines to improve their communication with the employees, and special attention was given to performance review, career development and efficient communication.

Intensive internal improvement activities have also been started, resulting in a significant increase in the share of employees receiving feedback on their work. There are plans for annual individual meetings and feedback for employees in the upcoming period, to serve as opportunities for giving employees credit for the work well done and point out the areas for improvement.

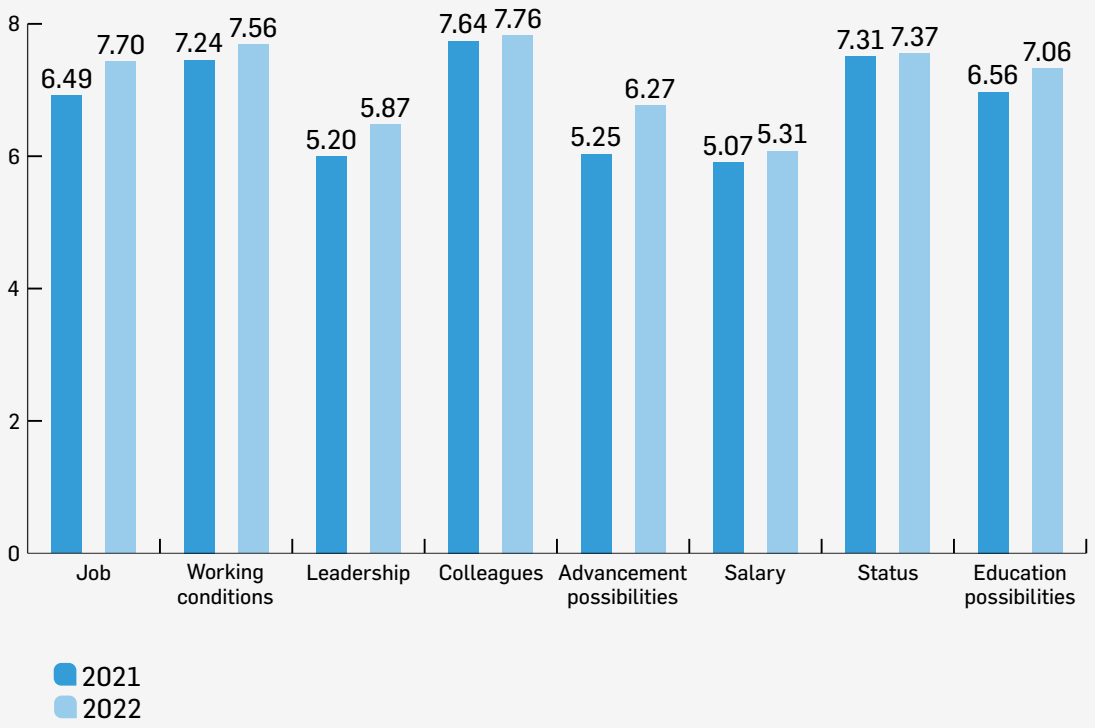
Employee satisfaction and organization climate survey

An employee survey is conducted once a year to gain a better understanding of their satisfaction and sentiment towards certain aspects of their employment and to measure the organizational climate within the KONČAR Group of companies. The survey is conducted on an online platform, and satisfaction is measured through 24 statements grouped into 8 areas. The results of the 2022 survey conducted among Institute employees show improvement in all 8 areas from survey results in 2021.

Employees expressed the greatest satisfaction with their coworkers, working conditions and their status. They understand how their work contributes towards the goals of their team, have adequate work-life balance, and can rely on the support of their coworkers when needed. The employees satisfaction was the least when it came to salary and recognition because they believe their income is low compared to their colleagues in other companies. They are also unsatisfied with the way objectives and strategies are communicated to the employees and are not inspired by the company's purpose and mission.

The results of the survey are published on the intranet and are used for creating action plans for improvement in identified areas.

Survey results comparison between two consecutive years



GRI 405

Diversity and Equal Opportunity

5 GENDER EQUALITY

By accepting and encouraging diversity and equal opportunities, we contribute to both organizational culture and the general goals of non-discrimination and gender equality.

Diversity management assumes systematic and planned focus of the Institute towards attracting and retaining employees of different profiles and competencies to achieve competitive advantage through an inclusive working environment and teamwork.

The diversity and non-discrimination policy of the Institute is directed towards better understanding of the impact of diversity among all stakeholders of the Institute, defining goals, roles and responsibilities and monitoring measurable impact indicators.

The Diversity and Non-Discrimination Policy in the Workplace is available to all the stakeholders on the Institute's website and intranet, while the Diversity and Non-Discrimination Action Plan is available on the Institute's intranet.

Action plan to promote diversity and non-discrimination 2022 – 2025 was developed in accordance with productivity results and progress estimates from the previous period.

The annual Report for 2022 provides an assessment of progress made towards achieving measurable action plan targets in 5 key areas:

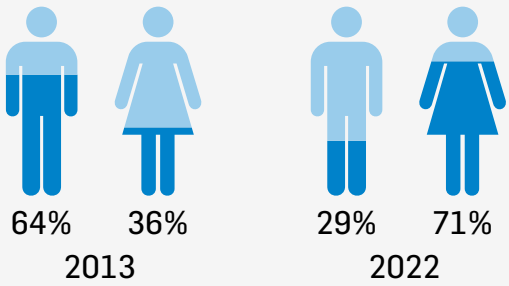
KEY AREAS	ASSESSMENT OF THE IMPLEMENTED MEASURES IN ACHIEVING THE TARGETS
Diversity management	All measures were successfully implemented, setting responsibilities and time frames as well as measurable impact indicators in achieving this target.
Recruitment, selection and retention	Planned containment measures are implemented and effects are monitored. An employment manual is being prepared.
Working environment	Activities are being carried out to integrate the principle of diversity into the process of performance management and education and development programs. According to the respondents' assessments, two indicators have improved, while others need to be redefined in the forthcoming period.
Communication and education	The Diversity and Non-Discrimination at Work Policy is accessible to all stakeholders, but no process has been carried out to verify that its principles are understood at all levels of the Institute.
Balance of private and business life	Employees are satisfied with flexible work practices that allow them work-life balance and continuous support for personal progress.

GRI 405-1

Diversity of governance bodies and employees

The Institute's specific business stipulates that it employs men in the highest percentage. The share of women employees varies and is mostly between 23 and 25%. However, the share of women in the management structure of the Institute has been rising constantly, from 36% of women in the Managing Board and middle management (heads of departments) in 2013 to staggering 71% in 2022.

Comparison of percentages of female employees in the managing board and middle management in 2013 and 2022



Percentage of female employees

Category	2013	2022
The Managing Board and middle management (heads of business units and services)	36 %	71 %
Lower management (heads of laboratories and sections)	11 %	6 %
Employees	25 %	25 %

Average age

Category	2013	2022
The Managing Board and middle management (heads of business units and services)	50	49
Lower management (heads of laboratories and sections)	47	42
Employees	40	39

Ratio of basic salary and remuneration

GRI 405-2

Category	M/F
Heads of business units and services (Middle management)	1.02
Heads of laboratories and sections (Lower management)	0.97
Employees	1.13

GRI 406

Non-discrimination

The Institute further strengthened the application of the principles of diversity and non-discrimination as fundamental values of modern society by signing the Charter on Diversity in 2017. With this voluntary initiative, it undertook to create a diversity and non-discrimination policy, an action plan with measurable indicators, and to report on its progress once a year.

Diversity Charter

By signing the Diversity Charter, the Institute has made public its commitment to effective diversity management, preventing discrimination and promoting equality and non-discrimination on working place. Promotion of these principles as a form of social responsibility and awareness of the need to prevent discrimination and promote diversity and equality is integrated in the business strategy of the Institute.

Jednaki u raznolikosti
Equal in Diversity

The Diversity Charter is a voluntary initiative launched in 16 EU countries and joined by the Institute to promote the principles of diversity and non-discrimination in the workplace. The Diversity Charter Croatia was developed as part of a joint project of the Croatian Business Council for Sustainable Development (HR PSOR- a) with partners from Slovenia and Romania.

GRI 406-1

No incident of discrimination has ever noticed in the Institute.

GRI 407

Freedom of association and the right to collective bargaining

All employees have the freedom of association and the right to collective bargaining. Through the Workers' Council, employees have the opportunity to participate in decision-making on issues related to their economic and social rights and interests. The representative of the Workers' Council participates in the regular work of the Institute's Supervisory Board and annual meetings of the Management where business plans are presented for the next period. On the Intranet there is a special section of the Workers' Council with information about the conclusions of the Works Council's meetings, valid contracts and news related to employee interests.

GRI 408

Child Labor

UN Global Compact principles

As a member of the KONČAR Group, the Institute participates in the United Nations Global Compact initiative for corporate social responsibility.

As one of the signers of the UN Global Compact, KONČAR has been actively supporting and promoting the UN GC 10 principles since 2007. This document also communicates the Institute's progress for UN GC and its active measures for the advancement of human rights, employment, corporate governance, environmental protection and fair business practices.

GRI 413

Communities

By exchanging knowledge and partnership, both scientific community and the Institute acquire new competencies, creating new opportunities for development and value added in the wider community.

The collaboration of the Institute and the scientific community has been fostered for many years through various activities and is constantly improving. Encouraging science and economy cooperation directs the scientific community to address scientific research topics that could bring benefits to the economy. It also demonstrates how the scientific community can contribute to the development of society not only through education but also through applied research for the sake of innovation.

Joint activities of the Institute and the scientific community:

- Partnership on joint scientific research projects
- Participation in the curriculum
- Mentoring, membership in professional commissions, boards, jury
- Education (graduate, postgraduate and specialist)
- Awarding the best students to three technical faculties
- Professional student and student practice, professional visits
- Exchange of knowledge from which scientific papers, conferences, expert meetings emerge.

The Institute invests in activities contributing to the sustainable development of the scientific community:

- applied scientific research
- innovations
- Inclusion of the scientific community in the development of the economy.

Connecting the economy with the scientific community is also strongly encouraged by the EU with a view of to transferring new technologies and knowledge from faculties to industry, aiming at improving the existing and developing new high technology products and services.

The Institute gains new knowledge by linking with the scientific community, encourages the publication of professional and scientific papers, exchanges the existing knowledge of scientists

	2018	2019	2020	2021	2022
Co-financed projects with scientific community	3	3	4	4	2
Published papers	18	41	17	24	14
Attendants of postgraduate doctoral studies	9	6	6	6	8
Defended PhD theses	1	3	0	0	1
Members of the Institute teaching at faculties	10	10	10	10	11

and new knowledge gained through research on concrete technical problems, innovation is being created and costs are reduced as European and national resources are used for research according to the needs of the economy.

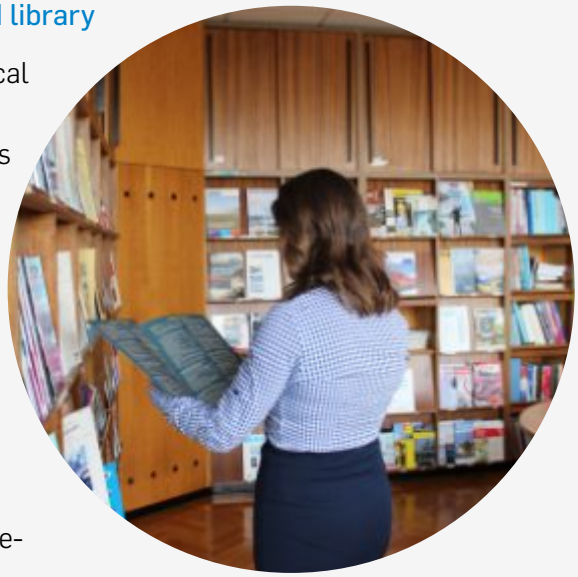
The impact of collaboration between the scientific community and the Institute can be seen in several aspects: material benefits in the final results of successfully implemented projects with industrial application, exchange of knowledge and education, and expert and scientific papers.

By joint work on research and development projects, the Institute and the scientific community jointly take the risk regarding project results, commit themselves to deadlines for implementation of the results, and responsibility for the development of the economy and society.

GRI 413-1

Operations with local community engagement, impact assessments and development programs

Information-documentation service (INDOK) and library



INDOK and the library share resources with the local and international community and provide access to information. They have a key role in ensuring access to information, supporting research and development, as well as in safeguarding and protecting professional knowledge.

INDOK has more than 20,000 printed professional books and more than 800 scientific and professional journals in the fields of electrical engineering, electronics, energy, transport and natural sciences. Users can access databases of scientific and professional e-books, e-proceedings, e-papers, PhD, MSc and BSc theses.

Support for engineering sciences and awards for best students

The Institute builds up partnership with the scientific community, develops and supports both professionally and financially organization and participation at scientific meetings, conferences and symposia that enable exchange of experiences and development of science, and also awards best students at three faculties of engineering. The Institute has been a supporting member of the Croatian Academy of Engineering (HATZ).

Awards for the best students

In 2022, as in every year, the Institute has financially awarded the best students at the Faculty of Electrical Engineering and Computing in Zagreb (Josip Lončar Award), and the Faculty of Chemical Engineering and Technology in Zagreb (Vjera Marjanović-Krajovan Award).

DIRA 2022 – 13th Graduate Workshop at the Faculty of Electrical Engineering and Computing

The 13th Graduate Workshop of the Department of Electronic Systems and Information Processing (ZESOI) took place at the Faculty of Electrical Engineering and Computing. The Institute has been a long-time active participant of the Workshop's economic council, awarding one of the best rated graduate theses presented at the workshop. DIRA is an annual meeting of graduates, teachers, and the ZESOI Economic Council, consisting of representatives from renowned businesses.

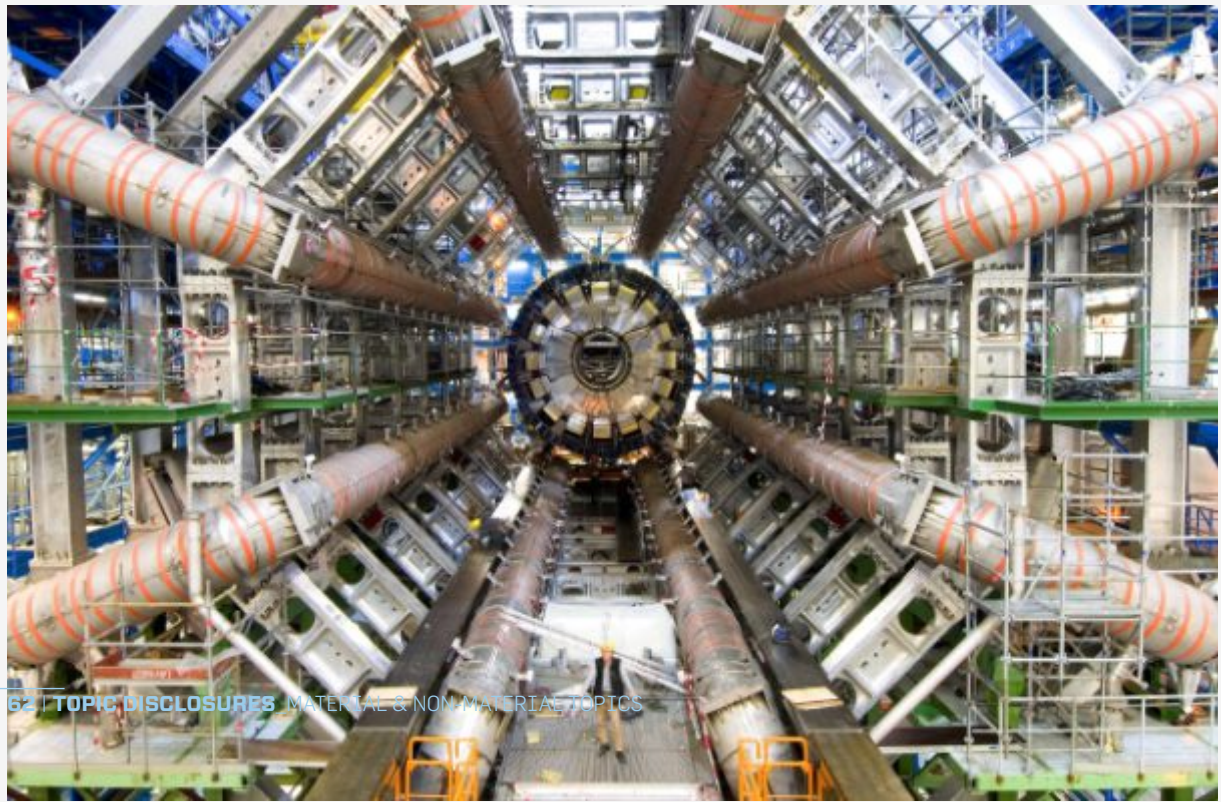
KONČAR as a partner of the TVZ Mc2 competition

In 2022, the Zagreb University of Applied Sciences held the TVZ Mc2 competition, Croatia's largest student competition in creating mobile, network and IoT solutions, which helps employers meet innovative and motivated students. KONČAR was a Senior Partner to the competition, and mentors from two KONČAR companies (Digital and Institute) helped the most ambitious students gain practical knowledge and further training.

Representatives of the Institute named for country-level cooperation with CERN

Croatia's Associate Membership status in CERN is extremely important, since it enables Croatian scientists to actively participate in scientific projects, and represents an opportunity for Croatian companies to compete as vendors for products and services in specific public procurement processes.

The Croatian Ministry of Science and Education therefore named Siniša Marijan, PhD, and Marina Penić Levada of the Institute as national industry contacts for CERN.



Practical training

In 2022 17 pupils and students successfully completed practical training. Under the guidance of expert mentors, they had the opportunity to acquire practical knowledge and skills. Mandatory training gives them the opportunity to take part in solving concrete every-day problems, and their teachers get feedback on knowledge and skills which the contemporary market expects from future engineers, what in turn enables better adaptation of the curriculum to current needs of industry and technology trends.

Visits of pupils and students

In 2022 the Institute hosted numerous groups of students and pupils from Croatia and surrounding countries. These, among others, included senior year students from the secondary School of Electrical Engineering Zagreb, and sophomore students from the secondary School of Mechanical Engineering Fran Bošnjaković, department for Mechatronics Technicians, as well as many other. In laboratories of the Institute they got familiar with production processes and up-to-date laboratory equipment. Practical knowledge and concrete solutions are the most important segments of successful training especially in engineering.

A visit from students from Belgium

During their 7-day study trip to Croatia, some fifteen students of industrial engineering at the HELMo Gramme University from Liège, one of the greatest universities of the French-speaking community in Belgium, visited the Institute Laboratory Center in March.

KONČAR's Volunteer Club – Reforestation of Grubišno Polje

KONČAR's volunteers participated in a corporate reforestation action in Grubišno Polje on Earth Day. About thirty volunteers, assisted by experts from the O2 project, helped create seed bombs with indigenous and non-invasive species, which were then released from drones onto the area to be reforested, about 10,000 square meters large. The primary species was the pedunculate oak, while others included beech, sycamore maple, birch, and ingredients that help improve the growth of saplings.

GRI standards are a globally accepted tool for sustainability and sustainable development reporting, and they are periodically revised to enable companies to communicate most appropriately the impacts of their economic, environmental, social and governance performance.

Set of modular GRI standard were created with a view to improving global comparability and quality of information, what ensures higher transparency and responsibility of the company.

GRI content index

Statement of use	KONČAR – Electrical Engineering Institute Ltd has reported in accordance with the GRI Standards for the period 1.1.2022 – 31.12.2022
GRI 1 used	GRI 1 Foundation 2021
Applicable GRI Sector Standard(s)	-

No.	Disclosure	Location	Omission	SDG	UN GC Principle
GRI 2 General Disclosures 2021					
THE ORGANIZATION AND ITS REPORTING PRACTICES					
2-1	Organizational details	6-9			
2-2	Entities included in the organization's sustainability reporting	-	Not applicable		
2-3	Reporting period, frequency and contact point	10			
2-4	Restatements of information	10			
2-5	External assurance	-	Not implemented		
ACTIVITIES AND WORKERS					
2-6	Activities, value chain and other business relationships	11-24		8, 9, 11, 7	1, 9
2-7	Employees	25			
2-8	Workers who are not employees	25			
GOVERNANCE					
2-9	Governance structure and composition	26			
2-10	Nomination and selection of the highest governance body	26			
2-11	Chair of the highest governance body	26			
2-12	Role of the highest governance body in overseeing the management of impacts	26			
2-13	Delegation of responsibility for managing impacts	26			
2-14	Role of the highest governance body in sustainability reporting	7			
2-15	Conflicts of interest	-	Regulations on preventing conflicts of interest are defined in the Constitution of the Managing Board		
2-16	Communication of critical concerns	26			
2-17	Collective knowledge of the highest governance body	54			
2-18	Evaluation of the performance of the highest governance body		Defined by the Constitution of the Managing Board		
2-19	Remuneration policies	-	Data is confidential		
2-20	Process to determine remuneration	-	Data is confidential		
2-21	Annual total compensation ratio	-	Data is confidential		
STRATEGY, POLICIES AND PRACTICES					
2-22	Statement on sustainable development strategy	1,2,28		4, 9	
2-23	Policy commitments	28		7	7, 10
2-24	Embedding policy commitments	28			
2-25	Processes to remediate negative impacts	30			
2-26	Mechanisms for seeking advice and raising concerns	30			
2-27	Compliance with laws and regulations	30			
2-28	Membership associations	30			
STAKEHOLDER ENGAGEMENT					
2-29	Approach to stakeholder engagement	31			
2-30	Collective bargaining agreements	34		5	3
GRI 3: Material Topics 2021					
3-1	Process to determine material topics	36			
3-2	List of material topics	37			
3-3	Management of material topics	37,44,46-48,50,52,53,57,60			

No.	Disclosure	Location	Omission	SDG	UN GC Principle
GRI 201 Economic performance 2016					
201-1	Direct economic value generated and distributed	38		8	
201-2	Financial implications and other risks and opportunities due to climate change	42		9	9
201-3	Defined benefit plan obligations and other retirement plans	43		8	1
201-4	Financial assistance received from government	43			
GRI 203 Indirect economic impacts 2016					
203-1	Infrastructure investments and services supported	44			
203-2	Significant indirect economic impacts	45		9	9
GRI 302 Energy 2016					
302-1	Energy consumption within the organization	48		7, 12	7, 8
GRI 305 Emission 2016					
305-1	Direct (Scope 1) GHG emissions	48			
305-2	Energy indirect (Scope 2) GHG emissions	48		12	8
GRI 306 Waste 2020					
306-1	Waste generation and significant waste-related impacts	49		12	8
306-2	Management of significant waste-related impacts	49			
GRI 401 Employment 2016					
401-1	New employee hires and employee turnover	50		8	
401-2	Benefits provided to full-time employees that are not provided to temporary or parttime employees	51		5	1, 6
401-3	Parental leave	51			1
GRI 403 Occupational health and safety 2018					
403-1	Occupational health and safety management system	52			
403-2	Hazard identification, risk assessment, and incident investigation	52		12	
403-3	Occupational health services	52			
403-4	Worker participation, consultation, and communication on occupational health and safety	52			
403-5	Worker training on occupational health and safety	52			
403-6	Promotion of worker health	52			
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	52			
403-8	Workers covered by an occupational health and safety management system	52			
403-9	Work-related injuries	53			
403-10	Work-related ill health	53			
GRI 404 Training and education 2016					
404-1	Average hours of training per year per employee	54			
404-2	Programs for upgrading employee skills and transition assistance programs	54		4, 8	1, 9
404-3	Percentage of employees receiving regular performance and career development reviews	56			
GRI 405 Diversity and equal opportunity 2016					
405-1	Diversity of governance bodies and employees	58		5, 8	6
405-2	Ratio of basic salary and remuneration of women to men	58			
GRI 413 Local Communities 2016					
413-1	Operations with local community engagement, impact assessments, and development programs	61		4, 11	9
Non-material Topics					
GRI 205 Anti-corruption 2016					
205-2	Communication and training about anti-corruption policies and procedures	46			10, 2
205-3	Confirmed incidents of corruption and actions taken	46			
GRI 206 Anti-competitive Behavior 2016					
206-1	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	61			
GRI 406 Non-discrimination 2016					
406-1	Incidents of discrimination and corrective actions taken	59			6
GRI 407 Freedom of Association and Collective Bargaining 2016					
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	59			3
GRI 408 Child Labor 2016					
408-1	Operations and suppliers at significant risk for incidents of child labor	59			4, 5

Organisation

KONČAR Group

PARENT COMPANY

- KONČAR – ELECTRICAL INDUSTRY

BUSINESS SEGMENTS

- POWER GENERATION
- POWER TRANSMISSION AND DISTRIBUTION
- RAIL SOLUTIONS AND INFRASTRUCTURE
- DIGITAL SOLUTIONS AND PLATFORMS

COMPANIES

- SWITCHGEAR
- DALEKOVOD*
- DIGITAL
- DISTRIBUTION AND SPECIAL TRANSFORMERS
- ELECTRIC VEHICLES
- ELECTRONICS AND INFORMATICS
- GENERATORS AND MOTORS
- ELECTRICAL ENGINEERING INSTITUTE
- ENGINEERING CO.
- MOTORS AND ELECTRICAL SYSTEMS
- METAL STRUCTURES
- INSTRUMENT TRANSFORMERS
- RENEWABLE SOURCES

*from 1 April 2022

AFFILIATED COMPANY

- POWER TRANSFORMERS

JOINT SERVICE CENTER

- INFRASTRUCTURE AND SERVICES

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