Company presentation
➢ **General Info**

- Established: 1995
- QMS: Certified
- Main Office: Třebíč, Czech Republic
- ISO 9001, ISO 14001,
- Basic capital: 2 mil. EUR
- ISO 27001, ISO 20000-1,
- Turnover 2010: 16 mil. EUR
- OHSAS 18001
- Staff: 203

➢ **Main Areas**

- Design, engineering, supplies and services for nuclear power
- Ionizing radiation monitoring and radiation control
- Laboratory systems and technology
- Industrial automation
Divisions

- Nuclear Power
- Project and Engineering
- Radiometric Systems
- Detectors Technology
- Scientific Instruments
- Laboratory Technology
- Industrial Automation
- Mechanical Production
- Software Development
ENVINET in the Czech Republic and Slovakia
**Nuclear Power**

**Supply, service and complex support**

- Spectroscopic measurement and evaluation of continuous and laboratory systems
- Measurement of noble gases activity in the ventilation stack
- Spectroscopic “in-situ” measurement in primary circuit
- Gammaspectroscopic detection of steam generator leakages based on N16 measurement
- The tightness check of hermetic containment caps at Temelín NPP

**Implementation performance**

- Measurement of RA waste from Dukovany and Temelín NPPs
- Sanitary loops operation in restricted area at Dukovany NPP
- Collection of chemical and radiochemical samples
- Shift radiochemical control in primary and secondary circuits
- Analyses of RA concentrates and samples from RA waste treatment
- Radiochemical analysis of water samples, radionuclides determination
- Application of algaecide preparations to suppress the growth of algae in cooling towers

**Preventive and operational maintenance**

- Systems for continuous measurement of water chemical treatment, and primary and secondary circuit chemical parameters
- Spectrometric lines, technological PC, laboratory technology
- Information centers and training centers
- Camera systems of refueling machine for nuclear fuel
Nuclear Power

Radioactive waste characterization

Workplace situated at Dukovany NPP - characterization of all radioactive waste originating from Dukovany and Temelín NPPs

Authorized by State Office for Nuclear Safety (SÚJB) for Free-release measurements of radioactive waste

Shift ENVINET Stuff at Dukovany NPP (outsourced)

- Sanitary loops operation
- Shift radiochemical control in primary and secondary circuits
Detectors Manufacturing and Service

Ionizing radiation detectors

- Production of components and assembly of Scintillation crystal NaI(Tl) and Plastic scintillator

  ✓ Unique manufacturing in the Czech Republic
  ✓ Successful sales in foreign markets
  ✓ Many years of production experience

- Service of ionizing radiation detectors

  Semiconductor detectors, spectrometric equipment and lines: installation, recovery, calibration and service

  ✓ Unique service in the Czech Republic and Slovakia
  ✓ Many years of service and repair experience

  ✓ Main reference: national radiation monitoring and early warning system technical support and service
Scientific Instrumentation – exclusive representative in Czech Republic and Slovakia

✓ Ionizing radiation spectrometry – ORTEC
✓ Radiometry and dosimetry – Thermo Scientific
✓ Radiology – Sun Nuclear
✓ Collection of aerosols – Senya OY
✓ Geophysical systems, air spectrometry – Pico Envirotec
✓ Systems for measurement and characterization – ANTECH
✓ Electrochemistry - Solartron Analytical, Princeton Applied Research
✓ Signal processing - Signal Recovery
Information Systems

✓ Development of customized information systems

✓ Focus on nuclear power and industry
  - deep knowledge of metrology, radiometry, chemistry, non-destructive inspection, controlled aging, waste processing and disposal

✓ Customized solutions
  - Waste management - WASTIS (Radioactive Waste Repository Authority, Nuclear Research Institute, Dukovany and Temelín NPPs)
  - Registration of nuclear materials and nuclear fuel – MBA (supplied for ČEZ, a. s., recently awarded by SE a.s. and JAVYS, a.s.)
  - Process monitoring - INDI (recommended by IAEA)
  - Project management – TIPOM (recommended by IAEA)
  - Controlled aging – Information system for Long Term Operation (LTO) support
  - IS for production data visualization and presentation (ALCZ, BOSCH, Visteon)
  - Metrological data management – METROLOGY
  - Radiometric laboratory process covering - RADIS
  - IS for gammaspectroscopic analysis - GAMWIN
  - IS for crisis coordination centre SÚJB - MONRAS
Laboratory Systems and Technology

- All types of laboratories (chemistry, radiochemistry, radiometry, metrology, etc.)

- Focus on complex supplies - including furniture, fume hoods, equipment, connection to networks, IS for laboratory data management (LIMS), users training

- Support activities
  - Measurement methods
  - Metrological verification, calibration, testing
  - Preparation of the documents required for accreditation

- Selected references:
  - Czech Power Company (ČEZ, a. s.) – chemical, radiochemical, metrological laboratories and Dukovany and Temelín NPPs’ environment radiation monitoring laboratories
  - Institute of Molecular Genetics of Academy of Sciences
  - Faculty of Nuclear Sciences and Physical Engineering, Czech Technical University
  - State Office for Nuclear Safety (SÚJB), National Radiation Protection Institute (SÚRO)
  - PET center Nuclear Research Institute – project 2011, general technology supplier
Industrial Automation

Design, manufacturing, installation and servicing
• Assembly, inspection and production automats and semi-automats
• Camera measuring and testing automats
• Production line transfer-systems
• Operated assembly workstations
• Complete intelligent production lines
• Collection, evaluation and visualization of data
• Measuring systems for characterization of RA waste
• Lead shielding, special racks and trolleys, collimators

Technology
• Top assembly technology components, tires and control systems by BOSCH REXROTH, SIEMENS, SICK, FESTO
• Mechanical design of the system DSS SolidWorks and CATIA
• Electrical design in E-Plan system
• Control software for PLC SIEMENS (Simatic), BOSCH and MITSUBISHI
Czech National Personal Dosimetry Service

Subsidiary (Prague) with its own calibration laboratory

- Official measurements of ionizing radiation and neutron doses
- Dose standardization and evaluation of personal dosimeters (electronic, film, thermoluminescence and neutron dosimeters)
International activities of ENVINET
Romania, Cernavoda NPP

- Supply and implementation of process evaluation information system INDI based on the optional indicators system.

- Supply of laboratory equipment for characterization of radioactive waste and technical support.

- Long-term contract for the technical Support of radioactive waste management system.

- Supply of system for gamma-spectrometric measurements of noble gases activity in the ventilation stack.
Italy, EC JRC Ispra
(European Commission Joint Research Center)

“Radiological analyses for pre-decommissioning radiological characterization of shut down nuclear facilities at the EC JRC Ispra site”

- Characterization of research reactors, hot cells, laboratories
- Destructive and non-destructive analyses
- RadScan 800 gamma camera – applied in gamma radiation detection
Lithuania, Ignalina NPP

„Procurement of tools and equipment for radiological characterization“
„Free release measurement facility“

- Laboratory equipment for radioactive waste characterization
- Stationary system for free release measurement of radioactive waste
- Mobile system for radioactive waste characterization
Finland, STUK  
(State Office for Nuclear Safety)
- Supply and implementation of process evaluation information system INDI based on the optional indicators system.

Netherlands, Borssele NPP
- Supply and implementation of process evaluation information system INDI based on the optional indicators system.

Armenia, Metsamor NPP  
(International Atomic Energy Agency project)
- Supply and installation of measuring instruments, radiochemical procedures, database system for archiving and presentation of measured data, training of radiochemical laboratory personnel.
Russia, MosNPO RADON

- System for characterization of radioactive waste in Moscow region
- Stationary system for automatic measurement of waste in various packages
- Measurement of non-standard objects
Ukraine, Rivne NPP

- Development, manufacture and delivery of stationary and mobile systems for the solid radioactive waste characterization.

Ukraine, Zaporozhye NPP

- Equipment for solid radioactive waste treatment – Chemical and radiological monitoring of emissions from incinerator.
Bulgaria, Kozloduy NPP

- On site measuring equipment for radiological inventory in frame of decommissioning of Kozloduy NPP Units 1-4.

Supply of equipment, installation, documentation, training of personnel.
Contact

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Thank you for your attention!