



*We help to
improve the
sustainability
of bioscience
laboratory
operations.*

eLabNext and sustainability

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Bioscience research, development, and education are good things, but like all activities, they consume energy, labor, materials, and storage space, and contribute to carbon dioxide emissions, pollution, and other waste streams. eLabNext helps our customers to improve the sustainability of their bioscience laboratory operations. We also monitor and manage our own performance on measures of sustainability.

Bioscience Laboratory Operations

eLabNext offers modules that work in harmony as an integrated Laboratory Information Management System.

Electronic Lab Notebook handles the essential tasks of documenting, organizing, storing, searching, retrieving, and archiving data and information related to experiments.

Sample Management enables the tracking of every sample, specimen, consumable, chemical, or instrument in the laboratory. It can print and read barcode labels for the samples or use existing barcodes. Sample Management is also available as a stand-alone system, eLabInventory.

The 1987 Brundtland Report to the United Nations said: “Humanity has the ability to make development sustainable – to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs.” It was well-said, but as awareness and experience of climate change has grown, so has the urgency to reduce not just emissions but the absolute levels of greenhouse gases in the atmosphere. *Our definition of sustainability must include constant improvement toward a future state in which human beings, all living things, and the earth itself should not just survive the insults of man and nature, but prosper. We think of it as the sustainability of progress.*

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The way our software helps

The space in which eLabNext works is the bioscience laboratory. Bioscience labs can contribute to sustainable progress by reducing the consumption of energy, labor, materials, and space; reducing the emission of greenhouse gases, pollution, and waste products; and improving the production of the lab, in terms of productivity and quality of research results.





Here is how we at eLabNext believe our services help:

Consumption

- Jeremy Bloxham, Dean of Science at Harvard University, is quoted in its Green Labs Guide: “Energy use varies widely across the University, from energy-dense laboratories to offices, to student houses, each posing very different challenges . . .” In addition to power for equipment, instruments, computers, and lighting, much of the energy is consumed for heating, ventilation, and air conditioning, generally exacerbated by the many fume hoods that not only need powering but remove conditioned air from the lab.
- Sample Management helps to minimize and manage the contents of freezers, the most prodigious consumers of energy in most labs.
- Electronic Lab Notebook simplifies and automates the documentation of experiments, reducing the labor required and eliminating the need for paper and physical filing systems.
- Less laboratory space needs to be dedicated to filing, but Electronic Lab Notebook and Sample Management go much further by reducing the space required for people in the lab. In the past, scientists and technicians would work in the lab to record experimental results, analyze them, and document them. Electronic Lab Notebook accepts results directly from instruments in the lab, and the work of analyzing, interpreting, and documenting them can now be performed elsewhere - in the scientist’s office or even at home, as demonstrated conclusively during the recent pandemic. Fewer staff can sometimes keep an entire lab running safely and efficiently.

Emission

All of the above reductions in energy consumption contribute to the all-important reduction of carbon dioxide emissions as long as energy for the lab is thermally generated, as it most commonly is and will be for some time. Solar photovoltaics are rapidly becoming cost-competitive with thermal power generation. Harvard, for example, has climate action goals to be fossil fuel-free by 2050 and fossil fuel-neutral by 2026.

Production

- Electronic Lab Notebook makes documenting experiments faster, more accurate, and more complete by interfacing directly with instruments and facilitating immediate data entry. It streamlines workflow, saves and reuses protocols, and encourages teamwork and collaboration. Results are more robust, reliable, and reproducible. Higher quality at lower cost represents markedly better value.
- Sample Management helps to eliminate lost samples and specimens, and ensures that samples can be retrieved quickly and efficiently, without tedious searches to look for missing tubes. Its complete audit trail ensures compliance and assists in locating missing samples.



Bio-ITech Operations

Though our offices in Groningen, The Netherlands, and Cambridge, Massachusetts are relatively small, we track and manage our own energy consumption and waste, and the carbon emissions associated with business travel. We use online meeting tools to avoid travel for sales and support activities whenever possible, establishing new standards of communication excellence during the recent coronavirus pandemic.

Eppendorf AG Operations

eLabNext is a brand of Bio-ITech BV, part of Eppendorf group. Eppendorf is a family-owned company, established in Hamburg, Germany in 1945, with over 3,600 employees throughout the world. It provides bioscience laboratories in industry and academe with equipment, consumables, software, and services.

Eppendorf AG is certified according to ISO 14001 and thus fulfills what are currently the highest possible standards. It takes an integrated view of all company processes from product development to manufacturing and sales, through to disposal at the end of a product's useful life. Every element of its logistics chain is organized and optimized according to sustainability criteria, including suppliers and sales partners around the world.



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All of our product specialists have a scientific background and are happy to discuss your needs. Schedule a demo for a free, no-obligation product demonstration.

www.elabnext.com