Data4 and APL Data Center unveil the first comprehensive environmental analysis of a data center's life cycle

With the publication of a white paper detailing all aspects of a data center's environmental profile, Data4 and APL Data Center highlight the real impact of a data center and set a new standard of transparency for the industry.

Paris, January 14th 2026 - Data4, European leader in data centers, and APL Data Center, France's leading data center design and engineering consultancy, today unveil the world's first white paper detailing the Environmental Life Cycle Assessment (LCA) of a data center. By publishing the comprehensive environmental profile of one of its 5 MW data centers, based on the scientific reference methodology, Data4 is taking a decisive step toward greater transparency and a more sustainable digital future, inviting the entire ecosystem to adopt more rigorous impact measurement.

With the explosion in AI demand and the development of data center projects worldwide, the environmental impact of data center installations is the focus of attention. While public debate often focuses on the electricity and water consumption of these essential infrastructures of the digital economy, this comprehensive analysis shows that the reality is far more complex.

This exclusive white paper reveals that major opportunities for action lie in previously underestimated aspects, such as the choice of construction materials or energy sources. Based on international ISO 14040 and 14044 standards, the study measures the environmental footprint across the entire life cycle: from raw material extraction to construction, operation, and eventual dismantling.

The findings of the study (excluding the servers) are fundamental for the data center sector. They show that the **production of equipment and materials (including concrete and steel) accounts for 39% of the carbon footprint over 20 years, which is almost as significant as operation (48%).** The analysis also reveals that the direct **water consumption of the data center analyzed is minimal (less than 0.1%)**, with the major water impact being indirectly linked to electricity production. These scientific data confirm Data4's strategy: choosing carbon-free energy, low-carbon design, and cooling techniques are the most effective levers for reducing the overall footprint of digital technology.

"*This white paper embodies our deep conviction: we can only improve what we understand and therefore what we measure comprehensively. As a European leader, it is our responsibility to move from a partial view to a complete and scientific understanding of our impact*," says **Linda Lescuyer, Head of Environment & Innovation, Data4**. "*We are publishing this analysis in complete transparency, not only to guide our own eco-design actions, but also to encourage the entire industry to go beyond the usual indicators. A sustainable digital future is not only a statement; it must be built, piece by piece, on a scientific basis. This is a call for a collective action for the entire ecosystem.*"

"*The data center industry is facing a growing imperative: controlling its environmental footprint. As experts in data centers, simulations, and energy optimization, we know that a rigorous approach, incorporating Life Cycle Assessment (LCA) and a detailed carbon footprint assessment, is essential to identifying effective levers for action. This work allows us to go beyond a declarative approach and place environmental performance at the heart of design choices. With this in mind, partnerships such as the one with Data4 are crucial for pooling our knowledge and working together to develop more sustainable and resilient infrastructures that can meet the challenges of our time*," concludes **Thomas Martin, Deputy CTO, Head of Sustainability & Innovation at APL Data Center.**

This white paper is part of the group's "Data4Good" program, which has already implemented concrete actions based on this approach: use of low-carbon concrete, renewable energy contracts (PPAs), and design of waterless cooling systems that are 25 times more efficient than the industry average.

A short educational version and long scientific version of the whitepaper are available online: data4group.com/en/resources

About Data4

Data4 is a major European operator and investor in the data center market. The Group finances, designs, builds and operates its own data centers. Data4 Group has pioneered an ultra-connected, resilient and sustainable data center campus model, with the aim of supporting its customers' digital growth over the long term by providing them with scalable and secure hosting solutions for their IT servers, ranging from a single rack to a dedicated building. The Group is committed to a proactive approach to sustainable pro through its Data4 Good program, which is based on 4 main pillars: environment, people, community and governance. Data4 Group operates some of the most powerful data center campuses in Europe, with land and electricity reserves that are unique on the European market. Data4's data centers in France, Italy, Spain, Poland, Germany and now Greece are home to international cloud operators and major telecoms providers, as well as innovative tech companies and multinationals. For more information: data4group.com

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About APL Data Center

Founded in 1983, APL is a company specializing in consulting, design-build engineering, and data center operations. Through its Organic Design mission, APL is committed to developing data centers in harmony with their environment, so that the proliferation of digital infrastructure is compatible with sustainable regional development. Its services are structured around four activities: data center consulting and engineering, IT consulting and engineering, maintenance and operation, and responsible digital technology.

APL is accredited as a "Tier Designer" and "Operations Specialist" by the Uptime Institute and has been awarded the gold medal in the Ecovadis CSR ranking. APL has carried out several thousand projects and assignments for companies such as Air France, BNP Paribas, Euro Information, Crédit Agricole, DATA4, Dataxion, Econocom, Equinix, Groupama, Casino Group, Digital Realty, Macif, Orange, Sigma Informatiques, SNCF, Telehouse, and numerous ministries and public entities.

Based in Paris (headquarters), Lyon, Marseille, Bordeaux, Toulouse, Rennes, Lausanne, Milan, and Madrid, the APL group generated revenue of €62.3 million in 2024, with 260 employees, and is expanding its activities in Europe and Africa.

For more information: www.apl-data center.com

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