# Sustainability Innovation's new frontier

Today, sustainability is starting to transform laboratories and change the way researchers and scientists approach products, technologies, processes, and supply chains.

The key to progress, is innovation.



## But going green can be challenging, especially in a scientific world

At a time of unprecedented scientific opportunity driven by advances in technology across engineering, physics, bioagriculture, and biomedicine, among others, it's no surprise that laboratories, at the forefront of scientific acceleration, face unique challenges when it comes to achieving sustainability goals.

The average laboratory consumes more energy per square foot than:1

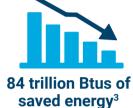


A hospital<sup>2,3</sup>



**Commercial and institutional** buildings such as offices and retail complexes<sup>2,3</sup>

The U.S. Environmental Protection Agency estimates that reducing laboratory energy use by 30% would reduce US national energy consumption by:







### What matters most in laboratories

of laboratories surveyed in a global lab manager's survey have **sustainability goals** in place<sup>4</sup>

**Over half** have sustainability goals in place when designing workflows



Other important 'green' factors identified when setting sustainability goals



Reducing water consumption



Reducing energy consumption



Reducing waste



recycling

...all while optimizing workflow, increasing productivity, lowering costs and ensuring green purchasing decisions as well as making the lab a safer, healthier environment to work in.

### Sustainability through innovation

Whether our innovations are helping customers keep food supplies safe, reduce air or water pollution; find alternative energy sources or fight cancer and other diseases, our goal is to make a difference.

Our customers' challenges, including environmental considerations, are the drivers for our innovation, which stems from careful consideration of everything from our suppliers and materials to product innovations and careful packaging. Below are Agilent innovations and initiatives that have the potential to:\*

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### **Ensure adequate recycling**

- Smarter Packaging
- Instrument Trade in / Buy Back



# Advance green purchasing

- Smarter Packaging
- **Energy and Water Management**
- Innovative Technology Certified Pre-Owned Instruments



### **Reduce energy consumption**

- Intuvo 9000 GC System
- 5110 ICP-OES
- 4210 MP-AES
- Cary 60 UV-Vis



**Reduce emissions** 



### Reduce hazardous waste

- IDP Dry Scroll Pumps
- InfinityLab Stay Safe Caps
  - InfinityLab SFC Solutions Advanced Valve System (AVS) for
  - 5110 ICP-OES and 4210 MP-AES



# **Reduce water consumption**

OneNeb Nebulizer Technology

4210 MP-AES



### Reduce non-hazardous waste

InfinityLab Stay Safe Caps





# **Reduce gas consumption**

GC High Efficiency Columns

# **Embedding sustainability into our organisation**



At Agilent, we are committed to delivering trusted answers that improve lives. Working towards sustainability is an integral part of how we conduct business and respond to the greatest challenges of our customers in their quest to move boundaries in scientific research and discovery

It is our responsibility to understand our impact on the environment and to commit to continuous innovation toward sustainability for ourselves, our customers and our planet.

You can learn more about Agilent's sustainability efforts in our corporate citizenship report at https://www.agilent.com/environment/environment.shtml

- The results of reduction in water and energy consumption, hazardous waste and emissions and improvement in recycling depend upon current volumes and output levels
- $Laboratories\ for\ the\ 21st\ Century.\ Updated\ 2017-Labs21\ Benchmarking\ Tool.\ http://labs21benchmarking.lbl.gov/labs21benchmarking\ Laboratories\ for\ the\ 21st\ Century.\ Updated\ 2017-Labs21\ Benchmarking\ Tool.\ http://labs21benchmarking.lbl.gov/labs21benchmarking\ Laboratories\ for\ the\ 21st\ Century.\ Updated\ 2017-Labs21\ Benchmarking\ Laboratories\ for\ Labs21\ Benchmarking\ Laboratories\ for\ Labs21\ Benchmarking\ Laboratories\ for\ Labs221\ Benchmarking\ La$ Energy Information Administration (EiA) Commercial Buildings Energy Consumption Survey (CBECS). https://www.eia.gov/consumption/commercial/about.php
- International Institute for Sustainable Laboratories. Laboratories for the 21st Century. Toolkit. http://www.i2sl.org/documents/toolkit/lowenergy\_508.pdf Understanding Key Challenges and Pain Points in the Global Laboratory Market Survey 2017. Agilent data on file

