

where
science meets **humanity**™

**AEG Boston & Mass EV Stakeholder Challenge:
Mobility & Transportation**
Jennifer Wright, Director EHS&S, Biogen, Inc.

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We Are Pioneers in Neuroscience

Biogen continues to innovate in MS, launch new therapies and advance a robust portfolio of treatment options that support patients with different needs

1978 Founded

2 Nobel Laureates
part of the Founders

102 Countries receive
our products

100% Renewable
power
commitment

2 Manufacturing sites in North Carolina and Switzerland**

8,900+ Employees
Worldwide*

\$14.4B in revenues in
2019

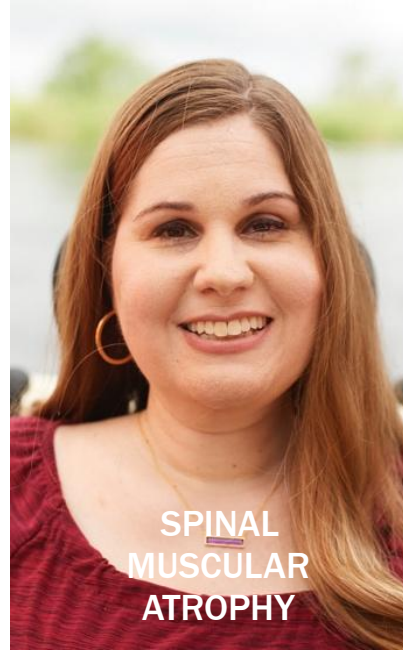
263k L of bioreactor
capacity worldwide*

39 Direct affiliate markets

* Includes anticipated capacity of Solothurn, Switzerland, which is expected to be partially operational during the first half of 2021.

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Neurological disorders are



#1

CAUSE OF DISABILITY
WORLDWIDE

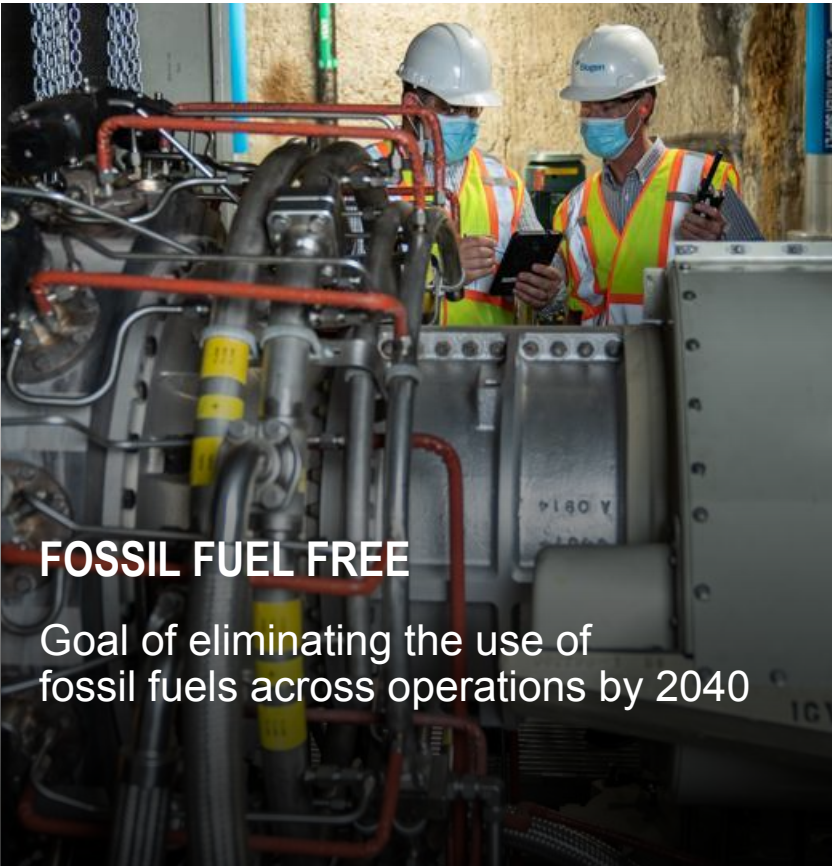
#2

CAUSE OF DEATHS
WORLDWIDE

Source: Lancet Neurology, 2017; DRG 2017, American Heart Association, American Parkinson's Disease Association, The ALS Association.

Healthy Climate, Healthy Lives™

Biogen to Invest \$250 Million over 20 Years to Eliminate its Use of Fossil Fuels and Improve Public Health



FOSSIL FUEL FREE

Goal of eliminating the use of fossil fuels across operations by 2040



COLLABORATIONS WITH GLOBAL LEADERS

Working with MIT, the Harvard T.H. Chan School of Public Health, and World Business Council for Sustainable Development, among others



EMPLOYEE ENGAGEMENT

Encouraging employees to innovate at work and volunteer in the community
Supporting employees to reduce their use of fossil fuels at home

**ELECTRIC
VEHICLE**



**CHARGING
STATION**

Goals for Fleet

Transition global fleet of ~2000 vehicles, and MA commuter buses to electric by 2025

Deploy infrastructure for workplace and home charging at more than 30 corporate locations



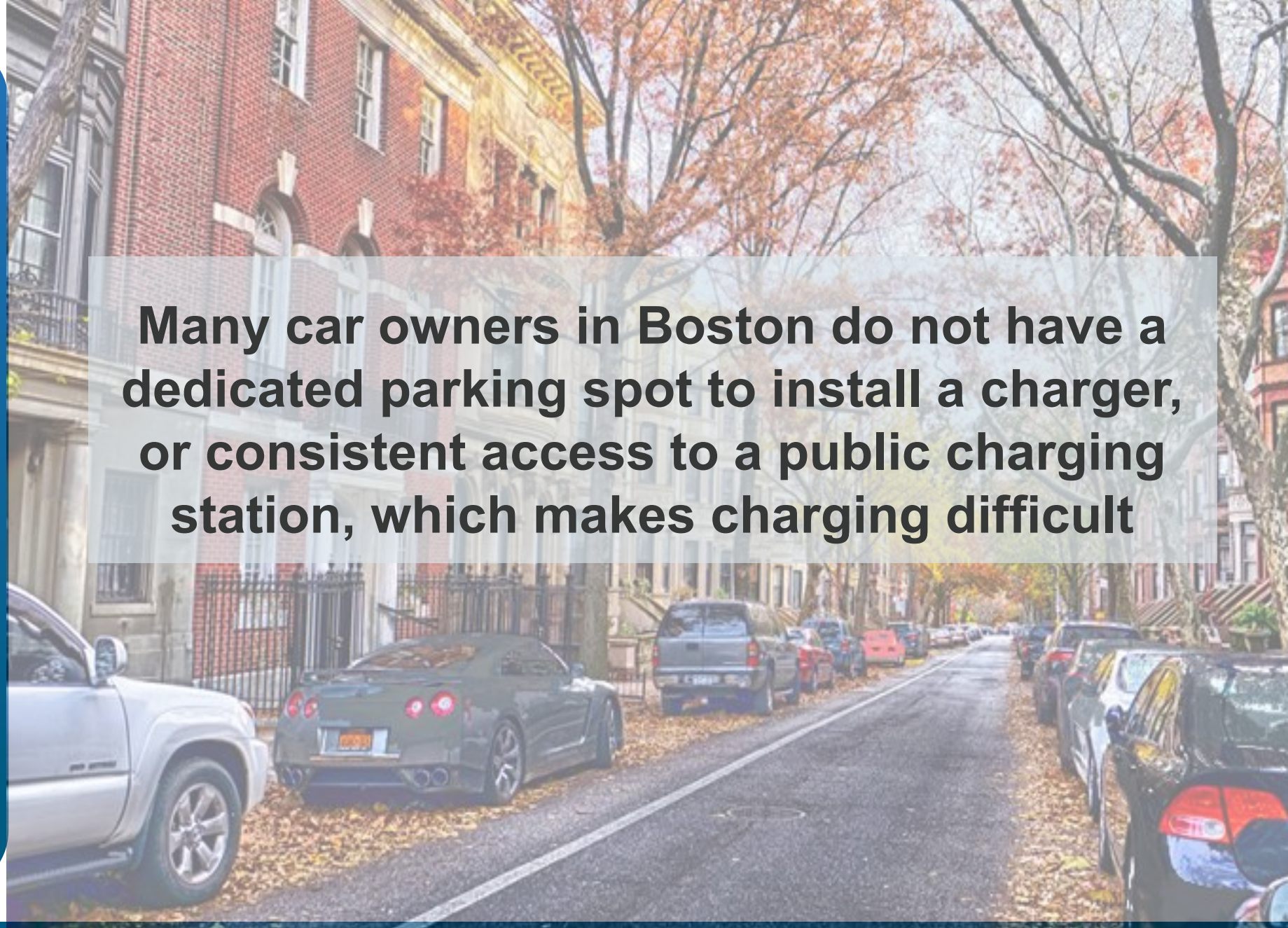
The Challenge...



Problem Statement



Many car owners in Boston do not have a dedicated parking spot to install a charger, or consistent access to a public charging station, which makes charging difficult



Key Obstacles



1. **Can't charge overnight or while at home (where most charging happens)**
2. **Public charging spot too far from home (particularly in lower-income communities)**
3. **Public charging spot not dedicated (not available when needed)**
4. **Public charging networks are cost-prohibitive for lower income drivers**

What are we doing?



- Biogen will continue to install rapid chargers at its Cambridge and Weston locations to help meet employees' charging needs (charge at work for free)
- Biogen is active with the Environmental League of Massachusetts and others to push for solutions – such as advocacy for Northeast & Mid-Atlantic states to engage in the Transportation and Climate Initiative (TCI)
- Biogen has joined the EV100 and is working to catalyze change, including access to charging, at scale
- Biogen committed to a ZEV fleet by 2025, to join others in increasing demand for ZEVs and charging infrastructure

Potential Impacts of Action or Inaction

Benefits of Action...

- Accelerates the transition to ZEVs in Boston
- Reduces noise and air pollution in the city and surrounding communities
- Contributes to Boston's climate goal of being carbon neutral by 2050
- Potential ripple effect to other cities (leadership)
- Attracts top talent to live in Boston



Consequences of inaction...

- Impedes transition to ZEVs in Boston
- Transportation contributes to climate change
- Negative public health impacts (potential links to cardiopulmonary diseases and even brain health)
- Perceived lack of leadership from progressive technology hub like Boston
- ZEVs perceived negatively by consumers

Final Statement



Regarding the electrification of fleets to achieve clean energy goals, the most critical obstacle to overcome is charging in highly urban areas like Boston



THANK YOU!

