Reporting on Sustainability Performance

BGEN 445- Sustainability Reporting

UNIVERSITY OF MONTANA
COLLEGE OF BUSINESS

Measurement

“You cannot manage what you do not measure”

We dub products, cities, activities, and almost anything under the sun “sustainable” with no quantification that might allow independent verification

Developing Sustainability Metrics

Developing sustainability metrics is an evolutionary process, an objective to work toward and use for accountability

Sustainability metrics need to be prioritized so that it is possible to focus on those that are most critical now

Social sustainability metrics may be the most difficult to quantify

Global Reporting Initiative (GRI)

- The Global Reporting Initiative is an international not-for-profit organization that has developed a comprehensive **sustainability reporting framework**
- Sustainability reports created using the GRI framework provide information about the economic, environmental, and social impacts caused by an organization's activities
- The GRI Standards have become the global standard for sustainability reporting

Another Way to Look at Sustainability Reporting

Businesses operate in a world undergoing unprecedented environmental and social changes

Sustainability reporting is the means by which a business can understand both its exposure to the risks of these changes and its potential to profit from the new commercial opportunities

The simple reality is that sustainability reporting appears to be standard business practice around the world

Environmental Reporting

- Environmental reporting includes reporting on:
  - Greenhouse Gas Emissions
  - Materials
  - Energy
  - Water
  - Biodiversity
  - Waste
  - Environmental Compliance
  - Supplier Environmental Assessment

The Impact of Large Organizations on the Environment and Society

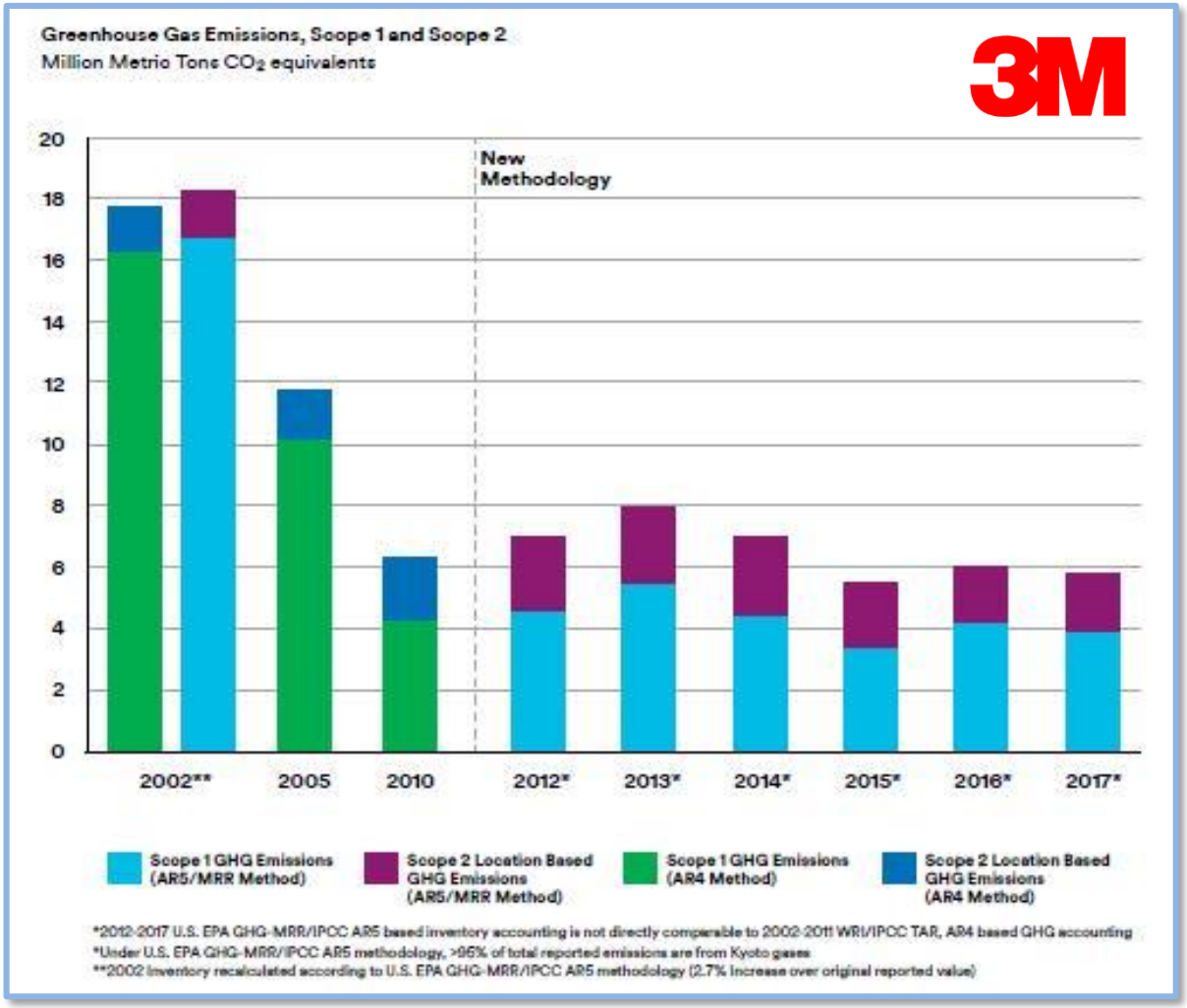
- Large organizations have a **huge impact** on the environment and society
- For example, in 2018:

– **3M produced 230 thousand metric tonnes of waste!**

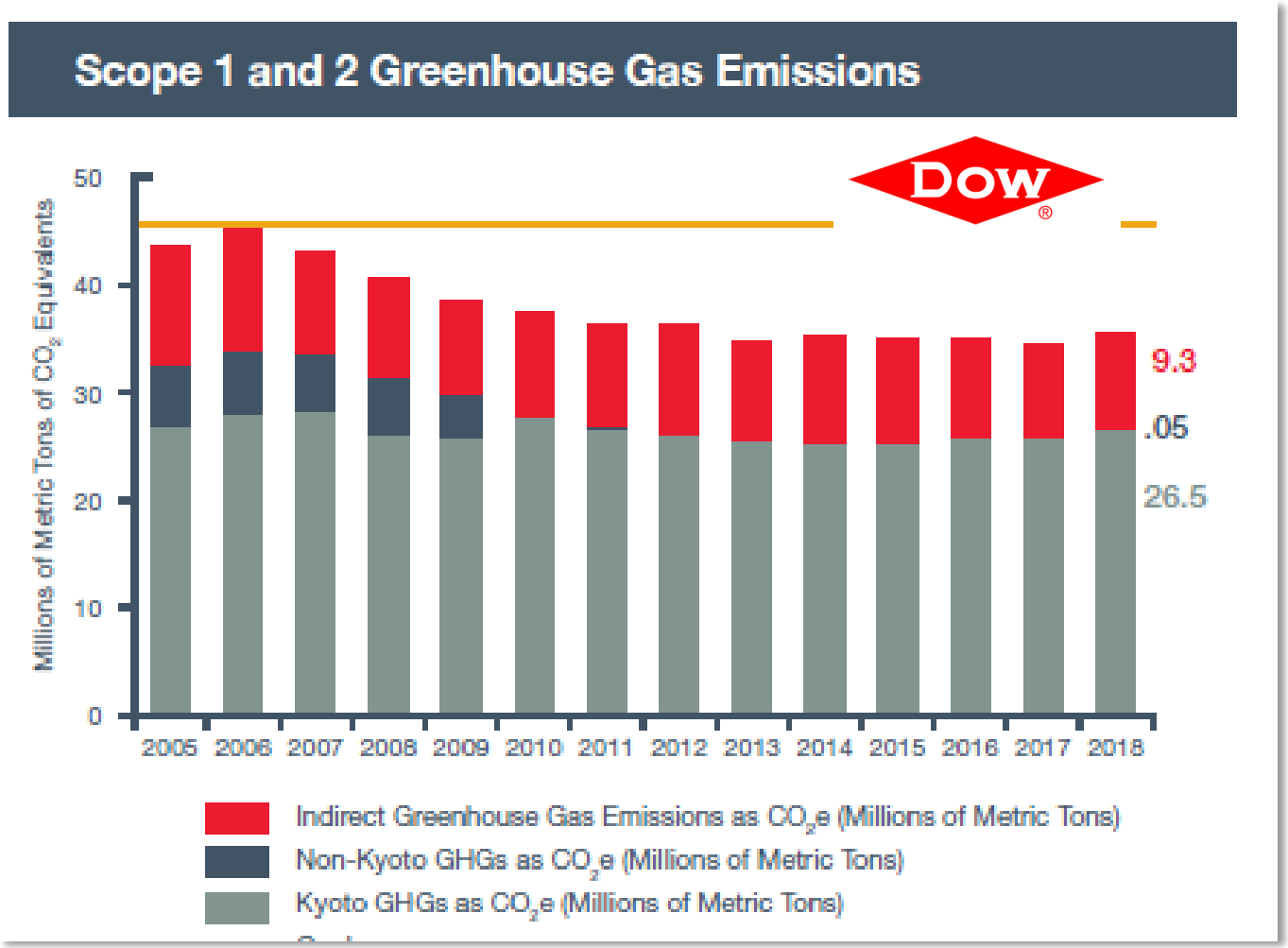
– **Wal-mart produced 19 million metric tonnes of greenhouse gas emissions!**

– **Coca Cola used 299 billion liters of water!**

Example - 3M Greenhouse Gas Emissions 2018 Sustainability Report



Disclosure Example - Dow Chemical
Scope 1 and 2 Greenhouse Gas Emissions - 2018



Additional Example of Emissions Reporting - BMW 2018

BMW Group CO_2 footprint

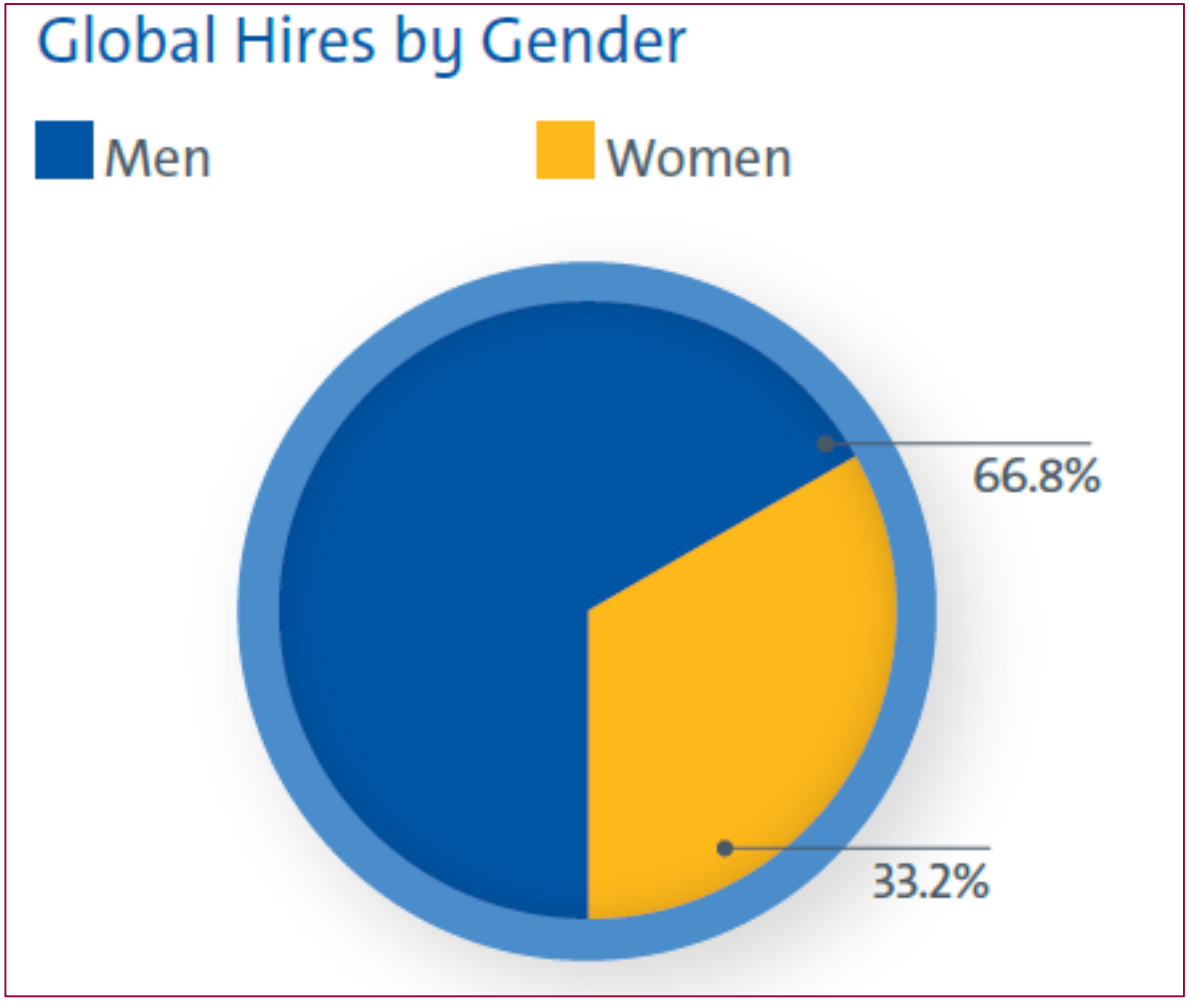
→ G3.02

in t CO_2	2014	2015	2016	2017	2018
Total emissions[1]	66,913,264	68,991,955	70,818,970	72,850,724[2]	74,213,402[2]
SCOPE 1: DIRECT GREENHOUSE GAS EMISSIONS					
Total emissions	494,931	536,168	562,146	625,072	581,703
Emissions of BMW Group locations[3]	403,810	443,575	472,021	529,728	487,249
Emissions of company vehicles	85,695	87,358	85,008	88,782	88,272
Emissions of company-owned planes	5,426	5,235	5,117	6,562	6,182
SCOPE 2: INDIRECT GREENHOUSE GAS EMISSIONS					
Total emissions[4]	966,067	923,313	868,089	510,911	538,622
Electricity/heat purchased by BMW Group locations[4]	966,067	923,313	868,089	510,911	538,622
SCOPE 3: INDIRECT GREENHOUSE GAS EMISSIONS					
Total emissions	65,452,266	67,532,474	69,388,735	71,714,741[2]	73,093,077[2]
Emissions of logistics	1,518,304	1,402,082	1,427,399	1,497,075[2]	1,563,919
Emissions of business trips	137,601	138,522	142,260	169,233	159,039
Emissions of employees' commuter traffic	121,428	133,690	139,797	140,187	136,608
Emissions of upstream chain[5]	14,331,118	14,886,300	15,391,154	16,786,192	17,221,109
Emissions of utilisation phase[6]	48,239,470	49,582,958	51,079,073	51,887,708	52,759,567[2]
Emissions of disposal[7]	1,104,345	1,145,158	1,186,148	1,234,346	1,252,835

Social Aspects of Sustainability

- The social dimension of sustainability concerns the impacts the organization has on the social systems within which it operates
- The Social Category includes the sub-Categories
  - **Labor Practices and Decent Work**
  - **Human Rights**
  - **Society**
  - **Product Responsibility**

General Motors Example
2017 New Hires – by Gender



Target Example 2017 Workforce Diversity

Workforce Diversity†

Gender Diversity	Female	Male
Total Workforce (U.S.)	57%	43%
Total Workforce (Global, excluding the U.S.)	39%	61%
Target Manager Workforce	52%	48%
Target Leadership Team	36%	64%
Target Board of Directors	36%	64%

Racial/Ethnic Diversity	Diverse	Non-Diverse
Total Workforce (U.S.)	47%	53%
Target Manager Workforce	33%	67%
Target Leadership Team	36%	64%
Target Board of Directors	45%	55%

† Data is for the fiscal year ended Feb. 3, 2018

Other Topics Covered in the Sustainability Reporting Course

Greenwashing

3rd Party Certifications

Carbon trading and Carbon taxes

Carbon Offsets

Measuring Greenhouse Gas Emissions

- Greenhouse gas emissions are measured using the **"carbon dioxide equivalency"** for each type of greenhouse gas
  - This is the amount of carbon dioxide that would have the same global warming potential (GWP), over time, as the actual greenhouse gas being measured
  - Thus, when greenhouse gas emissions are reported, they are reported in metric tonnes of carbon dioxide equivalents (CO_2e)

Selecting a GHG Emissions Calculation Approach

- Direct measurement of GHG emissions by monitoring concentration and flow rate is not common
- The most common approach for calculating GHG emissions is through the application of documented emission factors
  - These factors are calculated using ratios relating GHG emissions to a proxy measure of activity at an emissions source
  - The GHG Protocol website has calculation tools available for computing emissions in a variety of industry sectors
  - The GHG Protocol also provides a list of third party databases that have tools for calculating emissions

Greenhouse Gas Protocol Corporate Reporting and Accounting Standard

- The *GHG Protocol Corporate Standard* provides standards and guidance for organizations preparing a greenhouse gas (GHG) emissions inventory
- It covers the accounting and reporting of the greenhouse gases covered by the Kyoto Protocol
  - carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O)
  - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6), nitrogen trifluoride (NF_3)

Additional Example of Emissions University of Montana

- The University of Montana also measures greenhouse gas emissions
- For 2014 the reported emissions for the University of Montana are:

Scope 1 Emissions	**15,528***
Scope 2 Emissions	**14,194**
Scope 3 Emissions	**14,853****

*natural gas, distillate oil, propane, gas, diesel, fertilizer, etc.

**Student/faculty/staff commuting, travel, landfill waste, etc.