

# The LowCarbonSG Programme and its impact on SMEs in their low carbon journey

Terence Tan

Director, Carbon Management  
GCNS



Network Singapore



# UN Global Compact

**THE UNITED NATIONS GLOBAL COMPACT**  
is the world's largest corporate sustainability initiative.

**12,000+**

businesses committed to  
the Ten Principles of the  
United Nations Global  
Compact

**>3,000**

non-corporate members

**66M**

people employed in a  
company participating in  
the UN Global Compact

**28%**

of Fortune 500  
companies

**60+**

local networks

**4,000**

companies and public-  
private partnerships

# The LowCarbonSG Programme



- **LowCarbonSG** is a **nationwide capability-building programme** that enables businesses to develop the habit of **measuring, tracking, and managing** their carbon emissions using the **Carbon & Emissions Recording Tool (CERT)**.
- Companies that successfully measure and monitor their carbon footprints will receive the **LowCarbonSG Participant Logo**.

## Spearheaded by:



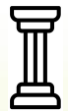
## Supported by:



## Pioneering Partners and Stakeholders



# 2 Pillars of the LowCarbonSG Programme



## Carbon Management Workshops

- The aim of the course is to upskill company staff in carbon accounting and greenhouse gas (GHG) management.



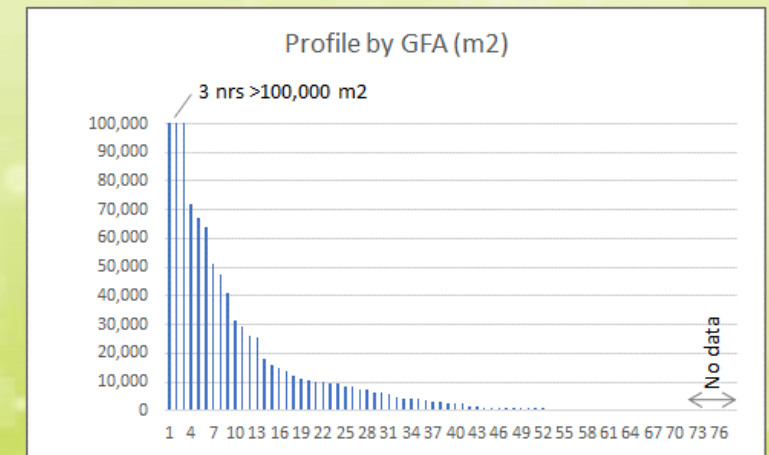
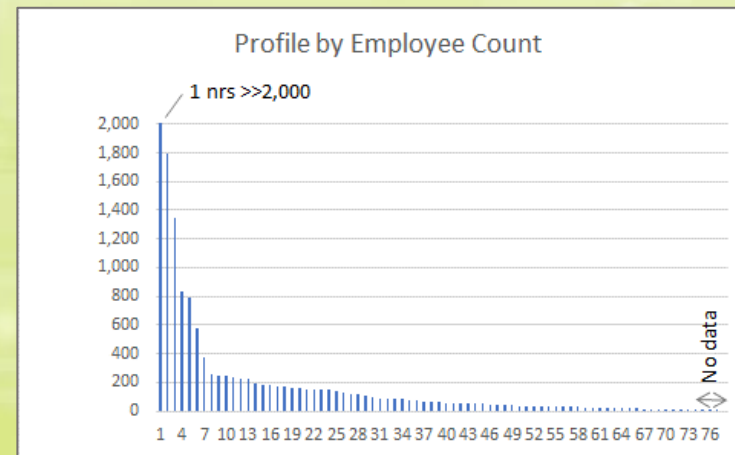
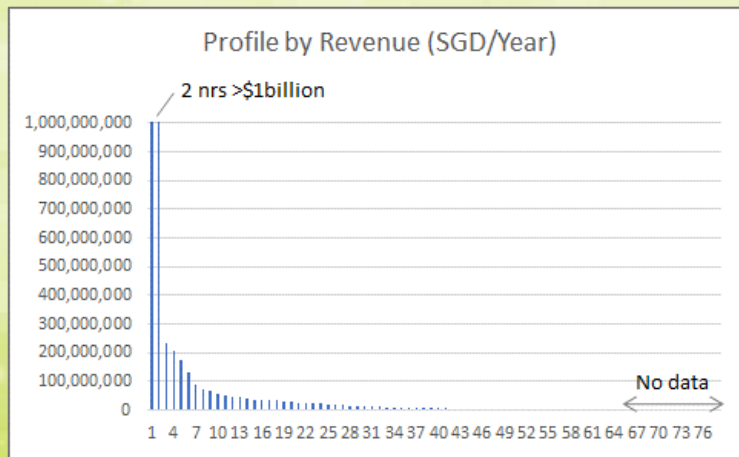
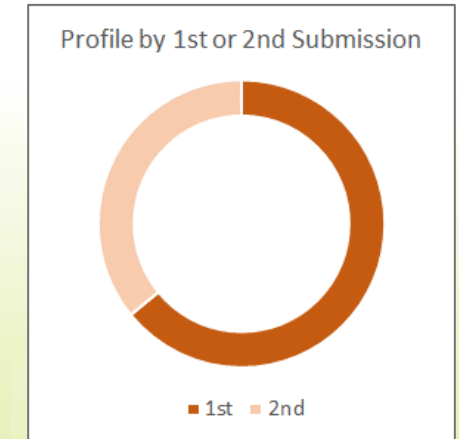
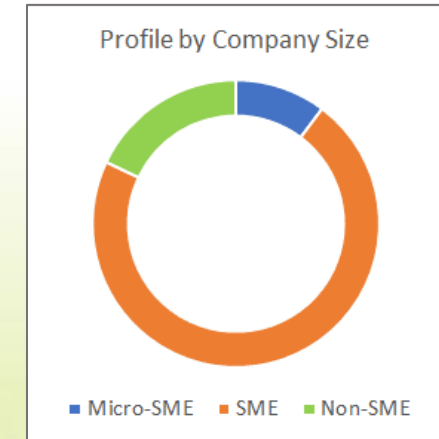
## Carbon & Emissions Recording Tool (CERT)

- An **easy-to-use** tool for local companies to measure and manage their emissions
- Developed with input from **NEA**, with **inbuilt formulae** for emissions calculation

	Total Absolute Emissions Over Year 0 Period		Average Monthly Emissions Over Year 0 Period		Total Absolute Emissions Over Year 1 Period		Average Monthly Emissions Over Year 1 Period	
	From 01 Jan 21 to 01 Dec 21		From 01 Jan 21 to 01 Dec 21		From 01 Jan 22 to 01 Dec 22		From 01 Jan 22 to 01 Dec 22	
	Quantity	Unit	Quantity	Unit	Quantity	Unit	Quantity	Unit
<b>Scope 1: Direct emissions from source owned/controlled by company</b>	<b>5,375</b>	<b>kgCO2e</b>	<b>448</b>	<b>kgCO2e/month</b>	<b>5,965</b>	<b>kgCO2e</b>	<b>497</b>	<b>kgCO2e/month</b>
Transportation with Company Owned Vehicles (Mobile Combustion)	2,653	kgCO2e	221	kgCO2e	3,960	kgCO2e	332	kgCO2e
By fuel consumption	2,653	kgCO2e	222	kgCO2e/month	3,960	kgCO2e	332	kgCO2e/month
By distance travelled								
Non-transport Energy (Stationary Combustion)								
Liquid Fuels								
Gaseous Fuels								
Other Fuels								
Refrigerant Leaks	2,722	kgCO2e	227	kgCO2e/month	3,965	kgCO2e	365	kgCO2e/month
Refrigerants	2,722	kgCO2e	227	kgCO2e/month	3,965	kgCO2e	365	kgCO2e/month
<b>Scope 2: Indirect emissions from the generation of purchased energy</b>	<b>4,057</b>	<b>kgCO2e</b>	<b>338</b>	<b>kgCO2e/month</b>	<b>5,274</b>	<b>kgCO2e</b>	<b>440</b>	<b>kgCO2e/month</b>
Electricity from national grid	4,057	kgCO2e	338	kgCO2e/month	5,274	kgCO2e	440	kgCO2e/month
Electricity from solar / Carbon neutral sources								
Purchased clean/cooling								
Renewable energy certificates (RECs)								
<b>Scope 3: Indirect emissions (not included in Scope 2) from the value chain of the company</b>	<b>27,506</b>	<b>kgCO2e</b>	<b>2,292</b>	<b>kgCO2e/month</b>	<b>18,755</b>	<b>kgCO2e</b>	<b>1,565</b>	<b>kgCO2e/month</b>
Transportation not owned by company								
Air transport	25,090	kgCO2e	2,083	kgCO2e/month	16,090	kgCO2e	1,332	kgCO2e/month
Land transport	1,423	kgCO2e	119	kgCO2e/month	1,710	kgCO2e	143	kgCO2e/month
Water Consumption	539	kgCO2e	45	kgCO2e/month	650	kgCO2e	54	kgCO2e/month
Waste Disposal	963	kgCO2e	81	kgCO2e/month	993	kgCO2e	83	kgCO2e/month
Other Carbon Offsets								
<b>Other Non-REC Offsets</b>								
<b>Total for Period Before Offsets</b>	<b>36,938</b>	<b>kgCO2e</b>	<b>3,078</b>	<b>kgCO2e</b>	<b>29,992</b>	<b>kgCO2e</b>	<b>2,499</b>	<b>kgCO2e</b>
<b>Total for Period After Offsets</b>	<b>36,938</b>	<b>kgCO2e</b>	<b>3,078</b>	<b>kgCO2e</b>	<b>29,992</b>	<b>kgCO2e</b>	<b>2,499</b>	<b>kgCO2e</b>

# Overall Profile

- Number of Years of Programme:  $\approx 2\frac{1}{2}$  years
- Number of CERT submissions used in this analysis: 78
- Size of companies: Micro-SMEs, SMEs, and companies larger than SMEs (“non-SMEs”)  
(Micro-SME <\$1M revenue or <10 employees; SME <\$100M revenue or <200 employees)



# GHG Reductions

## Year on Year Scope 1 and 2 Improvements\*:

- >5% improvement in at least 2 metrics – 42%  
2 metrics applied as a minimum threshold to avoid the element of chance improvement.
- No improvement in any metric – 18%

### \*Applicable metrics:

1. Absolute Scope 1 and 2 Emissions
2. Scope 1 and 2 Emissions Intensity by Revenue
3. Scope 1 and 2 Emissions Intensity by Employee Count
4. Scope 2 Emissions Intensity by Gross Floor Area

Statistics are determined from a subset of the full database, as year on year improvements can only be calculated from those with 2 consecutive submissions.

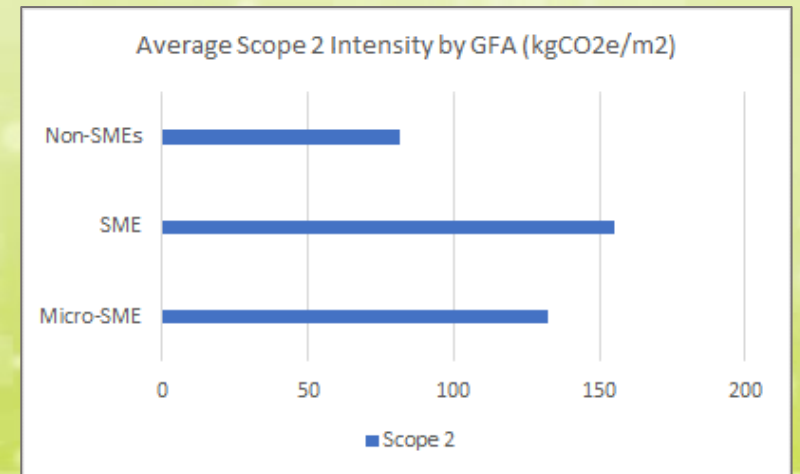
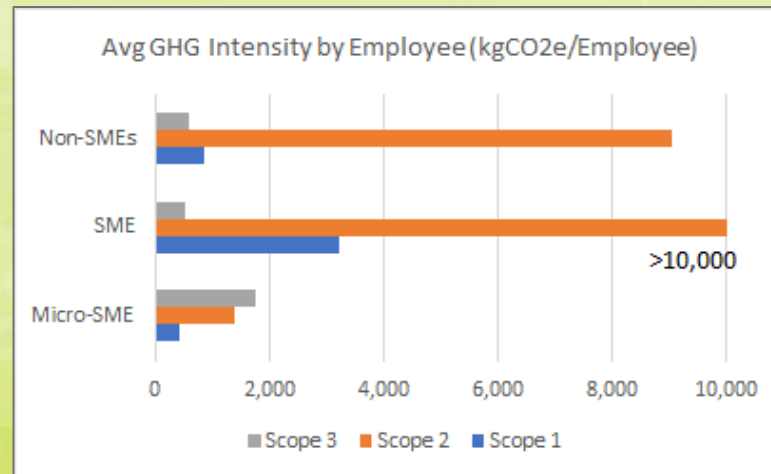
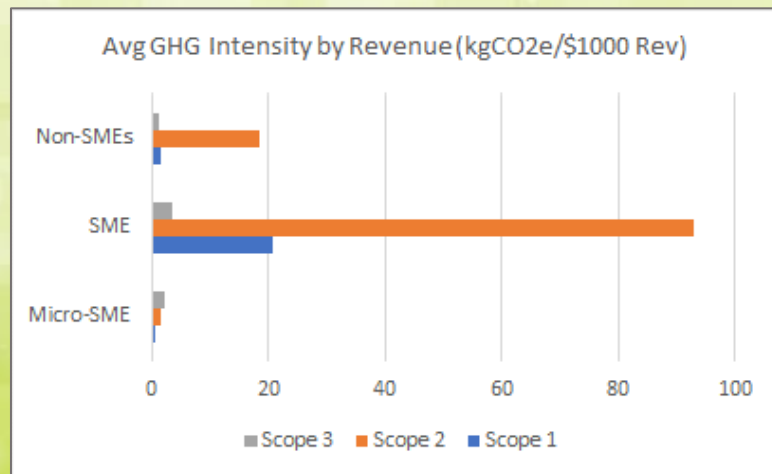
Profile Year-on-Year Improvement



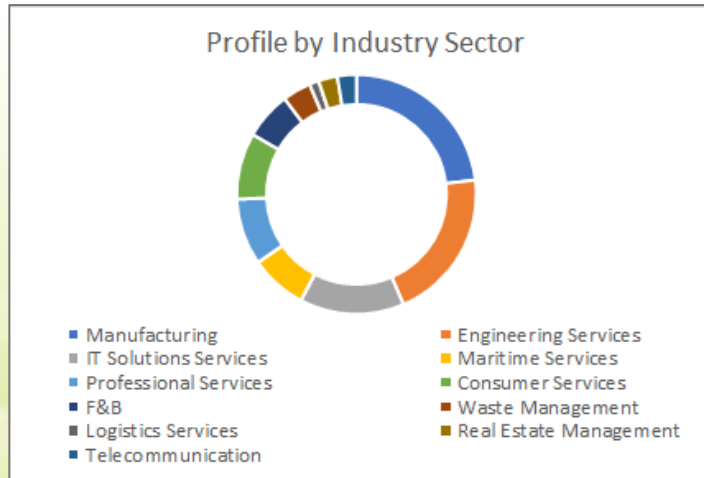
- Improved >5% in 2 or more metrics
- Improved 0-5% in 2 or more metrics
- Improved in only 1 metric
- Did not improve in any metrics

# Scope 1/2/3 Benchmarking Data by Company Size

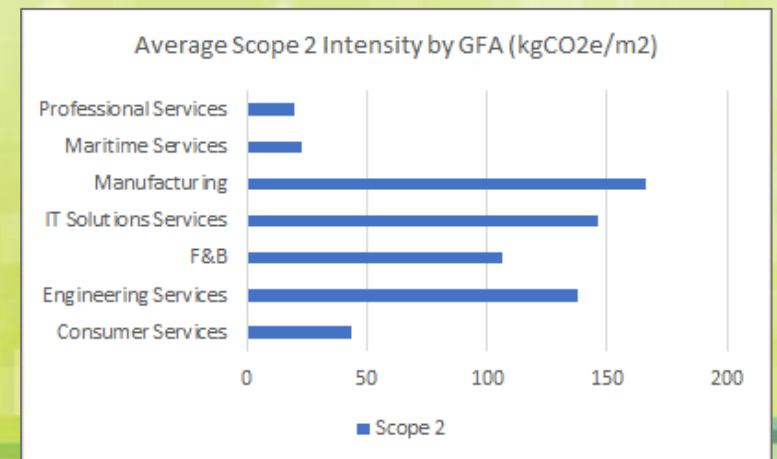
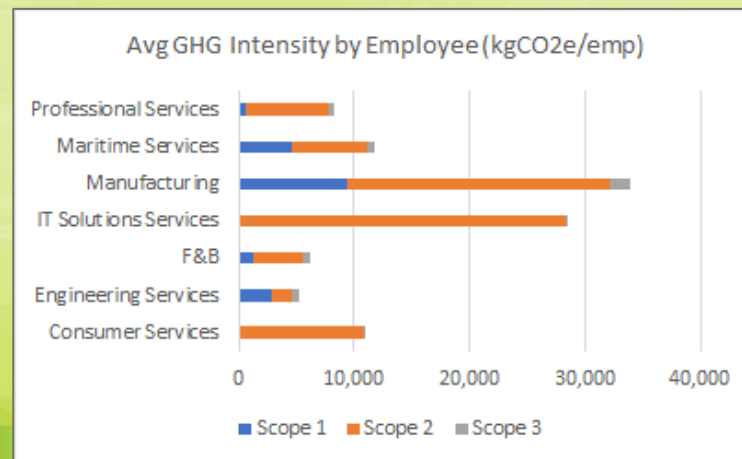
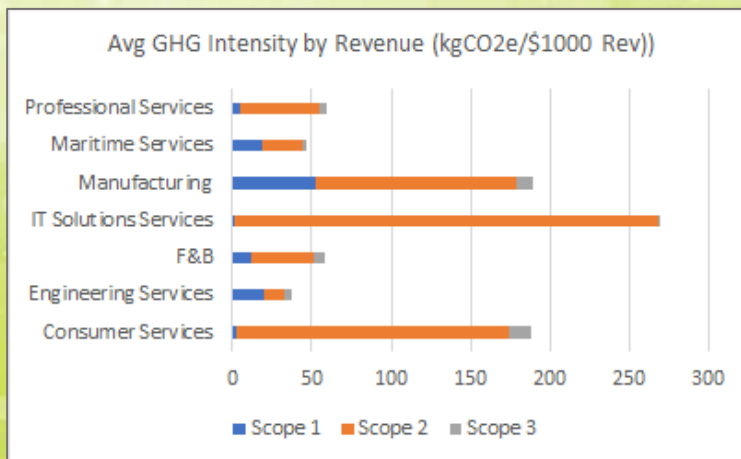
- A large number of useful benchmarks and other statistical information can be gleaned from simple mining of the database.
- All information shared is private and confidential to the individual companies, hence only information that cannot identify the participating companies is provided.
- More detailed information can be found in the full report to be published soon.



# Scope 1/2/3 Benchmarking Data by Industry Sector



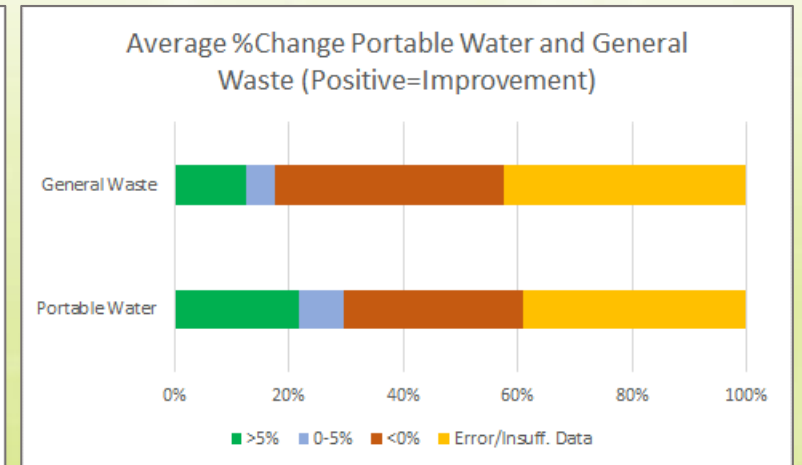
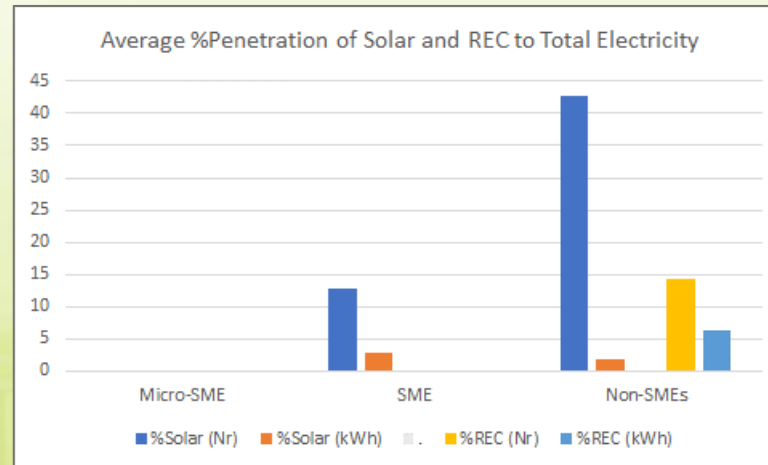
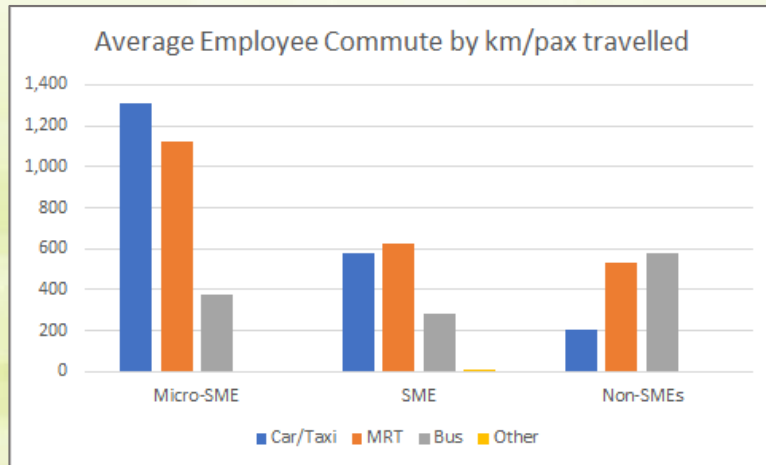
- Data not shown if <5 companies to preserve anonymity
- Sectors with at least 5 companies (hence with sector benchmarks):
  - Manufacturing, Engineering Services, IT Solutions Services, Maritime Services, Professional Services, Consumer Services, F&B
- Sectors with less than 5 companies (hence no sector benchmarks – for now):
  - Waste Management, Logistics Services, Real Estate Management, Telecommunications
- Breakdown by company size by sector is also not available yet, as the subsets are either less than 5 or the companies excluded are less than 5 (i.e. can be back-calculated).





# Other Benchmarking Data from CERT

- Selected additional insights from CERT:



# Concluding Remarks

- The LowCarbonSG programme has helped companies get upskilled to understand and apply carbon management principles in their actual operations.
- Through the availability of an easy-to-use carbon calculator (CERT), companies can start measuring and then reducing their GHG footprint.
- With the availability of these benchmarks, companies now have access to some Singapore-specific benchmarks that they can compare with, and not just only against their own previous years' numbers:
  - Local peer group by company size
  - Local peer group by (some) industry sectors
- Our GHG emissions benchmarks will be regularly updated and expanded as our database grows, and shared for benefit of the public good.

# THANK YOU

[terence.tan@unglobalcompact.sg](mailto:terence.tan@unglobalcompact.sg)

Find GCNS on social media

Facebook: [@globalcompactnetworksingapore](https://www.facebook.com/globalcompactnetworksingapore) | LinkedIn: [linkedin.com/company/gcns](https://www.linkedin.com/company/gcns)



**Global Compact**  
Network Singapore

