

ST Engineering (Commercial & Defence Aerospace) Decarbonisation Journey

Mr. Jeffrey Lam, President Commercial Aerospace



About ST Engineering

Customer-Focused with a Deep Technology, Innovation & Engineering Core



Commercial
Aerospace



Urban
Solutions



Satcom



Digital
Systems
and Cyber



Land
Systems



Marine



Defence
Aerospace

25,000 employees
in Asia, Europe, the
Middle East and the
U.S.

17,000
engineering and
technical staff
globally

Global operations
serve customers in
more than **100**
countries

>\$2b of
cumulative R&D
investments in the
last 5 years

About ST Engineering

A Strong Track Record and Global Footprint

World-class OEM and MRO Provider



Aircraft MRO

World's largest commercial airframe maintenance service provider



P2F¹ Conversion

1st in the world to deliver Airbus Family of Converted Freighters

>700 Global Smart City Projects Delivered



Smart Security
>100 large projects completed in 18 cities



Smart Environment
>15m wireless nodes deployed worldwide



Smart Mobility
>300 projects completed in >50 cities

Global Leader for Satcom Ground Segment

Global Market Shares (Hubs & Modems)

65%



Maritime

45%



Aviation

52%



Media & Broadcast

Regional Digital Technology Partner



Cloud Services
Implementer of largest Azure cloud stack outside of US



Cybersecurity
Leading regional provider of Operational Technology Cybersecurity

About Commercial Aerospace

The Environmental Impact of our Business is Global



Our Decarbonisation Approach

Sustainability as a Strategic Objective Embedded in our Mission

Integrate Strategy, Sustainability & Operations



Long term planning,
not an afterthought



Consider and price-in
externalities



Not just risks,
but also opportunities

Weave into all
planning processes

Whole of ST Engineering Effort

Board

EXCO / GSBC

Business
Areas

Corporate
Functions

Sustainability is
everyone's
responsibility

Group-wide = global

Mind-set change +
commit to impactful
targets

Our Decarbonisation Approach

Two-Pronged Focus – Doing Our Part



1| Scope 1&2; 2010 base year

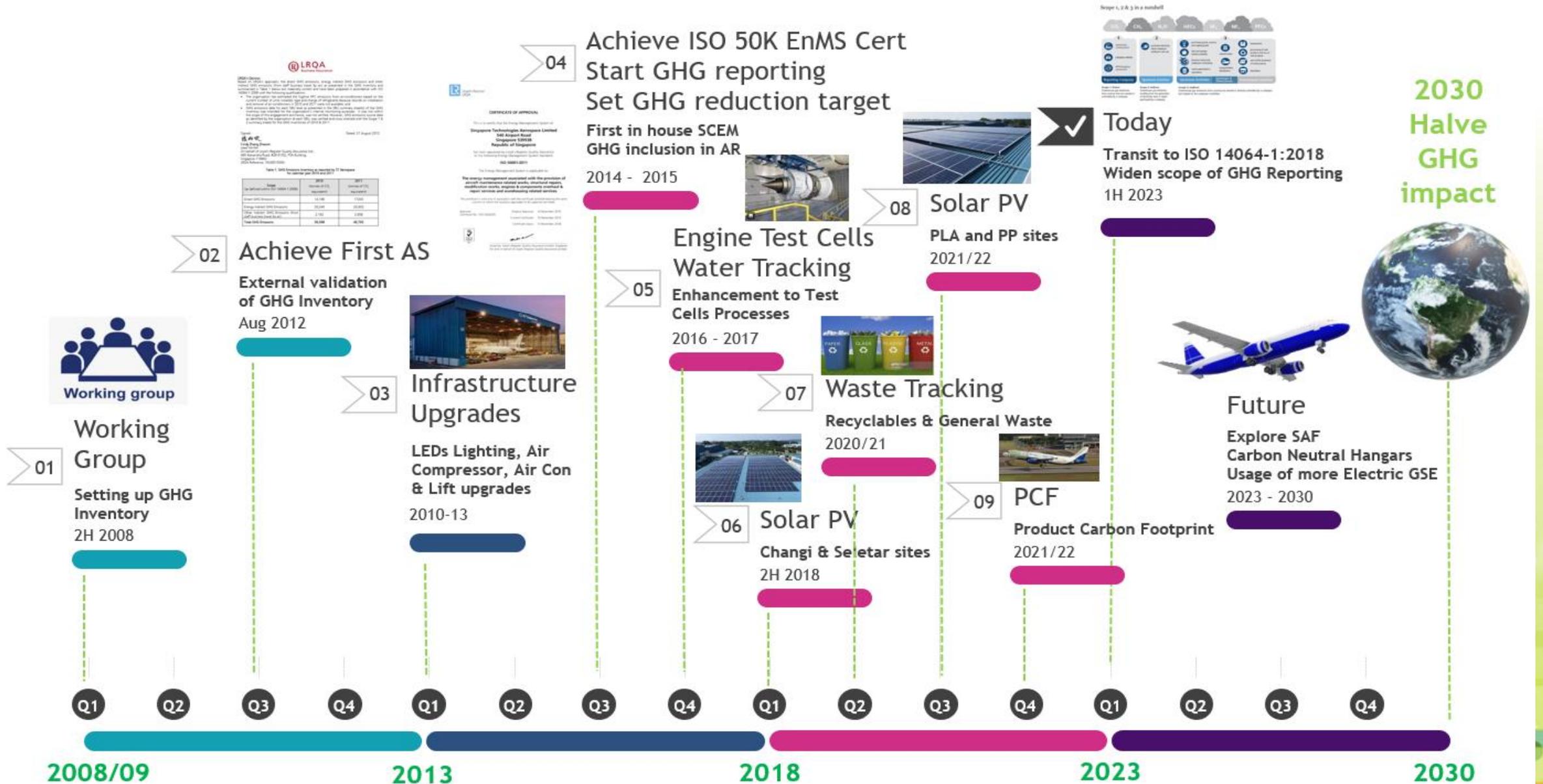
2| Taskforce for Climate-related Financial Disclosures

Our Decarbonisation Approach

Two-Pronged Approach - Enabling Our Customers



Our Decarbonisation Journey

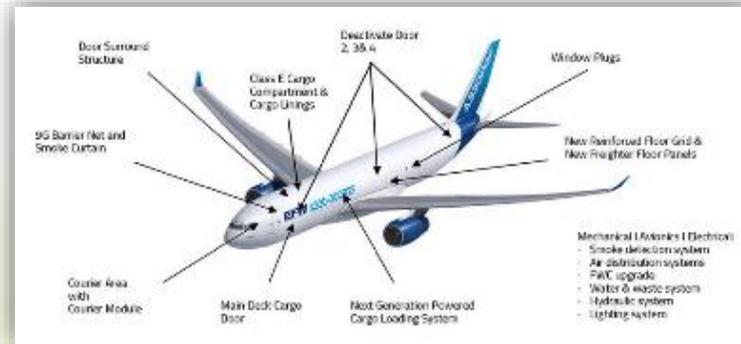


Examples of Key Initiatives



Solar PV Installation

- Completed at Seletar, Changi, PLA & Tuas
- Largest solar user in Singapore Aviation Industries (size of @10 football fields)
- Total capacity: 10.7MWp/year
- Emission Reduction: 5500 tCO2e/year
- Offset about 30% of total electricity consumption



Passenger to Freighter Conversion

- Reduce environmental impact & improve asset efficiency
- Provides 2nd lease of life
- Reduce material consumption
- Reduce aircraft downtime and improve operational flexibility
- Contribute to Circular Economy



EcoPower Engine Wash

- A closed loop system that protects the environment
- Deionized, heated and atomized water is sprayed to clean the engines
- The used water is filtered to produce pure deionized water for reuse
- On-Wing engine wash capability & significantly improve turn-round time
- Reduces Thrust-Specific-Fuel Consumption (TSFC) by up to 1.8%
 - save money & reduce CO2e

THANK YOU

limanthony@stengg.com or kheebeng@stengg.com

 **ST Engineering**

