

A wide-angle photograph of the Singapore skyline at sunset. The sky is a mix of orange, yellow, and grey clouds. In the foreground, the water of Marina Bay is visible. The Esplanade - Theatres on the Bay is on the left, and the ArtScience Museum is in the center. The Marina Bay Sands hotel is on the right. A small boat is on the water in the lower right.

# “Sustainability In Action: Preparing for a changing world”

5<sup>th</sup> Dec 2024

■ ■ ■  
The better the question. The better the answer. The better the world works.

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**EY**

Shape the future  
with confidence

# Quick Introduction



Sunil Yadav

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Sunil is an Associate Partner at EY's Climate Change and Sustainability Services department in Singapore. He has overall 23 years of experience in the energy and sustainability sector, with a focus on driving decarbonisation, decentralisation, digitalisation, energy transition practices with sustainability as core across ASEAN markets.

Sunil has domain expertise in decarbonising large infrastructure, industry, data center and real estate across India, Middle east, China and Southeast Asia, worked with various MNC's (Siemens, Schneider electric, Johnson Controls, Carrier, and Philips) and founding member of bbp(KKR portfolio).





# EY recognises that global sustainability development and outlook can be navigated through a dual lens of compliance and aspirations



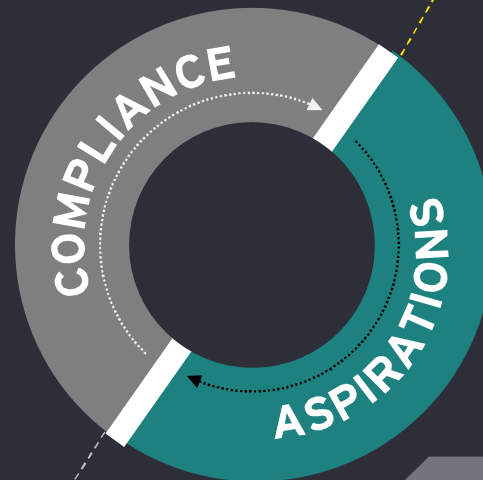
## Increased Mandatory ESG Reporting Obligations

The number of ESG regulations and standards globally has nearly doubled in the last five years amounting to over 600 ESG reporting provisions globally in 2020. In Singapore, all SGX listed issuers are required to prepare an annual sustainability report and all statutory boards are required to publish annual environmental sustainability disclosures.



## Enhanced climate reporting requirements

Climate risk disclosures are becoming mainstream public policy and corporate governance tools for world leaders in government, business and finance to measure and adapt to the physical and transitional risks of climate change.



## Developing and Navigating Net Zero Transition Plans Well



### Transform Climate Targets and beyond

- NDC
- Sector Targets
- Business Targets
- SBTi Targets
- Etc.

Achieving these targets requires a Net Zero Transition Plan that covers both supply and demand drivers for each of the Core Assets of Countries to Sectors to business and communities to plan ahead

## Unlocking Value from Sustainability



As companies progress in their sustainability journey, targeted training is crucial to equip their workforce with the necessary skills and knowledge. This ensures strategic alignment with sustainable practices, fosters innovation, and meets evolving regulatory and stakeholder expectations. Effective training enhances risk management, operational efficiency, and positions the company favorably for investor engagement, ultimately underpinning the successful realization of long-term sustainability ambitions.

# Our EY Professional Services based on A – G Approach



**A** Alignment on sustainability strategy and capacity building (Board, Senior Management, Staff)

**C** Compliance (e.g., GHG, SR, SA, SBTi, CSRD)

**F** Financing options for the sustainable / investable projects and business models

**B** Business case for Sustainability (e.g., Decarbonisation Levers, TCFD, ICP, Carbon Tax, ROI, Impact)

**D** Decarbonisation & Digitalisation planning for Scope 1, 2, 3 (Targets, Levers and Enablers)

**G** Governance and risk reviews

**C** Change Management & Communication

**E** Execution master planning with project and risk management support

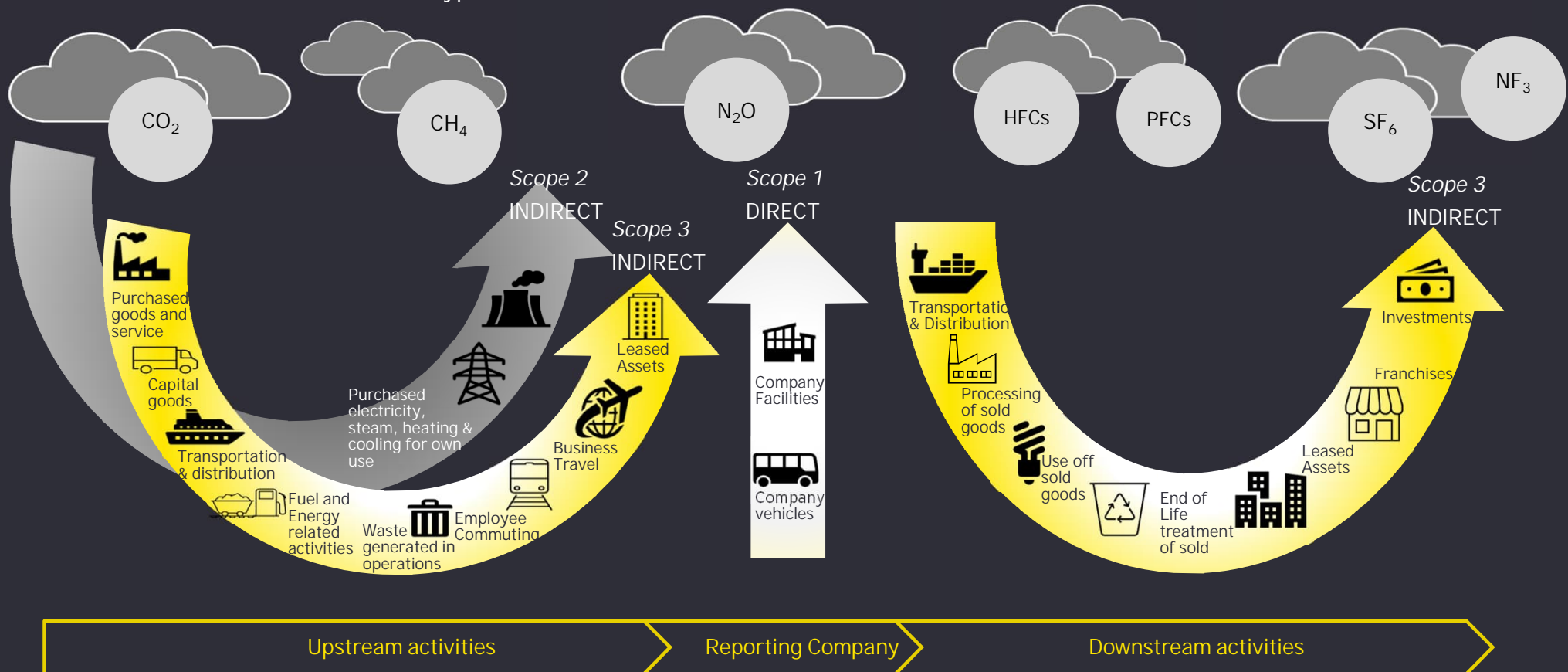




# What are greenhouse gas (GHG) emissions?

## Categorizing GHG Emissions - Scope 1, Scope 2 and Scope 3

- GHG emissions are gaseous compound that contributes to climate change by trapping and holding heat in the atmosphere
- GHG emissions are classified into 3 types:



$CO_2$ - Carbon dioxide

$CH_4$ - Methane

$N_2O$ - Nitrous Oxide

HFC- Hydrofluorocarbon

PFC - Perfluorocarbons

$SF_6$ - Sulphur Hexafluoride

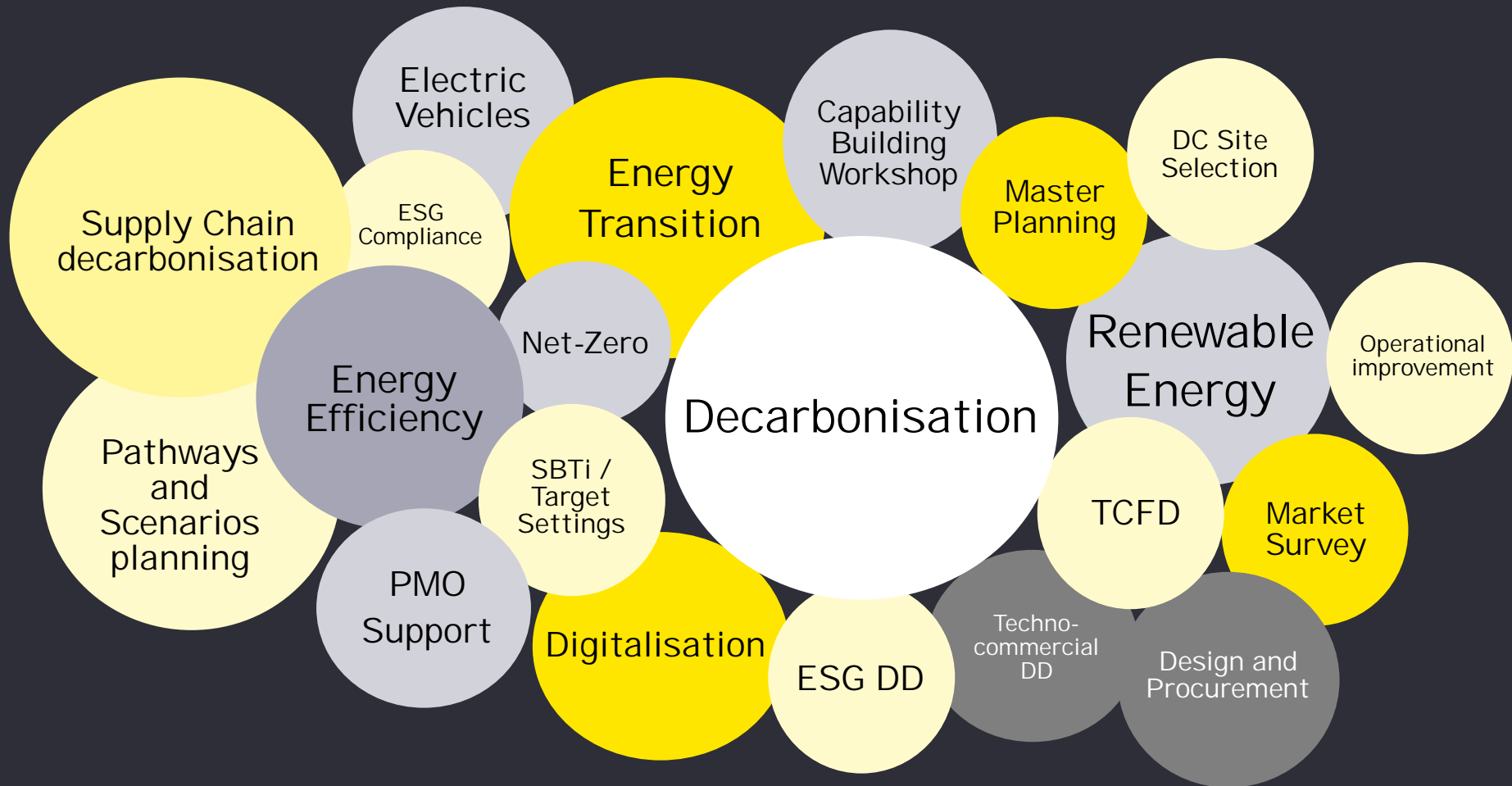
$NF_3$  - Nitrogen Trifluoride



# Emissions Measurement and Environmental Sustainability Reporting



# Complexity of Sustainability Implementation Needs



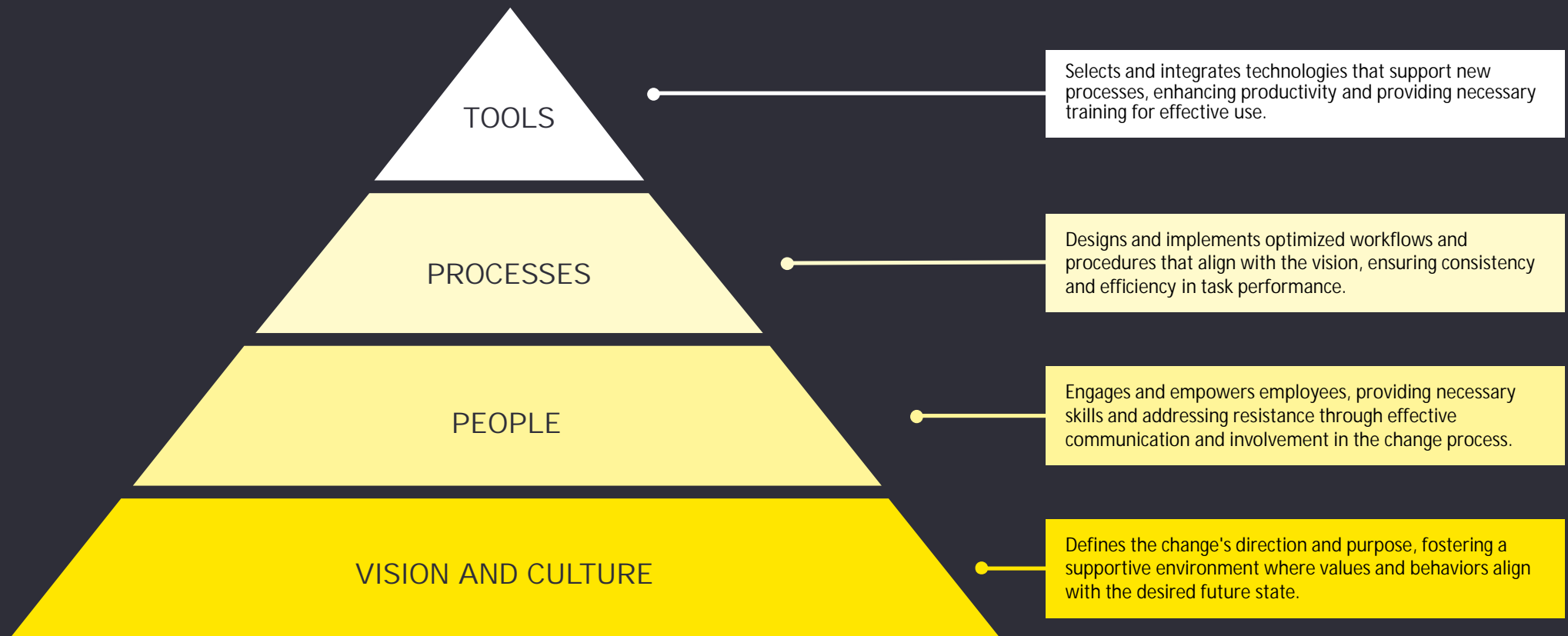




# Recommended scope of work and roadmap for decarbonisation



# Align/ Change management for decarbonisation approach

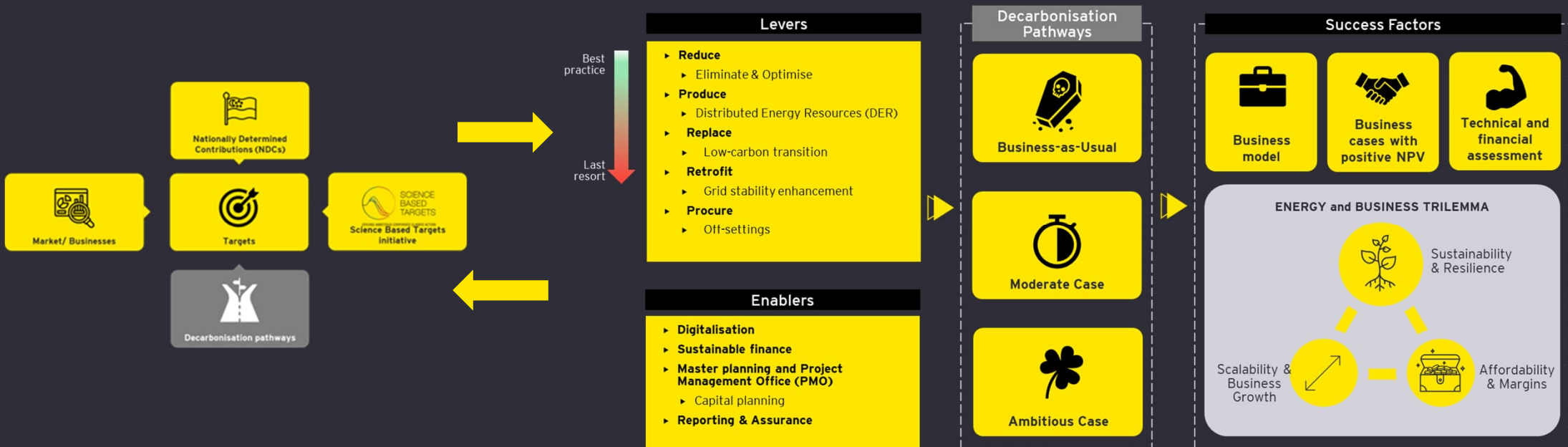




# Approach for Decarbonisation

## Top-down Approach

## Bottom-up Approach



# Approaches for Target-Alignment



# Approaches for Decarbonisation Pathways



## Levers

- ▶ Reduce
  - ▶ Eliminate & Optimize
- ▶ Produce
  - ▶ Distributed Energy Resources (DER)
- ▶ Replace
  - ▶ Low-carbon transition
- ▶ Retrofit
  - ▶ Grid stability & enhancement
- ▶ Procure
  - ▶ Off-settings

## Enablers

- ▶ Change Management
- ▶ Digitalisation
- ▶ Sustainable finance
- ▶ Master planning and Project Management Office (PMO)
- ▶ Reporting & Assurance

## Decarbonisation Pathways



Business as Usual (BAU)  
3 °C



Constrain  
2 °C



Transformative  
1.5 °C



Collapse  
4 °C

## Success Factors



Business models



Sustainability as growth driver



Technical and financial assessment

### ENERGY and BUSINESS TRILEMMA



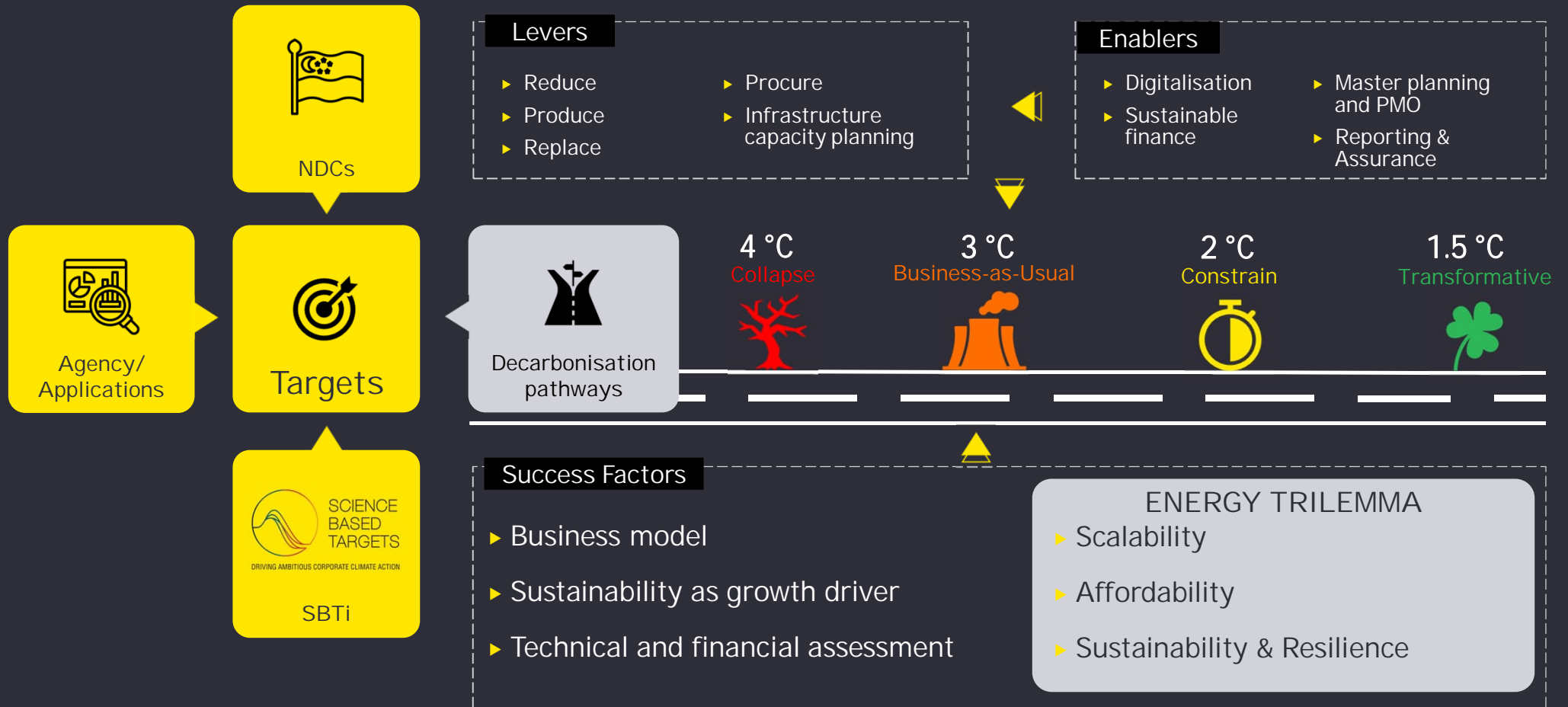
Best practice

Last resort

Most impactful

Best practice

# Approaches for Target-setting and Decarbonisation are **not** mutually exclusive





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