



# DECARBONISATION FOR INDUSTRY & MINING.

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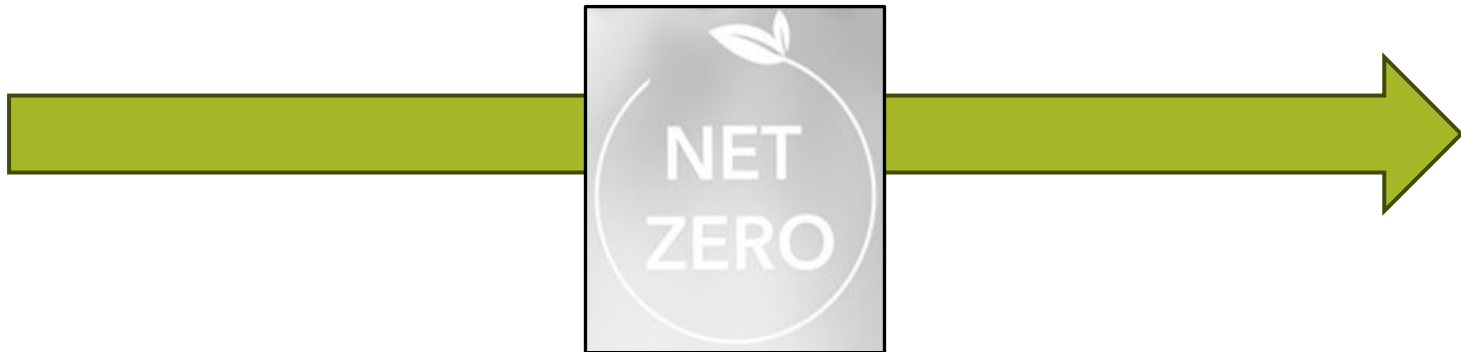
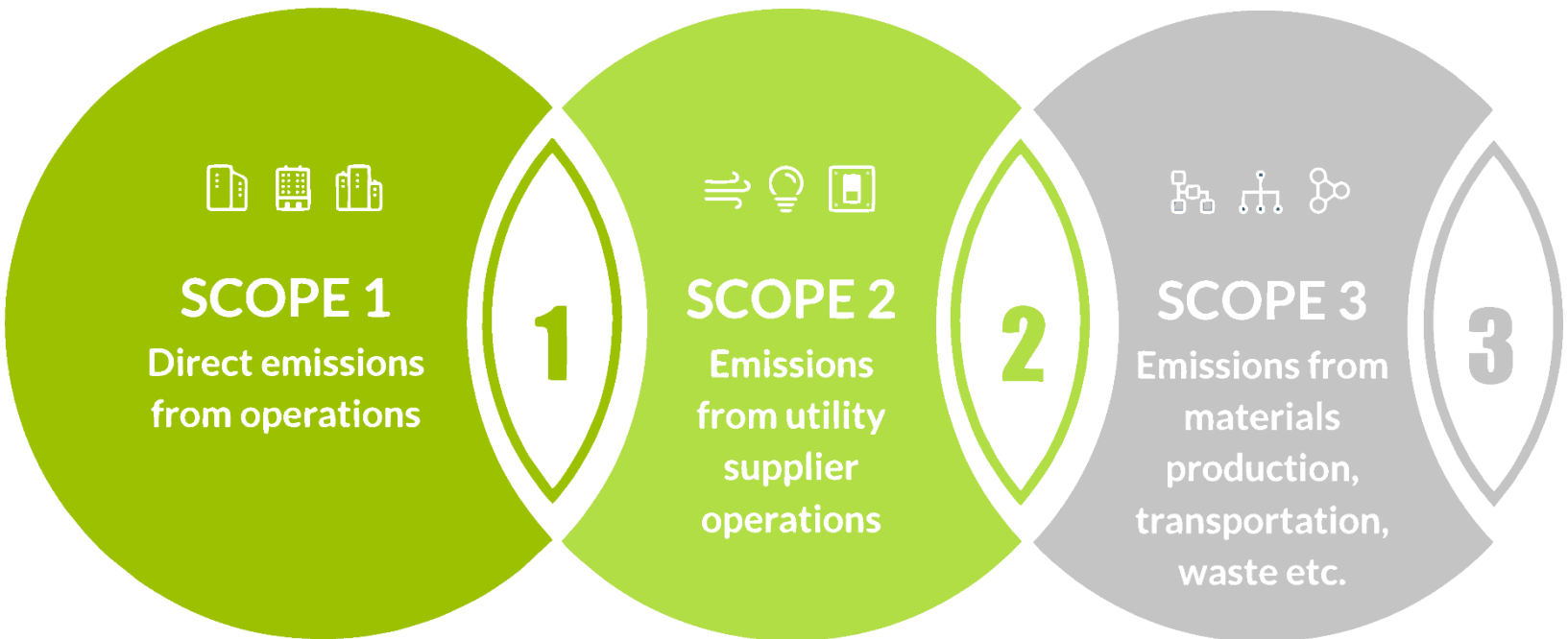
The background of the slide is a photograph of an industrial facility, possibly a refinery or chemical plant, featuring large cylindrical tanks, complex piping, and metal walkways. The entire image is overlaid with a semi-transparent green filter. Centered on this background is the main text in white, bold, uppercase letters.

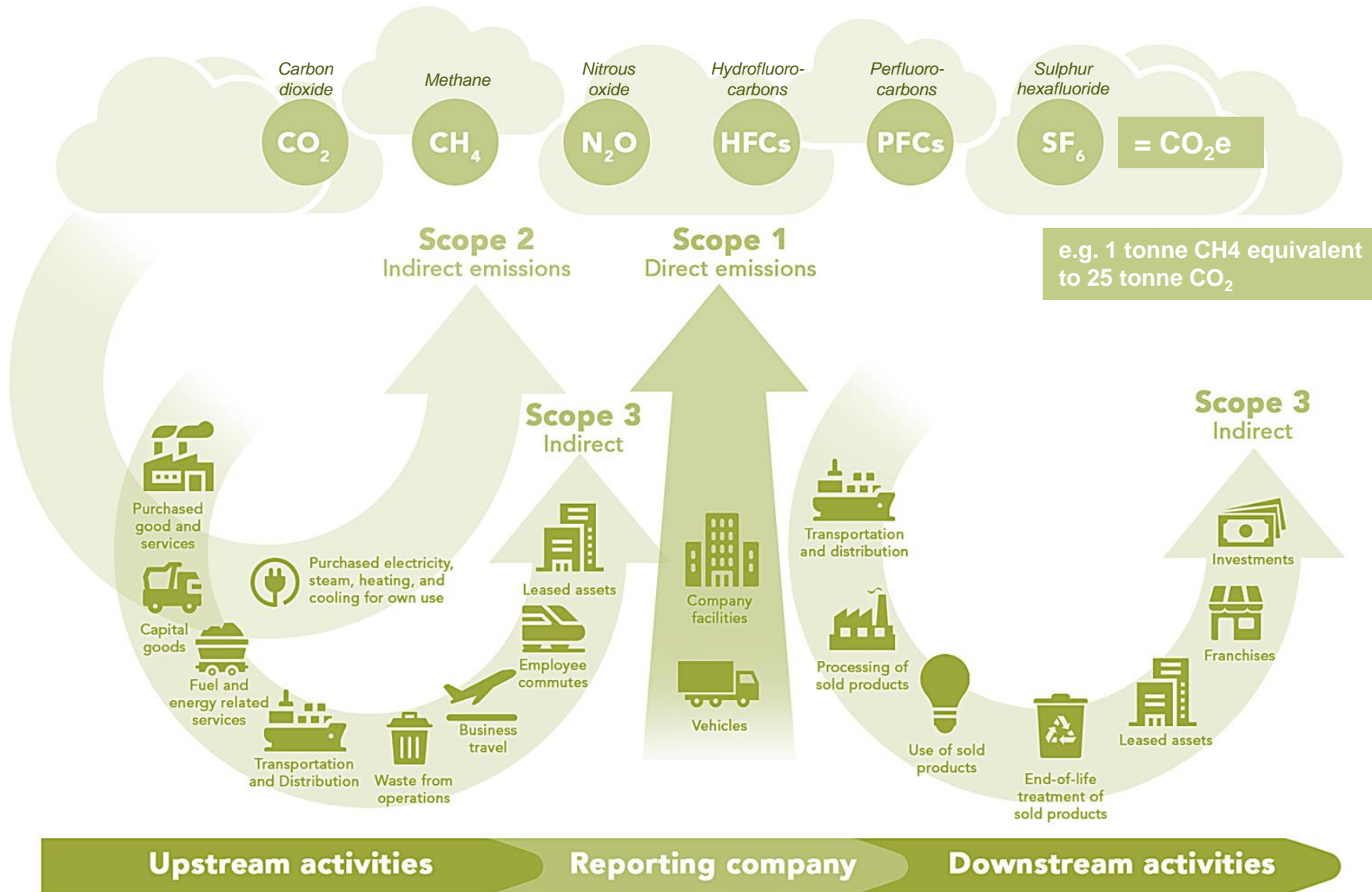
**DECARBONISATION FOR  
INDUSTRY AND MINING IS ESSENTIAL  
FOR  
ADDRESSING CLIMATE CHANGE, REDUCING  
GREENHOUSE GAS EMISSIONS,  
STAYING COMPETITIVE  
AND  
IN BUSINESS!**



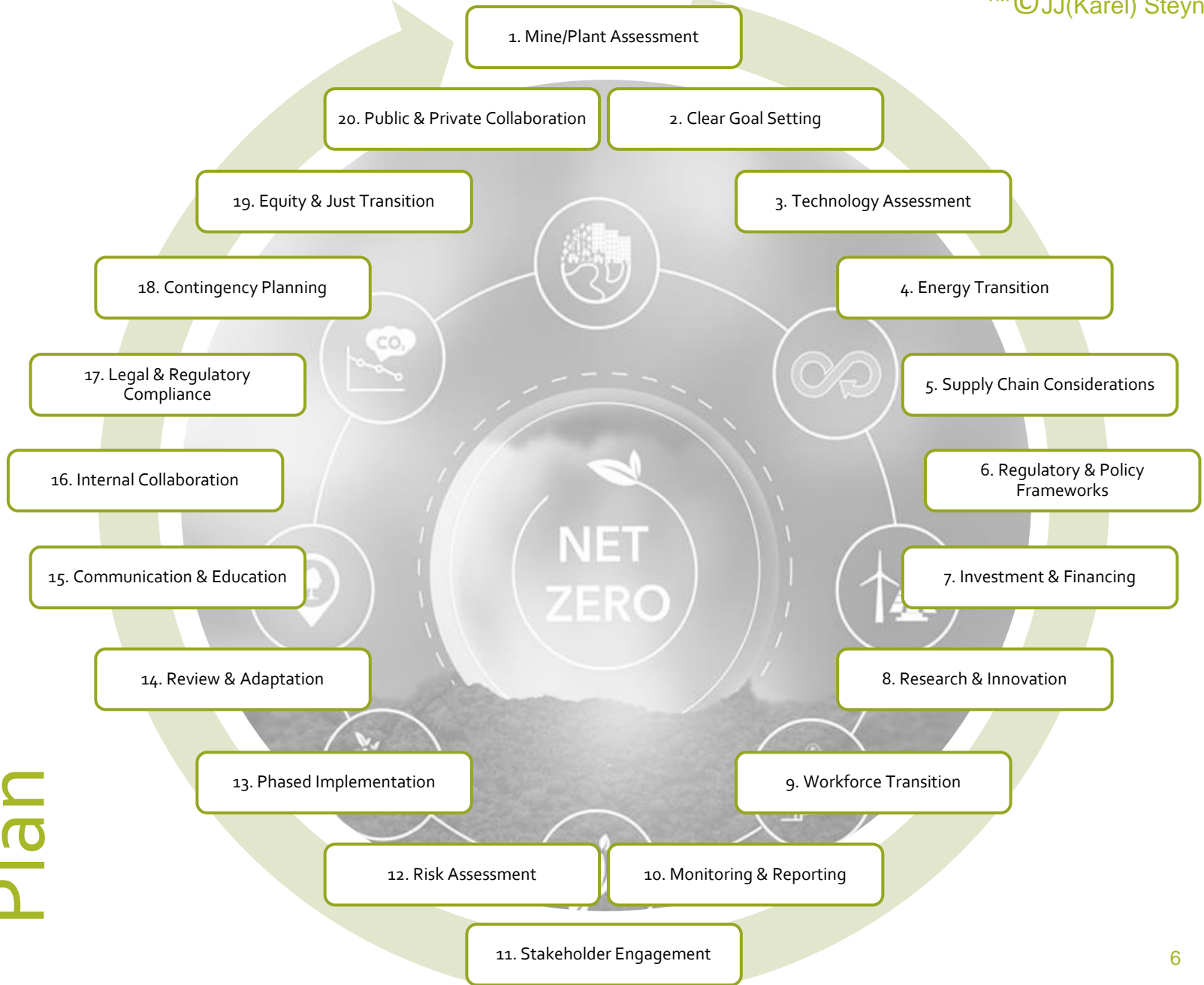
**IGNITING KNOWLEDGE AND PASSION FOR  
DECARBONISATION**

**THANKS TO:  
ENERGY & COMBUSTION SERVICES (ECS)  
CEMTEK KVB  
LOUW SWART**

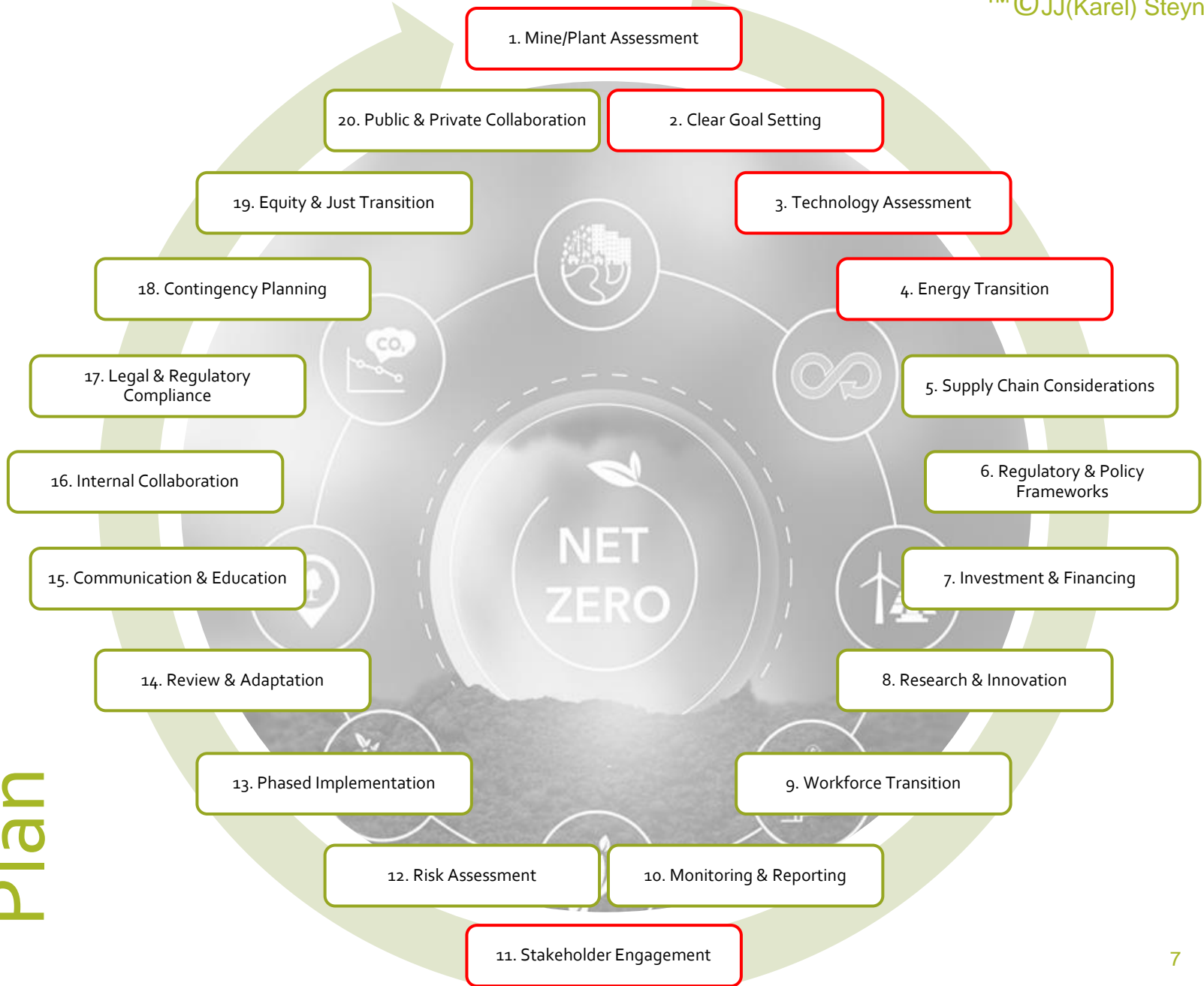




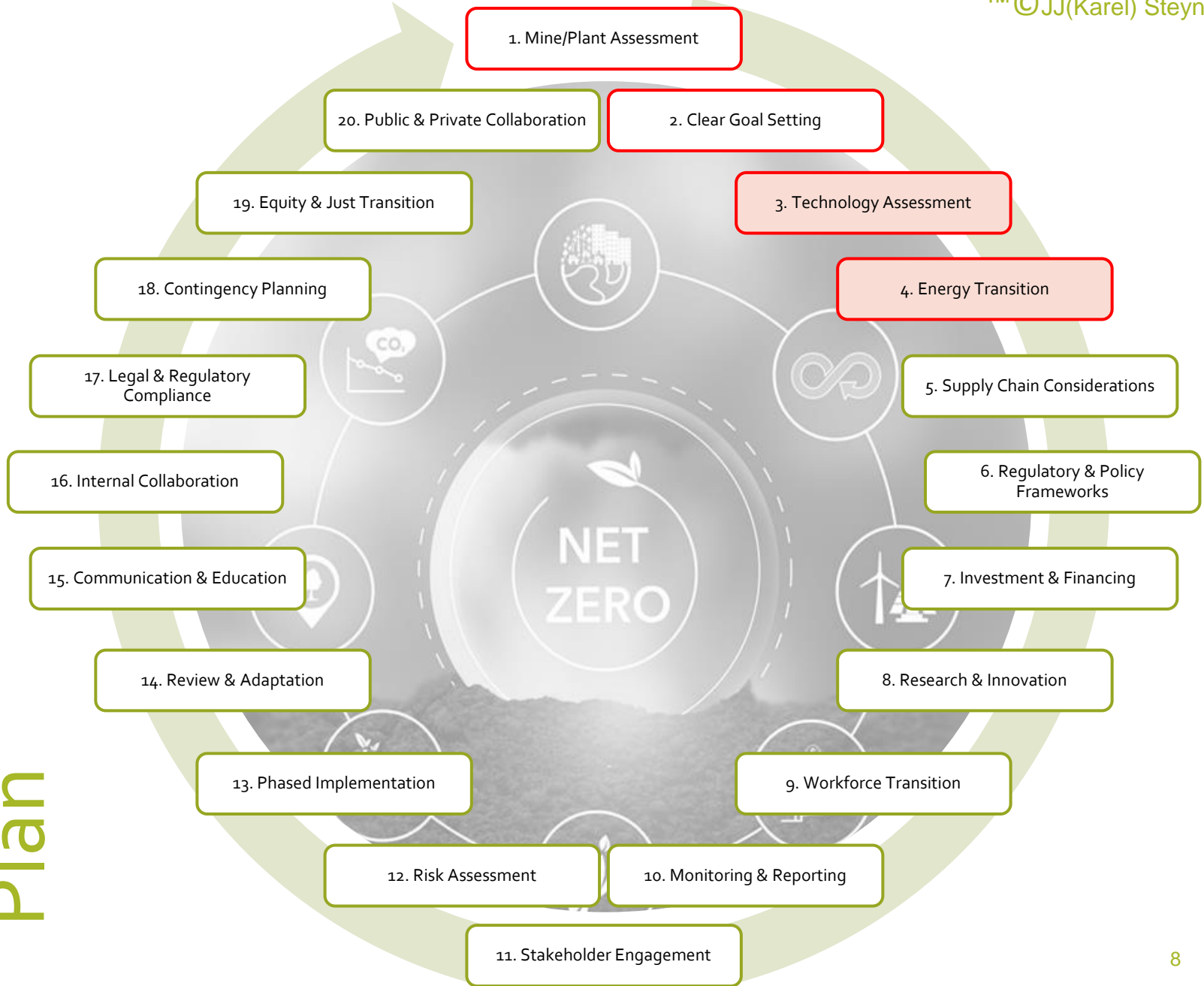
# Typical Decarbonisation Plan



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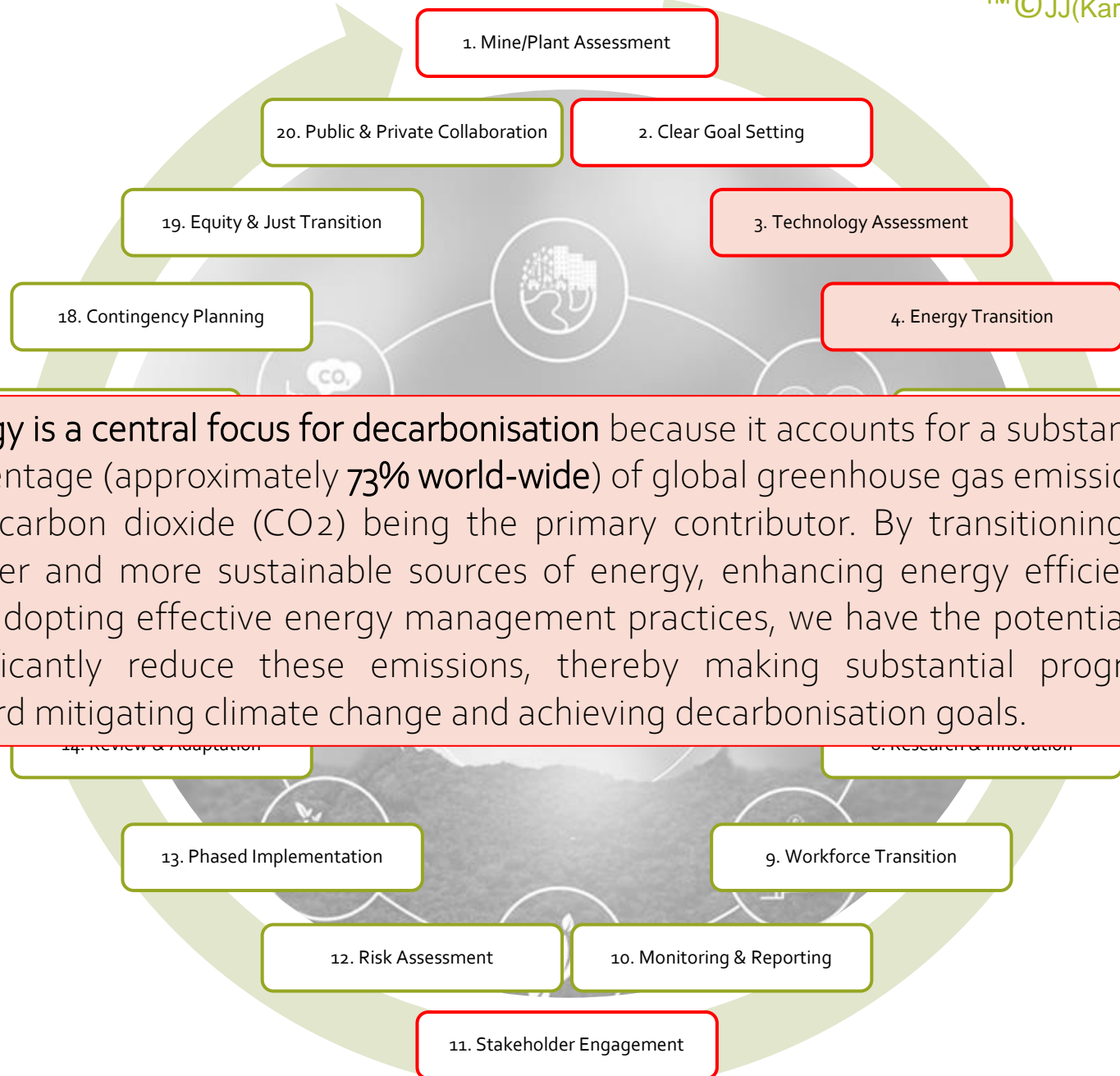


# Typical Decarbonisation Plan





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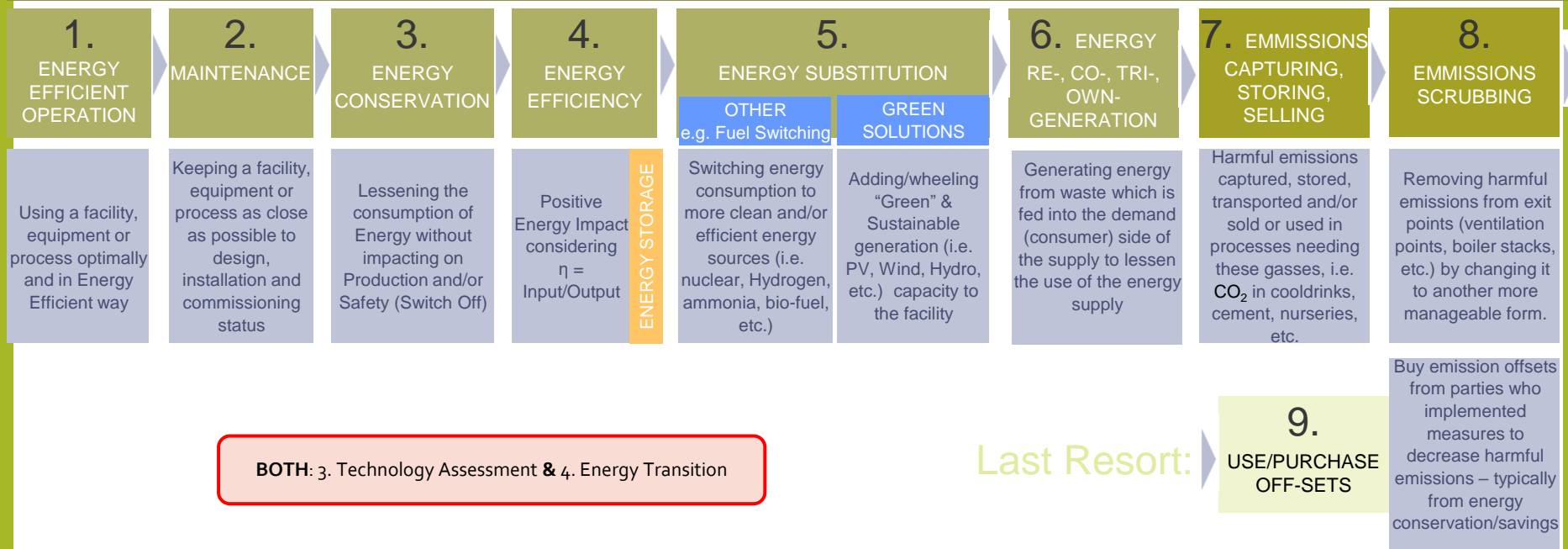
Energy is a central focus for decarbonisation because it accounts for a substantial percentage (approximately **73% world-wide**) of global greenhouse gas emissions, with carbon dioxide (CO<sub>2</sub>) being the primary contributor. By transitioning to cleaner and more sustainable sources of energy, enhancing energy efficiency and adopting effective energy management practices, we have the potential to significantly reduce these emissions, thereby making substantial progress toward mitigating climate change and achieving decarbonisation goals.

# Dealing with Decarbonisation Plan

## Objective: Decrease GHG (Harmful) Emissions to the Atmosphere

Harmful GHG emissions (CO<sub>2</sub>-e) can be decreased by decreasing energy consumption or switching energy sources. Effective energy management (EnM) enables this to happen. The proposed process starts from the left. If used in this way, it serves as an appropriate decision-making tool that will guide better investment decisions and the selection of more ideal energy and emission management solutions.

### EnM AS BASIS FOR ENERGY SECURITY & DECREASING EMISSIONS



### Evaluation & Decision Process Flow

It would be expensive and provide little to no benefit to install a PV system (energy substitution - renewables) on a facility which "waste" more than half or its energy by leaving all inefficient lights on, even if not needed. For example; the PV system would need to also provide for this "wastage" while it could possibly be half the size (at half the price) if the correct decision making processes was followed. So logically step 1, 2, 3 and 4 (shown above) would happen before step 5.

Source: Revised National Energy Efficiency Strategy (NEES), published for public comment in 2015 (adapted).

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**THANK YOU!**

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