



**TALTransformers™**  
NURTURING SOCIAL INNOVATION MINDSET



**9** INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



Industry

# Innovation and Infrastructure



**TAL**Transformers™  
NURTURING SOCIAL INNOVATION MINDSET

**9** INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



**Build resilient  
infrastructure, promote  
inclusive and sustainable  
industrialization and  
foster innovation**

**9** INDUSTRY, INNOVATION  
AND INFRASTRUCTURE



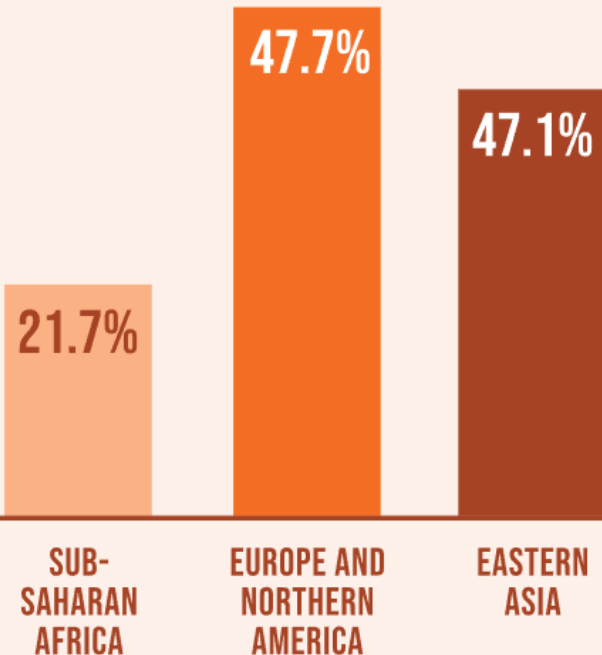
**MEDIUM-HIGH AND HIGH-TECHNOLOGY**

INDUSTRIES EXPERIENCED

**STRONG GROWTH IN 2022**

**BUT** WITH REGIONAL VARIATION

**SHARE IN TOTAL MANUFACTURING**



**TAL Transformers™**  
NURTURING SOCIAL INNOVATION MINDSET

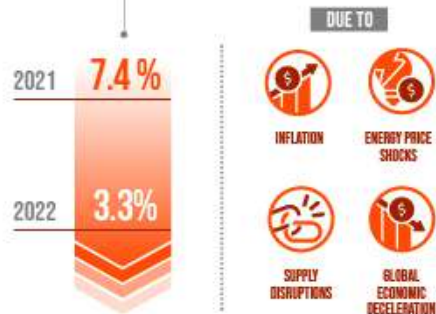
The UN explains: Investments in infrastructure – transport, irrigation, energy and information and communication technology – are crucial to achieving sustainable development and empowering communities in many countries. It has long been recognized that growth in productivity and incomes, and improvements in health and education outcomes require investment in infrastructure.

Inclusive and sustainable industrialization, together with innovation and infrastructure, can unleash dynamic and competitive economic forces that generate employment and income. They play a key role in introducing and promoting new technologies, facilitating international trade and enabling the efficient use of resources.

# Facts and Figures

## GLOBAL MANUFACTURING

GROWTH SLOWED FROM



ENERGY-RELATED

CO<sub>2</sub> EMISSIONS

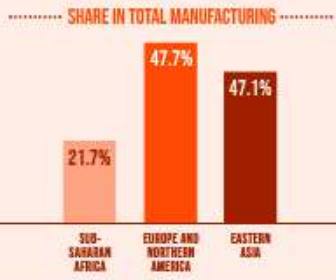
REACHED  
**36.8 BILLION**  
METRIC TONS IN 2022  
A RECORD HIGH



MEDIUM-HIGH AND HIGH-TECHNOLOGY  
INDUSTRIES EXPERIENCED

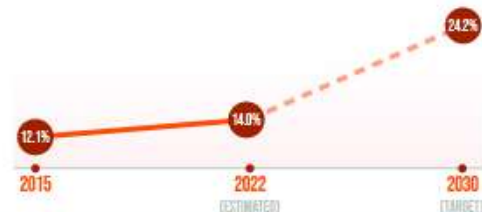
STRONG GROWTH IN 2022

BUT WITH REGIONAL VARIATION



LDCs ARE LIKELY TO MISS THEIR 2030 TARGET OF DOUBLING MANUFACTURING SHARE OF GDP

MANUFACTURING VALUE AS A SHARE OF GDP IN LDCs



**95% OF THE WORLD** HAS MOBILE BROADBAND ACCESS (3G OR HIGHER) (2022)  
BUT COVERAGE IS ONLY 82% IN SUB-SAHARAN AFRICA AND 68% IN OCEANIA\*



- Global manufacturing growth slowed down to 3.3% in 2022, from 7.4 per cent in 2021. The rate of progress in least developed countries (LDCs) is way behind the necessary rate to reach the target of doubling the manufacturing share in gross domestic product (GDP) by 2030.
- As of 2022, 95% of the world's population are covered by 3G or higher mobile broadband network, increasing from 78% in 2015. Extending coverage to the remaining 5% of the population is challenging. There are Between 2015 and 2022, 4G network coverage doubled, reaching 88% of the world's population.
- As of 2021, 19% of the world's population is covered by 5G network.
- Global carbon dioxide (CO<sub>2</sub>) emissions from energy combustion and industrial processes grew by 0.9%, reaching an all-time high of 36.8 billion metric tons, well below global GDP growth. This figure has reverted to a decade-long trend of decoupling emissions and economic growth.
- There is a growth in the use of clean and renewable energy which is helping control additional emissions.
- Transitioning to medium- and high-tech industries contributes to green growth as these activities are generally less energy- and emission-intensive. Despite a slowdown in global manufacturing, medium- and high-technology industries are showing strong signs of recovery.

TARGET 9-1



DEVELOP SUSTAINABLE, RESILIENT AND INCLUSIVE INFRASTRUCTURES

TARGET 9-2



PROMOTE INCLUSIVE AND SUSTAINABLE INDUSTRIALIZATION

TARGET 9-3



INCREASE ACCESS TO FINANCIAL SERVICES AND MARKETS

TARGET 9-4



UPGRADE ALL INDUSTRIES AND INFRASTRUCTURES FOR SUSTAINABILITY

TARGET 9-5



ENHANCE RESEARCH AND UPGRADE INDUSTRIAL TECHNOLOGIES

TARGET 9-A



FACILITATE SUSTAINABLE INFRASTRUCTURE DEVELOPMENT FOR DEVELOPING COUNTRIES

TARGET 9-B



SUPPORT DOMESTIC TECHNOLOGY DEVELOPMENT AND INDUSTRIAL DIVERSIFICATION

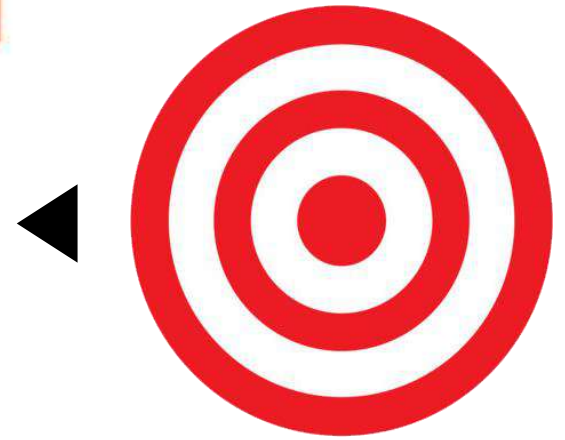
TARGET 9-C



UNIVERSAL ACCESS TO INFORMATION AND COMMUNICATIONS TECHNOLOGY



TAL Transformers™  
NURTURING SOCIAL INNOVATION MINDSET



TARGETS

**9.1** Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all



**9.2** Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries

**9.3** Increase the access of small-scale industrial and other enterprises, in particular in developing countries, to financial services, including affordable credit, and their integration into value chains and markets

**9.4** By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities

**9.5** Enhance scientific research, upgrade the technological capabilities of industrial sectors in all countries, in particular developing countries, including, by 2030, encouraging innovation and substantially increasing the number of research and development workers per 1 million people and public and private research and development spending

**9.A** Facilitate sustainable and resilient infrastructure development in developing countries through enhanced financial, technological and technical support to African countries, least developed countries, landlocked developing countries and small island developing States 18

**9.B** Support domestic technology development, research and innovation in developing countries, including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities

**9.C** Significantly increase access to information and communications technology and strive to provide universal and affordable access to the Internet in least developed countries by 2020



# GOAL 9: INDUSTRY, INNOVATION AND INFRASTRUCTURE

BY: MARGREET DE HEER



**TAL Transformers™**  
NURTURING SOCIAL INNOVATION MINDSET

WE ALL NEED TO BE **CONNECTED** SO WE CAN WORK TOGETHER TOWARDS INNOVATION!

WE WILL EXPAND AND IMPROVE **INFRASTRUCTURE**...

...PROMOTE INCLUSIVE SUSTAINABLE INDUSTRIALIZATION...

...ENSURE SMALL BUSINESSES GET ACCESS TO **CREDIT AND TECHNOLOGICAL SUPPORT**...

...AND PROVIDE **AFFORDABLE INTERNET ACCESS FOR ALL!**





**TAL Transformers™**  
NURTURING SOCIAL INNOVATION MINDSET

How do we achieve the #GlobalGoals by 2030?



**Mobilize everyone, everywhere**



**Demand urgency and ambition**



**Design new innovations and solutions**



**DECADE OF ACTION**

## SUSTAINABLE DEVELOPMENT GOALS

