

Sustainability Development Goal 9

Industry, Innovation and Infrastructure

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(The Video can be found at www.rsm.nl/sdgs/9)

[From SDG 17] The 2030 Agenda for Sustainable Development, adopted by all United Nations Member States in 2015, provides a shared blueprint for peace and prosperity for people and the planet, now and into the future. At its heart are the 17 Sustainable Development Goals (SDGs), which are an urgent call for action by all countries - developed and developing - in a global partnership. They recognize that ending poverty and other deprivations must go hand-in-hand with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.



SUSTAINABLE DEVELOPMENT GOAL 9

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



TARGETS	INDICATORS
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	9.1.1 Proportion of the rural population who live within 2 km of an all-season road
	9.1.2 Passenger and freight volumes, by mode of transport
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	9.2.1 Manufacturing value added as a proportion of GDP and per capita
	9.2.2 Manufacturing employment as a proportion of total employment
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	9.3.1 Proportion of small-scale industries in total industry value added
	9.3.2 Proportion of small-scale industries with a loan or line of credit
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	9.4.1 CO2 emission per unit of value added
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	9.5.1 Research and development expenditure as a proportion of GDP
	9.5.2 Researchers (in full-time equivalent) per million inhabitants
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	9.A.1 Total official international support (official development assistance plus other official flows) to infrastructure
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.B.1 Proportion of medium and high-tech industry value added in total value added
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	9.C.1 Proportion of population covered by a mobile network, by technology

We live in a world where we were allowed to create so much wealth in human history. However, unfortunately, we have badly brought up **imbalanced development, inequality and unsustainability**. Think of the continuous imbalance and inequality in the manufacturing value added per capita, which is for example only 100 US\$ in the least developed countries compared to over 4.500 US\$ in Europe and Northern America in the manufacturing industry.

Such phenomena do not only exist between nations and industries, but also exist in the field of **innovation**. Although innovation is meant to help **liberalize our labour work** from inefficient process, we still struggle with our "**exaggerated unnecessary desires**" and **fail** in taking our responsibility to a **broader community**, including our offspring. The core of this issue has two dimensions. *The first* is an **imbalanced unequal access to, and distribution of resources** among people at the same time. This is called **Panel Wellbeing Failure (PWF)**. The second is the non-inclusiveness of our current business model to our *offspring's* well-being in the long run, which is **Timeline Well-being Failure (TWF)**. Moreover, the integration of PWF and TWF became **the source to exhaust our planet**.

So, how can we deal with these dimensions and prevent severe scenarios for people and our planet? In this video I will explain what is needed to **shift the dynamics** behind PWF and TWF, and how to work towards **balanced development** for a **sustainable and equal** global society.

Let's have a closer look at PWF and TWF and the dynamics behind them.

Firstly, the Panel Well-being Failure- PWF calls upon us to form a **joint force**, at both the **cognitive and behavioural level**.

1. At a **cognitive level**, we need to **embrace inclusiveness** and **disregard discrimination**. For this, we need a **holistic view** to social-economic accountability that goes beyond the economic dimension. We should **appreciate the uniqueness of** each other's talent, and consider it as an exceptional driver for innovation.
2. We need more than agreement of intention. At the behavioural level, we have to **take actions** to pursue what we want for the **whole** community. We need to build new regulations and legal reframing **beyond national borders**. **Via this way, we can** converge the gap, and help **inferiors** to learn and catch up, as well as help **superiors** to grow into an even better entity.

Secondly, the **traditional economic accountability** has to fade out to solve the Timeline Well-being Failure. We should prioritise an alternative measure system that incorporates circular economy. Technology and innovation can help us building it up via a non-linear eco-system, therefore a closed loop from waste to resource can be built up.

Thirdly, to prevent a disaster caused by the **interaction** between Panel Wellbeing Failure and Timeline

Wellbeing Failure, a **long run strategy** at a **global level**, including an inclusiveness vision and sustainable infrastructure for the future industry and circular economy, needs to be supported. For instance, the Belt Road Initiative, initiated by China in 2013 is a development strategy aiming to bring joint prosperity and infrastructure development to more than 150 countries and international organizations, all over the world.

Once we shift the dynamics behind PWF and TWF, a **new concept of globalization** will emerge. **New Globalization** means each actor of a new system is not only **independently self-sustained** but also **ecologically dependently cooperated**. In this way, *a sustained local but interacted global community* can evolve.

To get there we need to bear in mind that without technology and innovation, industrialization will not happen, and without industrialization, development does not happen. But we need a **more adaptive innovation approach**. **An approach that** creates new jobs and demand while replacing old ones with AI. This means that the exclusiveness-focused jobless innovation needs to be evolved to ***"inclusiveness focused sustaining innovation"***.

When we relate this to the SDGs, we can see that SDG 9 is actually the backbone of all SDGs. SDG9 is the engine to drive the industrial transition, and is the economic foundation of society and community. Besides, innovation in infrastructure and industrialization is the key to facilitate revolution to the new order of the world. In a new world with a sustained and sustainable system, we will be able to avoid Time-line Well-being Failure and Panel Well-Being Failure.

Let's embrace our positive force to cure the issues of our current globalised world. Our joint efforts can move us to a world where a genuinely sustained New Globalization will be born.



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