



Industry and Infrastructure

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



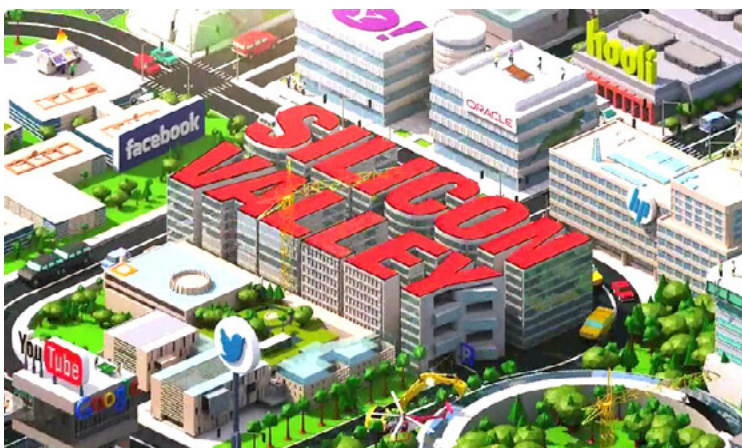
“By 2030, 193 Heads of State and Governments agree to build resilient infrastructure by promoting inclusive and sustainable industrialization and fostering innovation to

- *significantly raise industry’s share of employment, doubling its share in least-developed countries*
- *increase the access of small-scale industrial enterprises to affordable credit*
- *enhance scientific research in developing countries and substantially increase the number of research and development workers per 1 million people*
- *provide universal and affordable access to the Internet in least-developed countries”*

UN Sustainable Development Goal 9

Good News: In 2018, 96% of the global population lived in range of a mobile phone signal, and 90% had access to 3G or higher network quality.

Bad News: 2.6 billion people in Least-Developed Countries do not have access to reliable, constant electricity



Peace Child ran an International Job Creation Summit in London some years ago – where a government minister bewailed the fact that too many jobs were disappearing to the Internet. But – the internet is creating millions of jobs – and spreading those jobs widely around the world: companies in Germany can employ graphic designers in the Philippines without ever meeting each other. Fund managers in Hong Kong can arrange investments for Brazilians over the internet. Yes!

whole industries may disappear completely in the next few decades BUT – experience has shown that innovative entrepreneurs, using the internet, can fill those gaps, make people richer and provide livelihoods for many millions of people.

That’s why this goal is central: it **requires** governments to provide universal access to the Internet. Also every survey PCI has ever done about getting / creating jobs, ‘access to affordable credit’ has emerged as the biggest obstacle for young people in less developed countries. This goal addresses that issue squarely. Governments need to flexible loan guarantees for youth business start-ups so that youth can create new industries and services in their countries.



Balance Sheet

Achievements

\$59 billion USD was sent to developing countries in 2017 for the development of infrastructure.

The UN measures 'manufacturing value added' (MVA), and found that in developing nations it **increased by 2.5% every year** between 2015 and 2018.

The amount of money invested, worldwide, in research and development of new technology was **over \$2 trillion USD** in 2016. [3]

Globally, around **500 million people** are employed in manufacturing jobs, and this figure is rising in developing nations. [2]

In 2018, **96% of the global population** lived in range of a mobile phone signal, and 90% had access to 3G or higher network quality. [3]

Between 2010 and 2016, the carbon intensity of industries **fell by around 3%** - this could reflect the beginning of a trend of increasing GDP but falling carbon emissions. [3]

Government action through tax, subsidy and infrastructure-building can drive the right kind of innovation: it has driven the growth of renewable energy in OECD countries which has cut these countries' carbon footprint considerably. [5]

Work Left to Do

2.6 billion people in LDCs do not have access to reliable, constant electricity. [1]

This is far below the target of doubling MVA, as a share of total GDP, by 2030. Developed nations also have far greater MVAs. [2]

In Sub-Saharan Africa, there are still only 91 researchers per million, compared to 1163 per million globally (2016). [2]

Only 31.5% of small industries have access to financial services (such as loans), with stark regional differences. [3]

This does not necessarily mean people have access to these networks. Over 4 billion people lack internet access - and only 10% of these do not live in the developing world. [3]

LDCs, landlocked developing countries and small island developing countries still account for very little of the global air travel and freight transport, ranging from 1% to 2.7% of the global total - less efficient transportation limits economic development. [2]

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Sources

1. [UNDP - SDG9](#)
2. [SDGs Knowledge Platform - Goal 9](#)
3. [SDGs Report 2019 - Section 9](#)
4. [SDGs Report 2017 - Section 9](#)
5. [International Energy Agency \(IEA\)](#)

Points to Ponder

- Should governments be involved at all in research, innovation and the development of industrial policy? Would it be better left to the market?
- Governments control taxes and subsidies but, as the [gilets jaunes](#) protests in France showed, people don't always feel sympathetic towards Green Taxes. It's not just the French: some G20 and G77 countries are deeply reluctant to reduce their fossil fuel subsidies as many of their poorest farmers rely on them to get their goods to market.
- How do you choose where to innovate? – do you just look at the world's biggest problems and brainstorm innovations in those areas? Or do you widen the scope and allow every one to do 'blue-sky thinking'?
- Is crowd-funding the answer to 'affordable credit'? Can crypto-currencies help? Or are they a distraction?
- The goal seeks to 'double industry's share of the employment market...'. Is that a realistic aspiration? Is it even desirable? How many of us really want to work in factories?



Take Action

- Check out the big employers in your area: How many of them would you really want to work for? If not – why not? Begin to plan your career path by building on what's possible to do immediately in your area, within a mile of your school gate.
- Innovation is clearly a path to great wealth and life satisfaction – if successful! So – think about where you could innovate? Brainstorm ideas with friends and try to see where the gaps in the global and your local market places are that people might pay to fill – and see how you can build the perfect product or service to fill that need.
- Collect and/or donate your old computers to organisations that distribute them to least developed countries.
- Support and/or donate to initiatives to “bridge the digital divide” between North and South.
- Learn what it means to be entrepreneurial? Figure out what a ‘viable business plan’ is – and how to create one. Understand why being entrepreneurial and understanding how a business plan works is useful in every profession, not just running a business – but also in running a family home, or a sports club.

