The impact of open and disaggregated technologies and the contribution of TIP and other industry initiatives

FUTURE TELECOMS NETWORK REQUIREMENTS CAN BE BETTER MET WITH AN OPEN AND DISAGGREGATED SUPPLY-CHAIN ECOSYSTEM

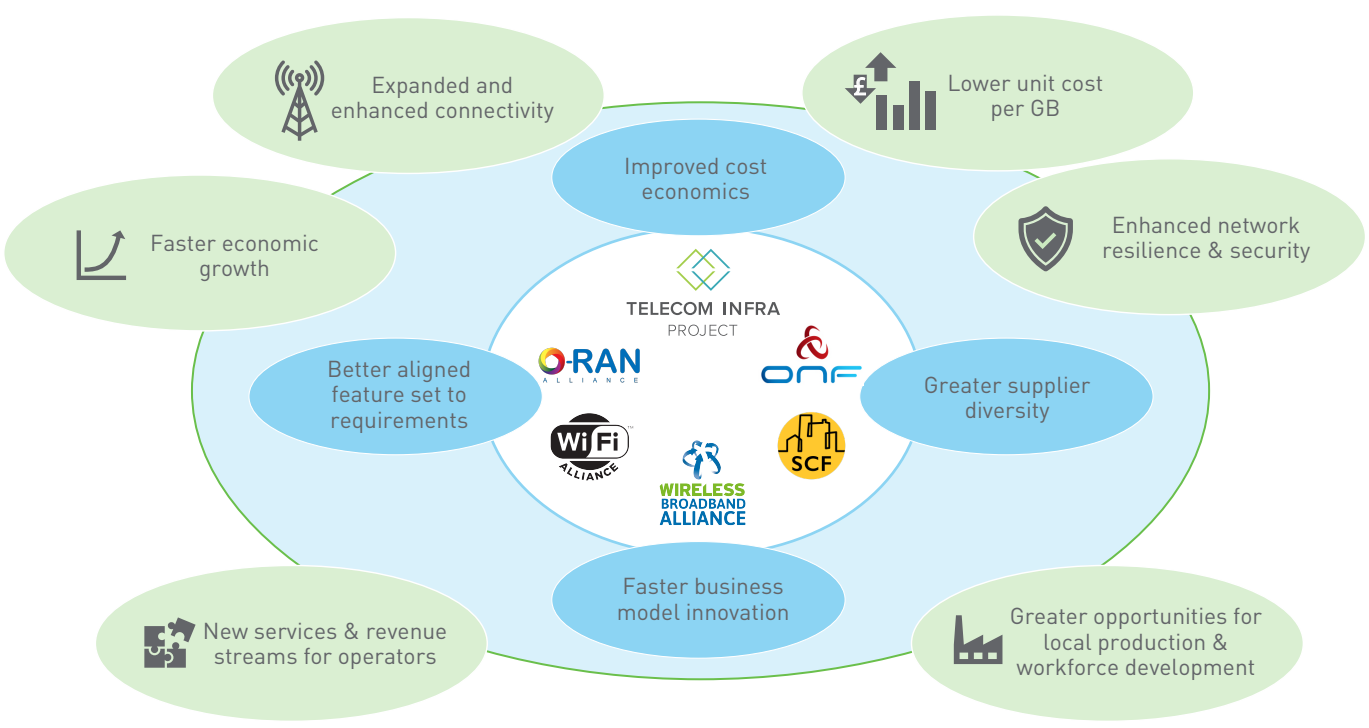
Priorities driving future telecoms network development

- Introducing advanced technologies and new use cases for individuals and enterprises
- Improving connectivity in rural areas where people lack access and affordability
- Ensuring that networks can cope with demand due to unexpected events such as Covid-19

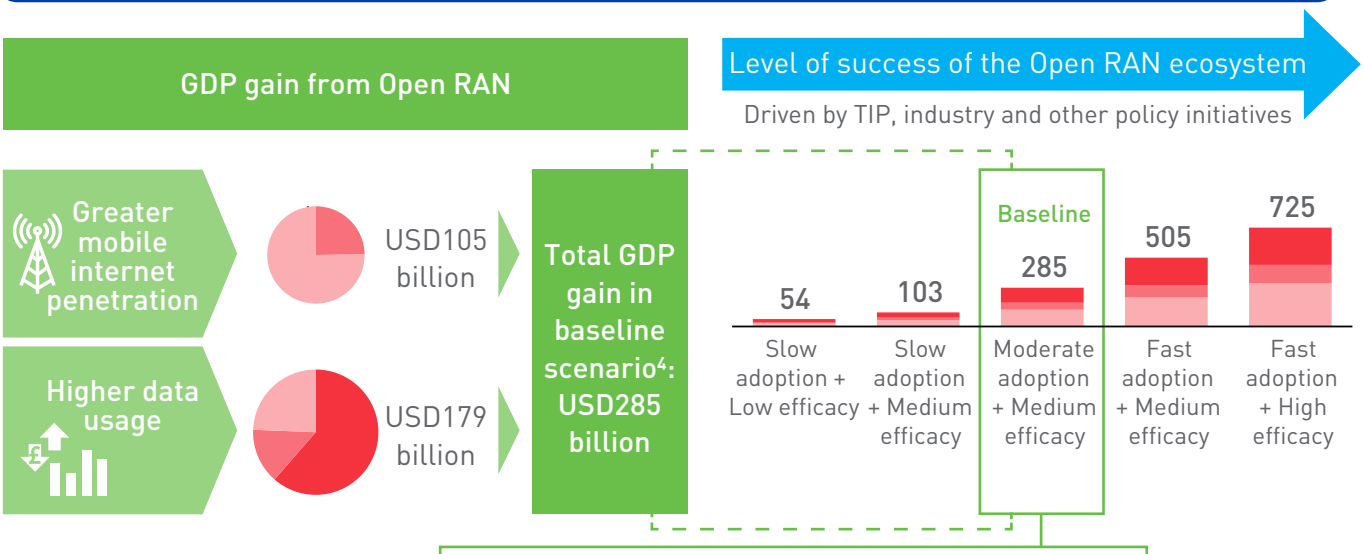
Differences between closed and open supply chains

	Closed Environment	Open, disaggregated
Vendors	Few	Many
Interfaces	Proprietary	Open
Roadmap	Vendor led	Operator led
Resilience	Vendor-dependent due to lock-in	Improved from greater choice
Innovation	Business as usual	Faster, more diverse

TIP DRIVES DEPLOYMENT OF OPEN AND DISAGGREGATED SOLUTIONS, AND WORKS ALONGSIDE OTHER ENTITIES[1] TO REALISE BENEFITS



THE BENEFITS OF OPEN AND DISAGGREGATED SOLUTIONS TRANSLATE INTO HIGHER GDP[2], AN ECONOMIC IMPACT THAT CAN BE FURTHER ACCELERATED BY INITIATIVES SUCH AS TIP[3]



Adoption inputs	Fast	Moderate	Slow
Percentage of subscribers served with Open RAN networks (end of 2030)			
High-income countries	81%	51%	24%
Middle-income countries	86%	54%	26%
Low-income countries	90%	57%	27%

Efficacy inputs	High	Medium	Low
RAN cost intensity reduction vs. counterfactual[5] (%)			
RAN opex (2030)	-15%	-10%	-5%
RAN capex (2030)	-30%	-20%	-10%
Acceleration of 4G/5G take-up[6] vs. counterfactual (years)			
By 2030	1.5	1.0	0.5

Across countries within each group: High-income countries; Middle-income countries; Low-income countries

POLICY MAKERS ARE EXPLORING WAYS TO SUPPORT SUPPLY-CHAIN DIVERSIFICATION TO BUILD NETWORK RESILIENCE AND IMPROVE CONNECTIVITY

Stakeholder co-ordination

Foster collaboration among operators, vendors, and government to launch testbeds and to inform policy approaches

Fiscal tools

Consider fiscal tools (e.g. R&D incentives, development financing) to stimulate supply and demand

International alignment

Share and adopt best practices on policy initiatives, aligning approaches to avoid market fragmentation and achieve economies of scale

For more details please see:

https://www.analysysmason.com/impact-of-open-and-disaggregated-technologies-and-TIP

[1] All entities shown are key to driving open standards and disaggregation. TIP focuses on driving actual product development and testing to accelerate deployment

[2] Measured in real USD billion (2020 prices)

[3] Sensitivity analysis is used to illustrate the impact of slower or faster adoption of Open RAN, and how effective Open RAN can be in driving cost efficiency and adoption of advanced technology, stimulated in part by TIP

[4] Total GDP gain from greater mobile internet penetration (USD105.2 billion) and higher data usage (USD179.4 billion) adds up to USD285 billion when rounded

[5] The impact assessment approach used involves assuming a change in certain operational metrics in a scenario with Open RAN compared to a scenario without Open RAN (called the 'counterfactual'), and estimating the resulting incremental impact on macroeconomic indicators such as GDP

[6] Accelerating the take-up of advanced technologies such as 4G and 5G would increase data usage in the market, which has a positive impact on GDP