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How Digital Integration and Expansion is Shaping Job Creation and Enterprise Growth

A view from across the world & Nepal

9 October 2020

Abhineet Kaul & Mangesh Lal Shrestha
Frost & Sullivan

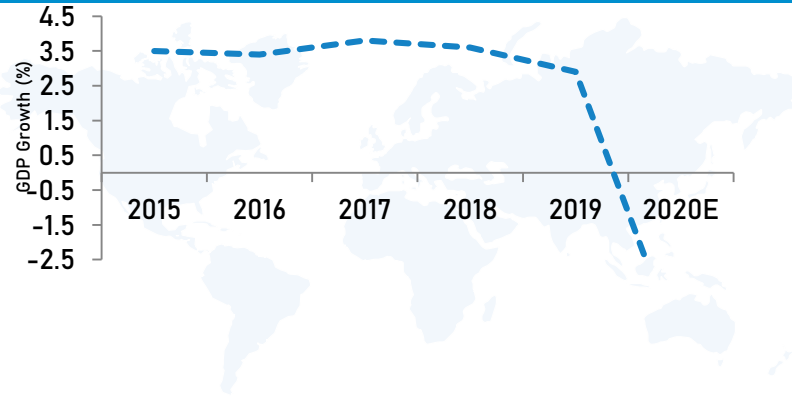
THE CHANGED GROWTH ENVIRONMENT



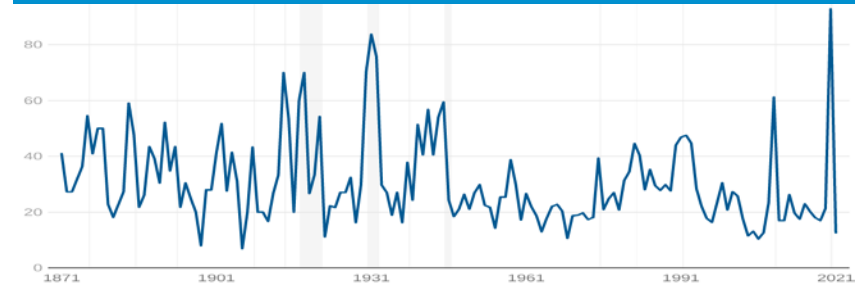
World GDP Growth to Plunge 5.4% Under Severe Pandemic Scenario

The world would enter recession in 2020

Scenario-Based Impact on GDP Growth, Global, 2015-2020



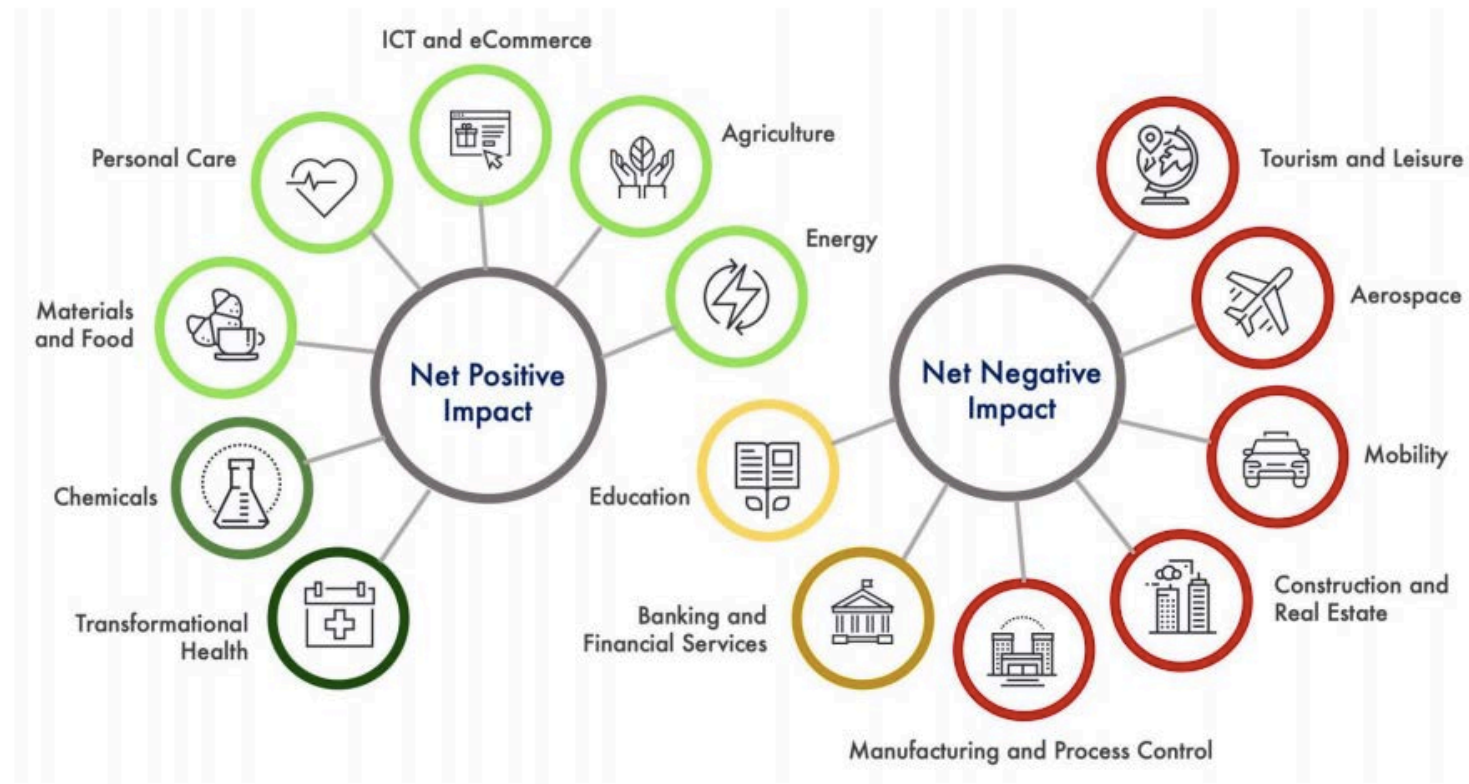
Share of Countries in Recession, 1870-2020



The proportion of economies with an annual contraction in per capita GDP. Shaded areas refer to global recessions. Data for 2020-21 are forecasts.
Source: World Bank

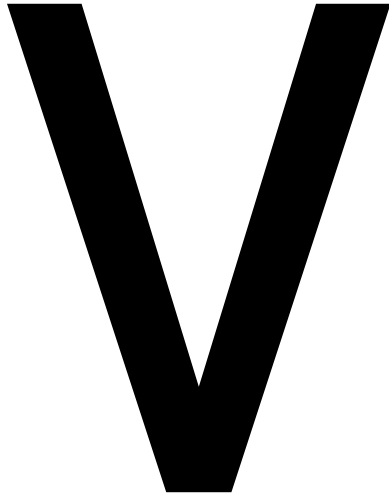
Source: IMF; Worldometer; Frost & Sullivan

What has been COVID-19 Impact Across Sectors?

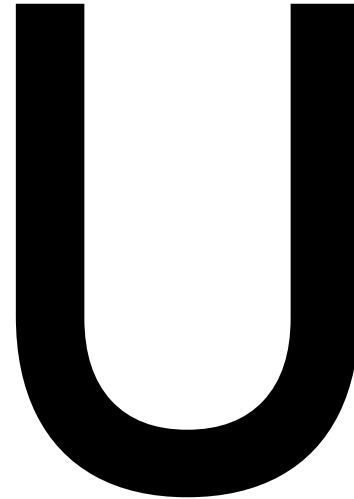


Will the Market Recovery be a “V” or a “U” ? And What Will The Recovery Look Like ?

Short turn around, quick recovery, market back to normal by end of next summer



Market stays at the bottom for a while, 12+ month recovery



Source: IMF; Worldometer; Frost & Sullivan

What is common between these household firms?

Uber



CLOUDERA

IMPACT TO DIGITAL INTEGRATION

Look Ahead, Anticipate, Adjust – the top trends for future (1/2)

Transhumanism



Autonomous World



Connected Living



Industry 5.0



Digital Reality as Frontier Technology



Heterogeneous Society



Source: Frost & Sullivan

Look Ahead, Anticipate, Adjust – the top trends for future (2/2)

Data as 21st Century Oil



Marketplace Everywhere



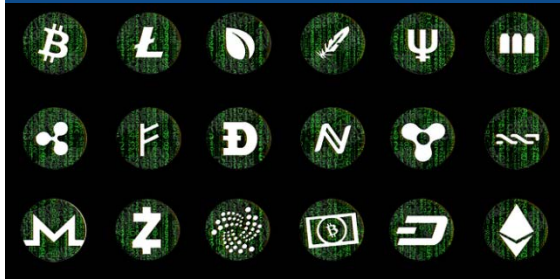
'Uberization' of Industries



Concept of 'Zero' World



Rise of Platform Economy

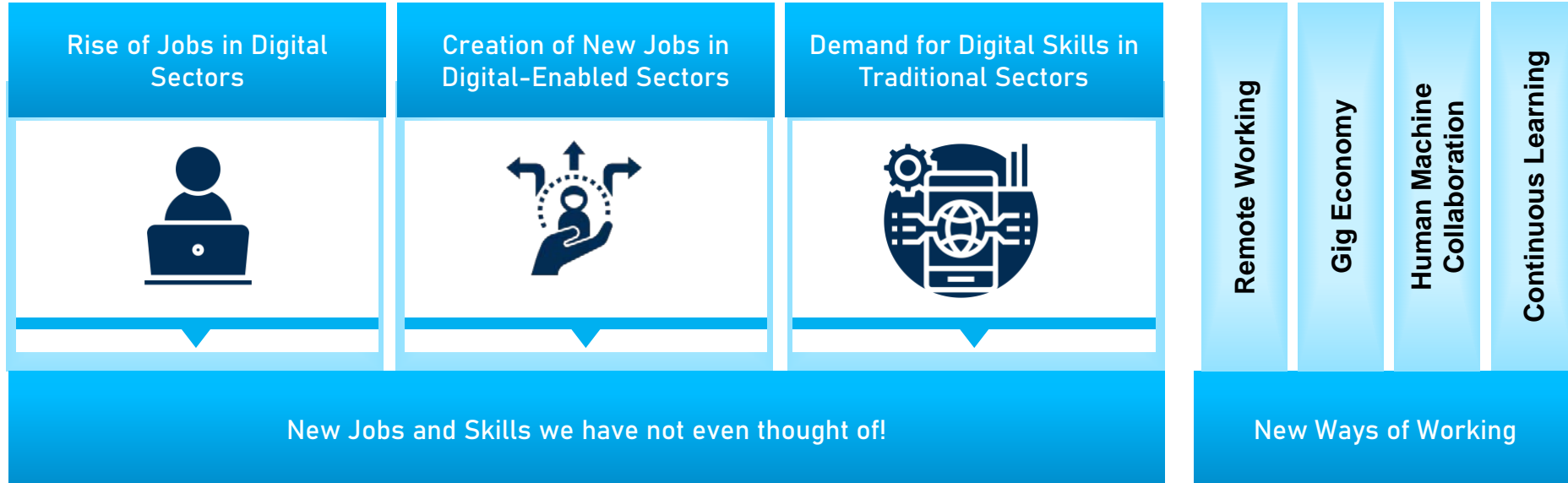


Zero Latency World

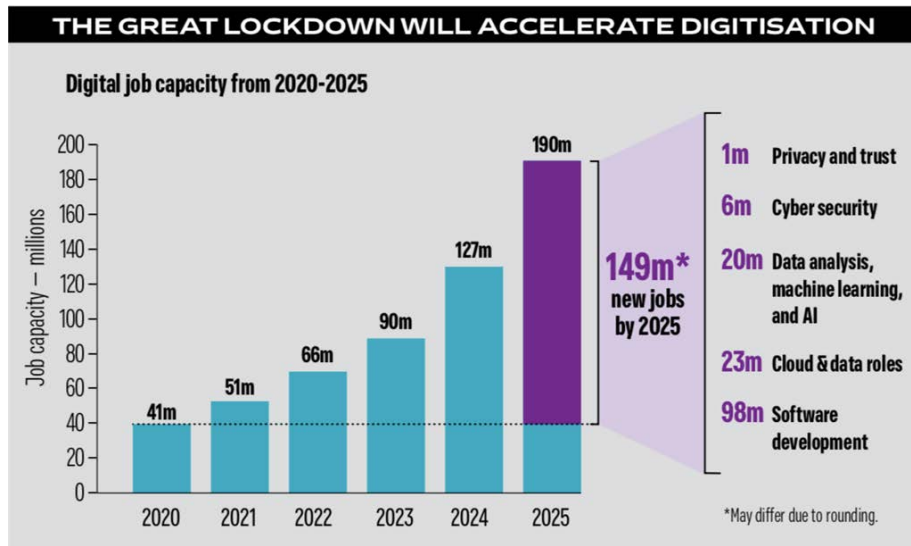


Source: Frost & Sullivan

What does it mean for Future of Work?



We are already witnessing the growth in digital jobs and demand for digital skills...



SOURCE: Microsoft Data Science utilising LinkedIn Data

Bloomberg | Quint Markets Business BQ Blue Exclusive Videos Research Reports >

Zoom Opens New Data Center in Singapore, Plans to Add More Jobs

Yoolim Lee

Published on August 18 2020, 11:22 AM
Last Updated on August 18 2020, 5:05 PM

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INTERNET NEWS APRIL 13, 2020 / 10:27 PM / UPDATED 6 MONTHS AGO

Amazon to add 75,000 jobs as online orders surge during lockdowns

By Reuters Staff

3 MIN READ f t

Source: Frost & Sullivan

... and government around the world have started to leverage digital skill development to define their post-COVID economies

DIGITAL SKILL NEWS

International Version

Kathmandu

9 October 2020

Digital Agenda in Italy

Italy has adopted a comprehensive action plan (“Digital Agenda”) which sets quantifiable objectives to achieve by 2020 in digital skills development for workers and employers. Its implementation requires a whole-of-government approach and strict coordination and cooperation with local authorities and stakeholders.



Introduction of T-Levels in England in 2020

The United Kingdom announced the introduction of T-Levels in England in 2020, a new technically focused qualification. Courses have been developed in collaboration with employers and businesses so that the content meets the needs of industry. An additional £500 million has been announced by the UK Government to help providers meet the costs of additional teaching hours and organizing industry placements, once T Levels have been fully rolled out. The UK Government has also announced £170 million of funding to set up twelve Institutes of Technology across England.

AI Singapore Apprenticeship Programme

The Artificial Intelligence Apprenticeship Programme (AIAP) is a national programme in Singapore, designed to address skills shortages in AI and machine learning through developing a strong pipeline of AI talent. The goal is to train 500 AI engineers over the next few years under the programme.

Countries, such as Singapore, which have a holistic Digital Plan have an ability accelerate the growth...

SMEs Go Digital

SG Digital Office

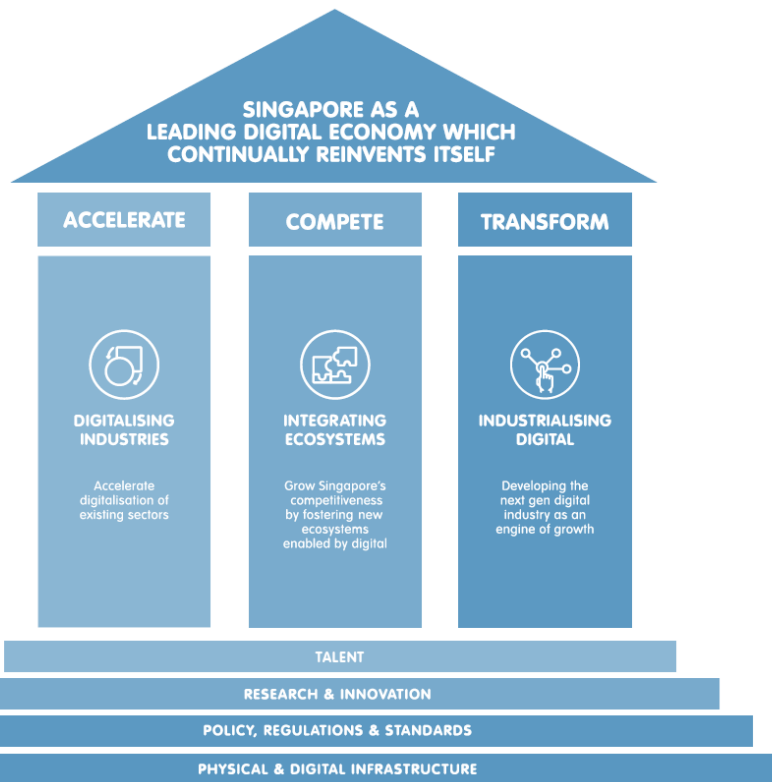
Open Innovation Platform

Punggol Digital District

Goal

Strategic
Priorities

Enablers



Data Flow and Privacy Rules

TechSkills Accelerator

Digital Industry Singapore (DISG)

Digital Maker Programme

Source: IMDA, Singapore

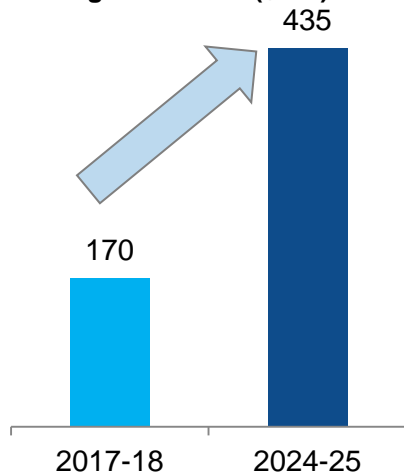
... and countries, such as India, have seen the benefits of investment in digital adoption over the years



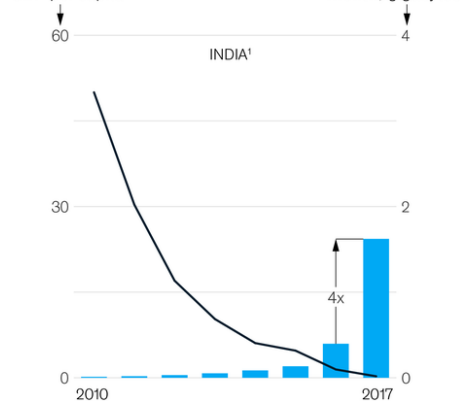
- ***Launched in 2015 to accelerate digital adoption and digital literacy across the country***



GDP Contribution of Core Digital Sectors (\$ Bn)



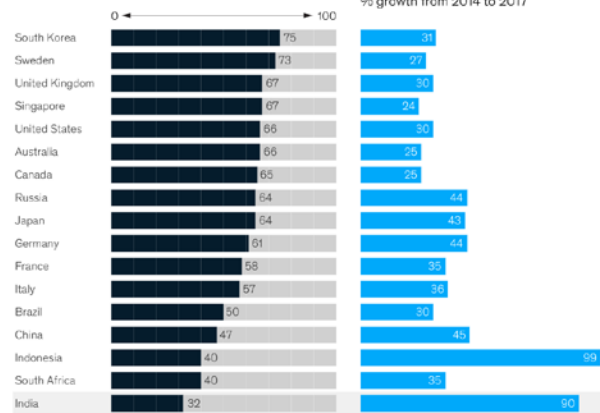
Price per gigabyte of data, % of monthly GDP per capita **Data consumption, per connection, per month, gigabytes**



¹Per Telecom Regulatory Authority of India, consumption rose to 8.32 gigabytes in September 2018.
Source: Analysys Mason, as of January 9, 2019; United Nations;

India is the second-fastest digital adopter among 17 major digital economies.

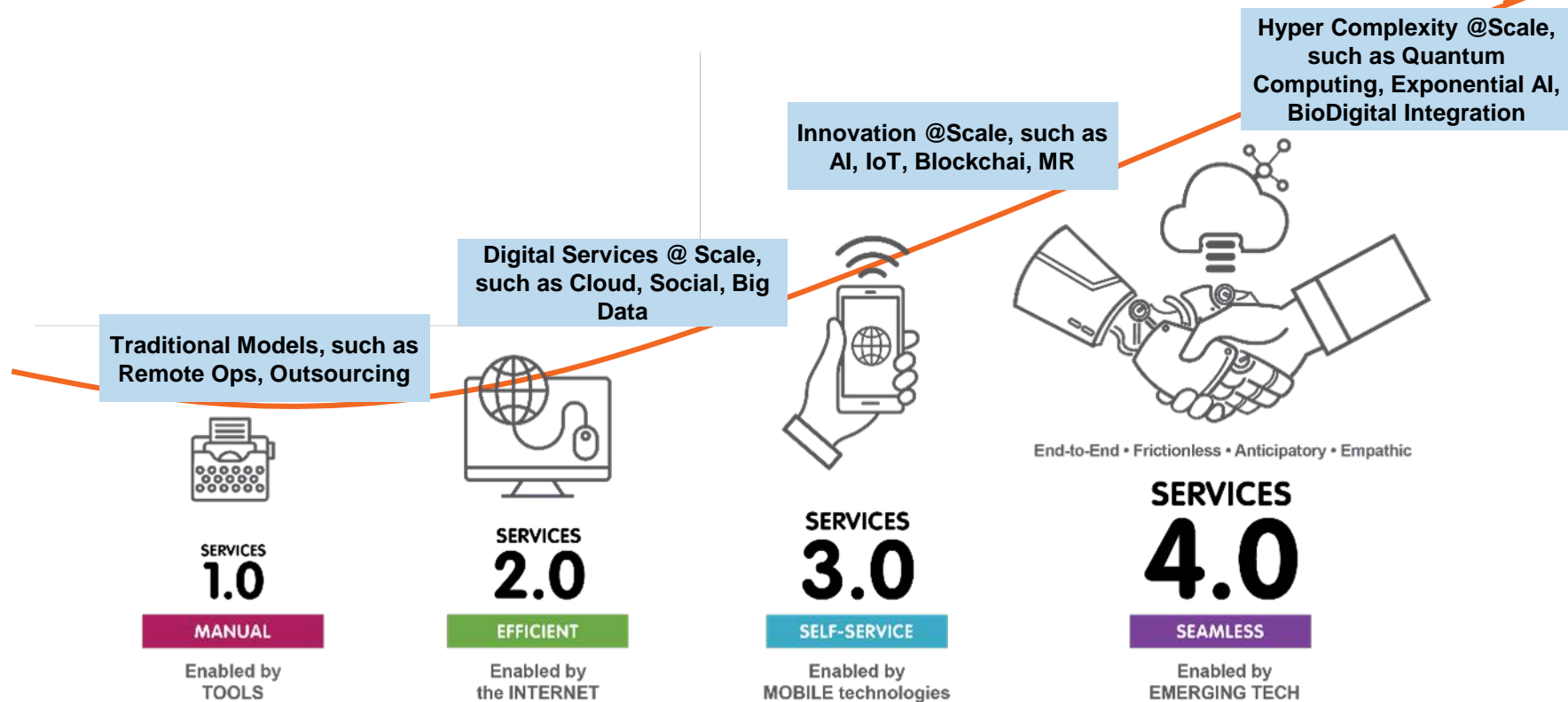
Country Digital Adoption Index,¹ score, 2017



¹McKinsey Global Institute index that represents digital-adoption level of 17 major digital economies based on 30 metrics.
Source: Anoma Technologies; Analysys Mason; Digital Adoption Index by World Bank; Euromonitor; ITU; OpenSignal; Ovum; Strategy Analytics; United Nations; We Are Social; McKinsey Global Institute analysis

Source: McKinsey & Co.

The future of innovation and digitalisation is not linear, and Nepal could possibly leapfrog the development stages



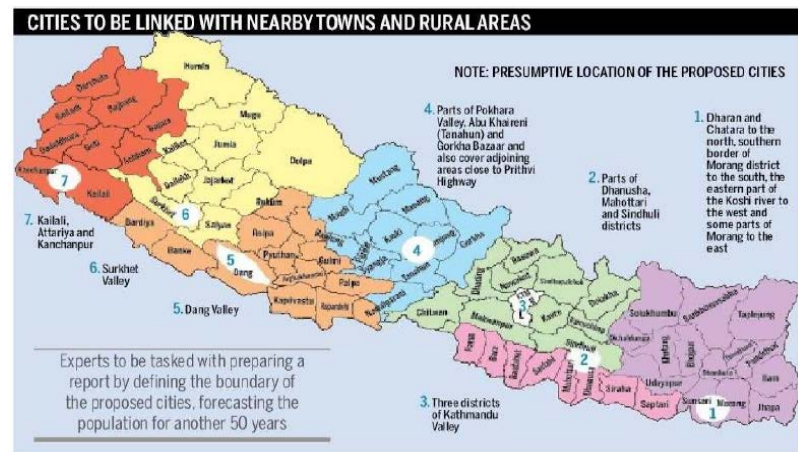
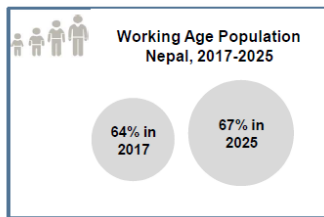
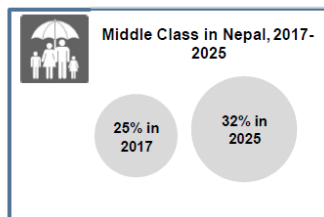
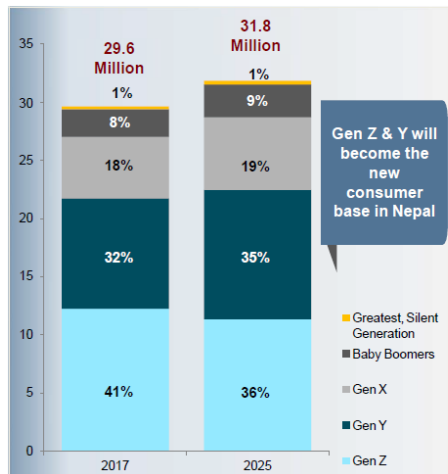
Digital Integration & Expansion

Job Creation & Enterprise Growth in Nepal



Megatrends Impacting Future of Nepal

The Gen Z and Gen Y in Nepal will emerge as a new set of consumers demanding more innovation and personalization while being tech-savvy and career multi-taskers



More than a third of population will belong to the middle class in Nepal and 67% of Nepali population will be of working age by 2025

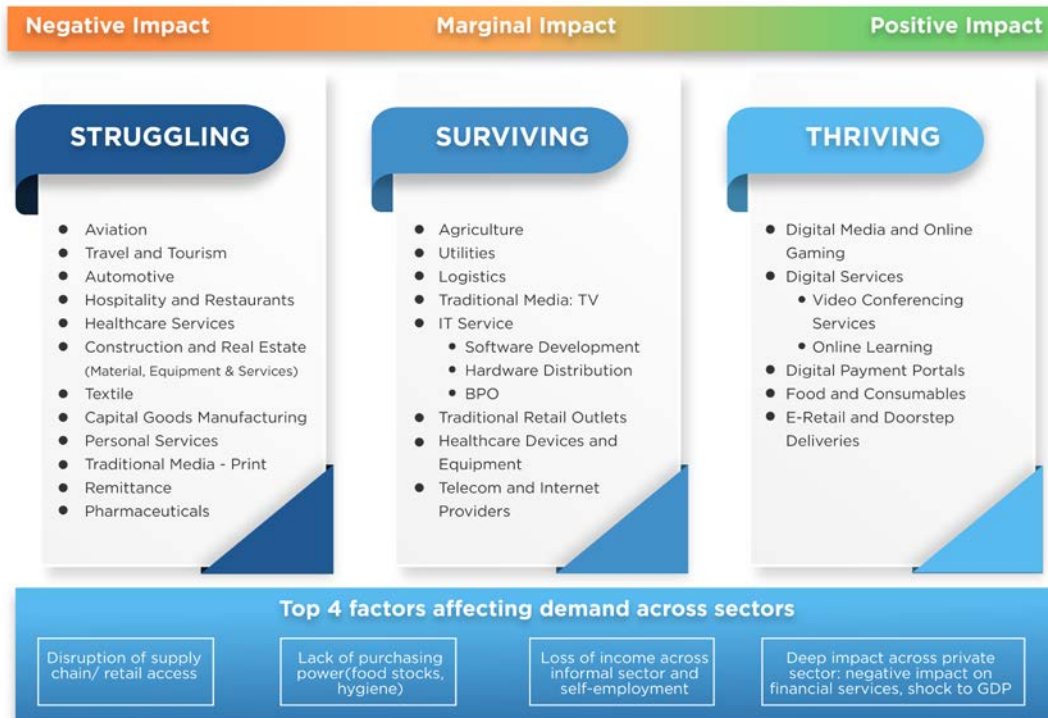
Nepal to have 8 Mega Cities (>8 Million population) by 2025
 At least Rs 5 Billion MoUD development budget of every Mega City



CONNECTIVITY & CONVERGENCE : NEPAL – A “MOBILE FIRST” COUNTRY

COVID-19 Impact in Nepal

RANGE OF IMPACT ACROSS DIFFERENT NEPALESE SECTORS



- Similar impact on businesses across sectors in Nepal.
- Emergence of Digital as thriving based on increase of demand of essential services

COVID has accelerated Digital Adoption across the world, more so in Nepal

DUE TO COVID-19 AND THE SUBSEQUENT LOCKDOWN, USE OF DIGITAL SERVICES HAVE INCREASED SIGNIFICANTLY.

The rise of e-commerce has resulted in increased digital transactions. Data management has become important, and digitization is needed to ensure data security.





Frost & Sullivan Institute

CONQUERING COVID-19

STRATEGY FOR MAKING NEPAL STRONGER AND RESILIENT

ADOPT - ADAPT - LEAPFROG

Strategy Exploration
Respond-Reset-Rebound

Strategic Imperative to Successfully Conquer COVID-19

Multi-stakeholder Cooperation

Digital Transformation

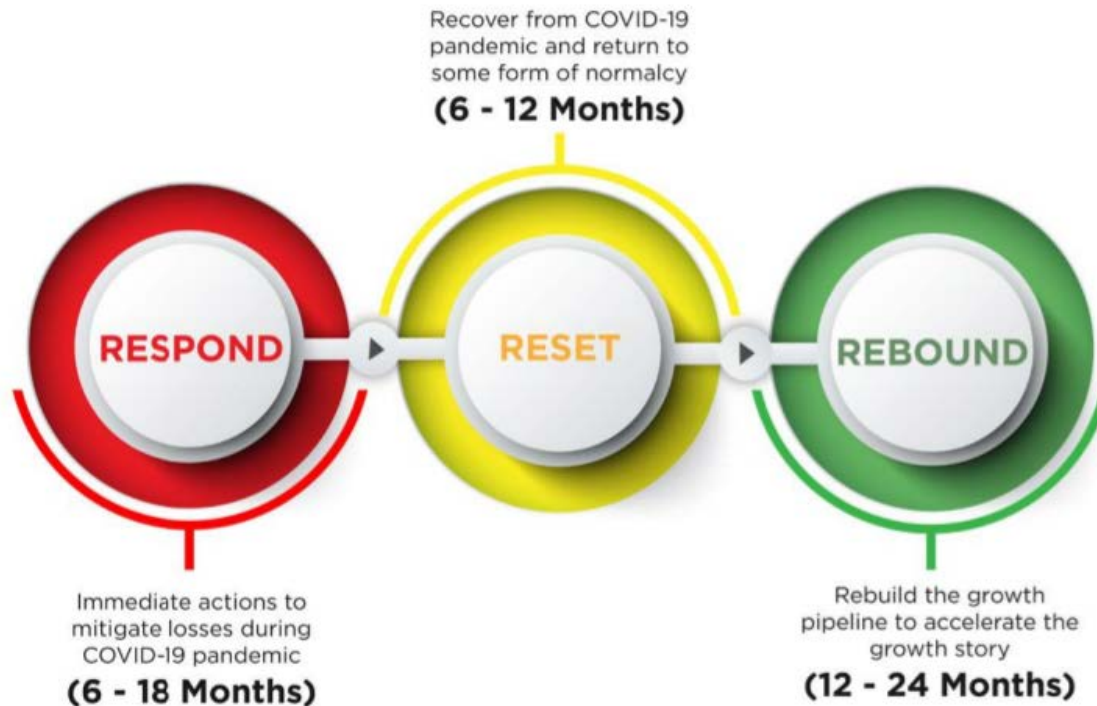
Agile and Citizen-Centric government services, Response and Policy Reforms

Investment and Job creation

Cross border Issues

The Strategy

Digital Shall Accelerate the Rebound



Digital is being leveraged at every level

Covid-19 Public Health Crisis

- Effective Contact Tracing and Strategic Rapid Mass Testing
- Quarantine and Isolation
- Rapid Healthcare Service Delivery and Essential Patient Care
- Healthcare Worker Safety and Protection
- Precautionary and Support Regulations
- National Health are System Preparedness and Development
- Remedy Distribution
- Strategic Need Assessment Execution
- Implementation of healthcare policy reforms and exit from healthcare precautionary restrictions
- Integrating and Democratizing the remedy of COVID-19 into Health System of Nepal
- Enhancing healthcare system and infrastructure of Nepal for equitable and quality healthcare for the citizens

Social Impact

- Unemployment and Labour Force Protection
- Secured Provision to Essential Services such as food, utilities, health, education to name few
- Physical Safety and Security
- Psychological Assistance
- Robust Social Protection Systems
- Environment and WASH Security
- Education and Healthcare Systems
- Communication Strategy
- Strategic Need Assessment Execution
- Communication and Terminating Social Precautions
- Citizen Centric Essential Service Delivery
- Implementation of Disaster Management Framework and Preparedness

Economic Impact

- Economic Stimulus Measures and Strategies
- Other Support Programs and Initiatives
- Gradual phasing out of lockdown and essential services delivery
- Economy Preparedness and Development
- Economic Resilience, Strengthening and Continuity
- Import Substitution and Export Increment Strategy and Program
- Strategic Need Assessment Execution
- Economic Policy Reform Implementation and exit strategy of crisis stimulus policy
- Innovative Investment Promotion
- MSME, Entrepreneurship development and Job Creation
- Resilient economy through imports substitution and strategic industrialization
- Digital and Knowledge economy with culture of innovation

The Way Forward and Innovation Opportunities

Recovery Plans in Nepal Necessitate a digital-savvy and Uniquely Skilled Workforce

1

Building Resilience

2

Tackling
Socio-Economic
Impact

3

Opportunities to Go
Green

4

Digital
Opportunities for
Leapfrogging

2019 DIGITAL NEPAL FRAMEWORK

Unlocking Nepal's Growth Potential



Government of Nepal
Ministry of Communication
and Information Technology

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1

NATION

8

SECTORS

80

DIGITAL
INITIATIVES

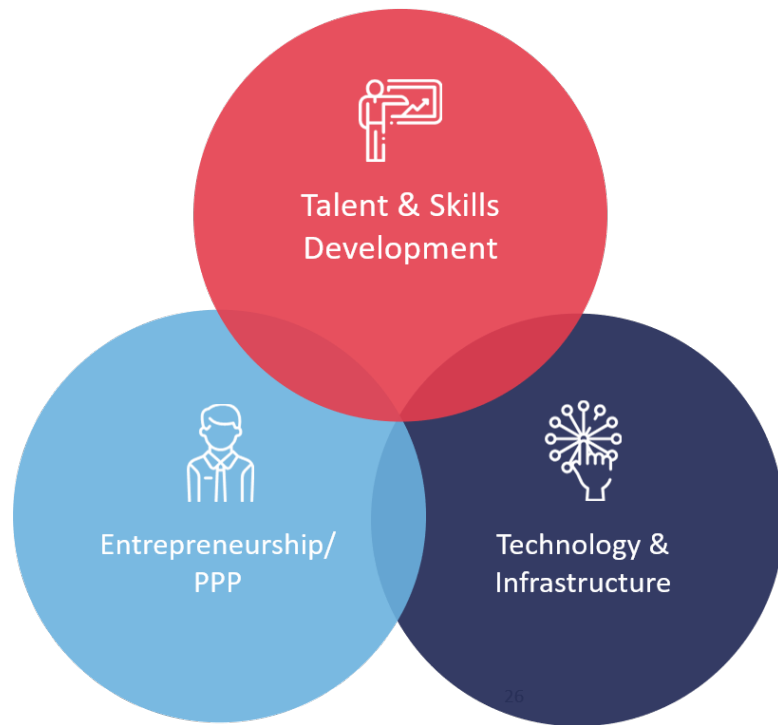
800

GDP Impact in Bil.
NPR

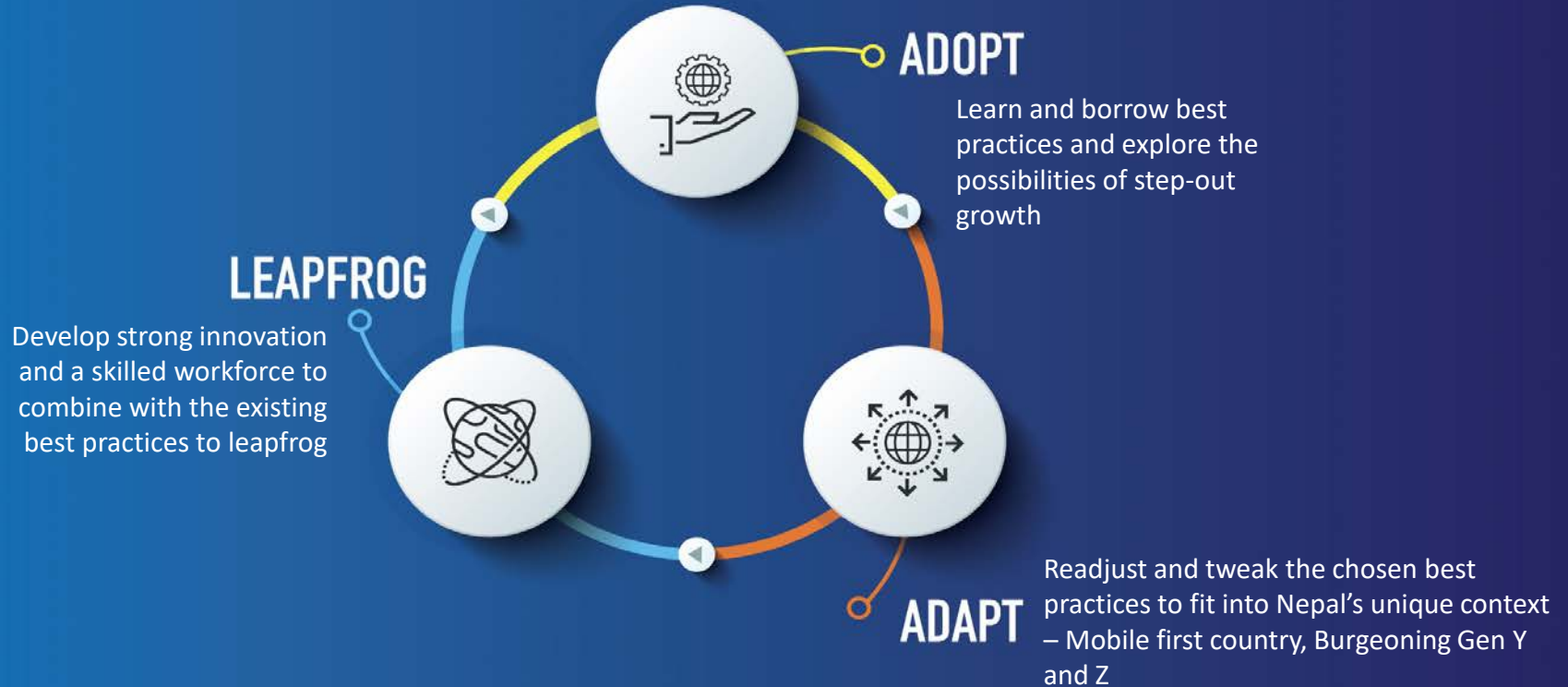


Business Environment Enablers for Digital Nepal Framework

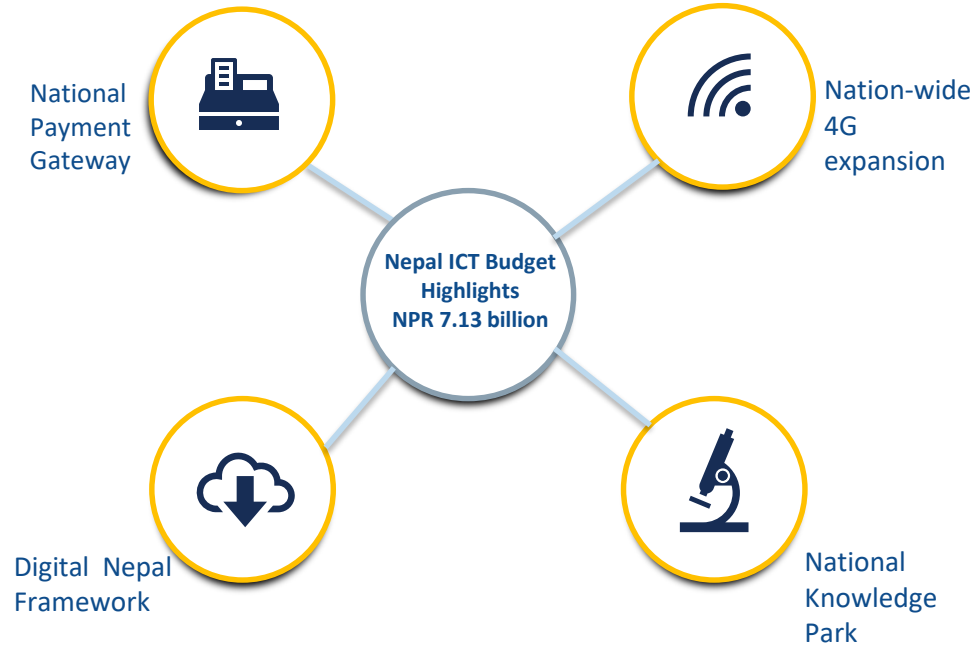
The success of Digital Nepal Framework will require a high degree of emphasis on implementation. The key business environment enablers can be categorized into three distinct segments.



The framework has been designed to provide Nepal with an opportunity to Leapfrog the development curve with impact across multiple sectors – leveraging its burgeoning workforce



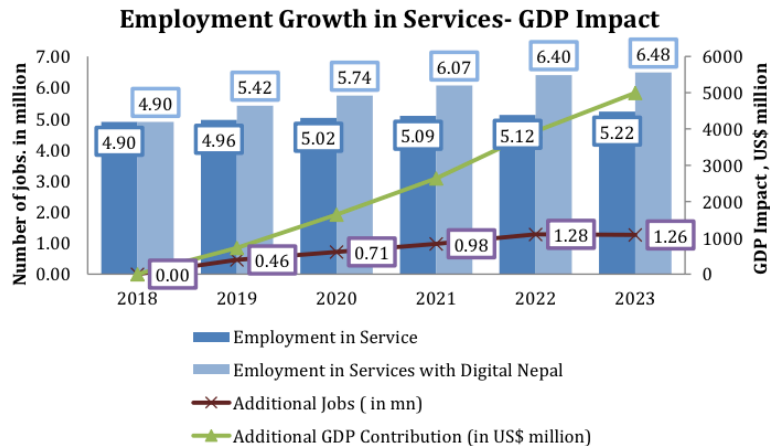
The planned infrastructure for Digital Nepal creates a demand for a different skill future



The Government of Nepal allocated NPR 7.13 billion for Information and Communications Technology in its budget for 2077/78 (2019/2020)

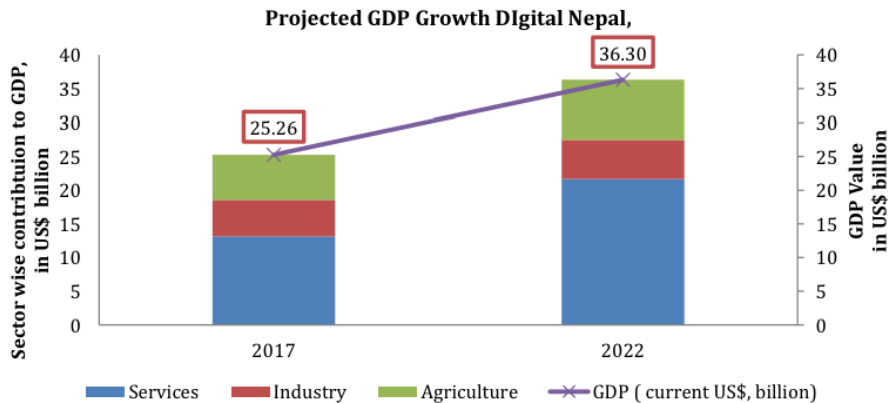


Nepal's service economy can potentially absorb close to 1.3 million additional workforce by 2023



Through implementation of Digital Nepal Framework, Nepal's service economy can potentially absorb close to 1.3 million additional workforce through Direct Job created along with allied and indirect jobs formed, most of which would be diverted from agriculture.

It is estimated the complete impact of Digital Nepal Framework initiatives to the tune of ~US\$8 billion (NPR800 billion) upon complete implementation of programs across different sectors



Digital Integration and Expansion will drive impact across key sectors in Nepal and hence enabling a pro-active recovery for the nation

Opportunity for Innovation: New Normal will be Accelerated



Digital Nepal

Impact:

- GDP Impact of ~US\$ 8 billion
- Absorb 1.3 million additional workforce

Leapfrog development



MSMEs

Impact:

- Creation of jobs
- Poverty reduction
- Increased competition
- Boost exports

Boost economic inclusion



Agriculture

Impact:

- Increase in productivity
- Food Security
- Boost exports
- Contribute to GDP

Enable food security



Industry

Impact:

- Absorb labor force
- Boost Exports, improve Balance of Payments
- Development of new markets

Improve balance of trade

Innovation is
Imperative for the
world to Rebound

Digital has been the
Savior for humanity,
accelerating adoption

Multi Stakeholder
collaboration is
Strategic Imperative

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THANK YOU!

9 October 2020

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