



aliv

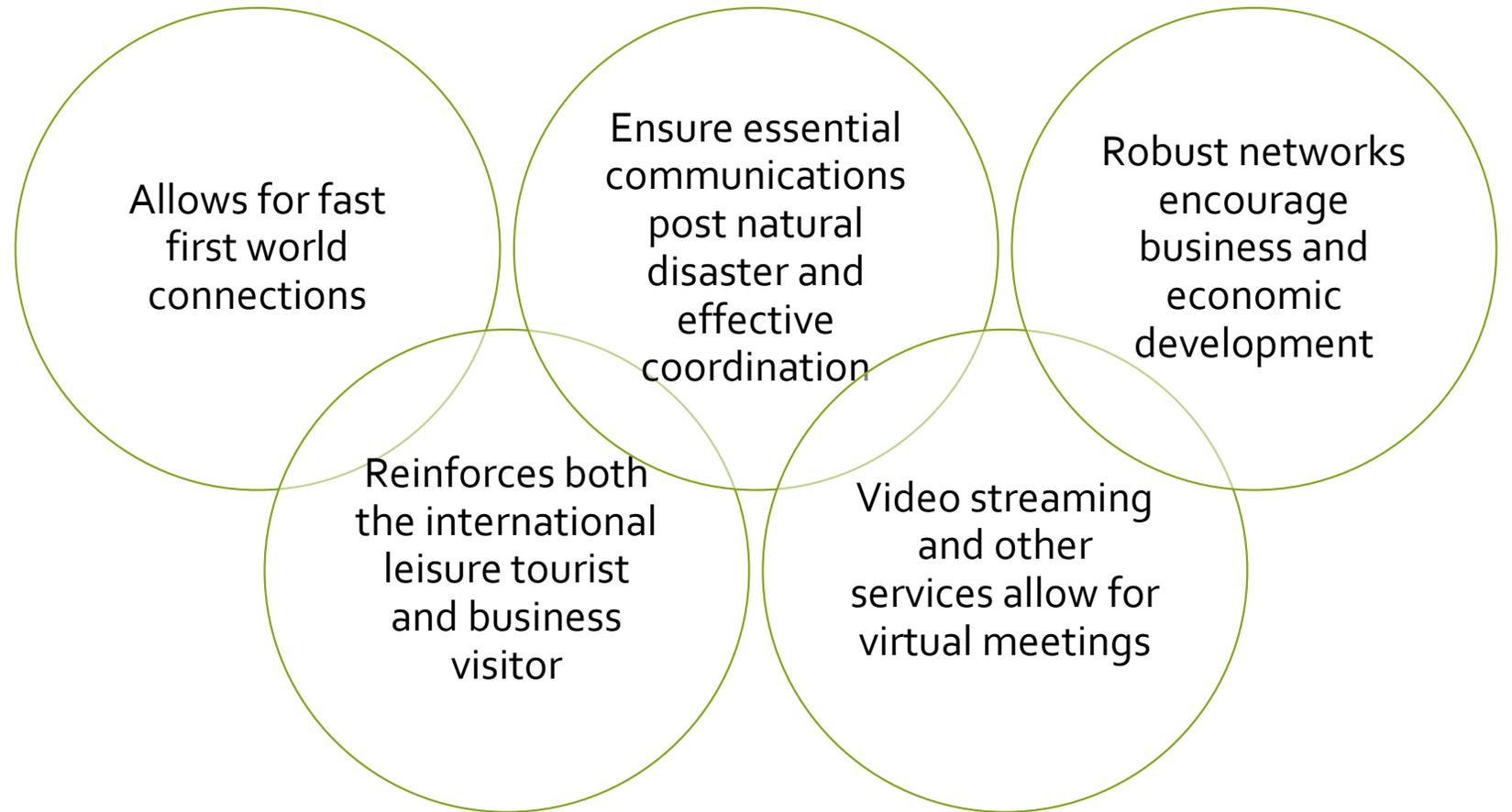
The Modernization of Communications Infrastructures and the Impact on Regional Economic Growth

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an existing modern infrastructure

- Hurricane prone region requires both strong and robust tower and fiber infrasture as well as emergency systems
 - Barbuda, Dominica, Puerto Rico, the British Virgin Islands and Anguilla sustained severe disruptions in communications networks and entire communities were completely disconnected from the Internet, severely hampering recovery and humanitarian relief efforts.
 - The damage and losses in Dominica alone totaled at least 1.3 billion US dollars, more than double the nation's GDP.
- Network resilience, redundancies and business continuity plans are key
- Some features of the Aliv network:
 - The wireless network consists of a 3G HSPA network and 4G LTE network on every cell site
 - The aliv network is configured to be 4G LTE preferred and Aliv uses a brand-new Juniper fiber transmission network, specifically designed for LTE transmission
 - Huawei Technologies , global leader in wireless technologies, network provider
 - The 4G LTE network operates on both Band 4 – 2100 MHz and Band 13 – 700 MHz
 - Aliv cell sites are equipped with brand new towers that are engineered to handle wind speeds of 150 mph
 - Tested at inception with Hurricane Matthew in October 2016
 - Double loop sub-sea fiber
 - VoLTe phone service

how does it impact business?



changes beyond infrastructure

Economic development is impacted by the types of infrastructure present but perhaps more impacted by the way the infrastructure is used

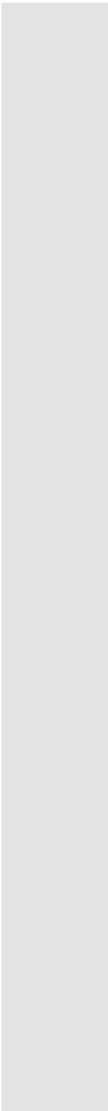
The power of the network is transforming the way we do business and this is having a far greater effect on business growth and regional development

This will determine the businesses present in the next 5-10 years, what people do in those businesses, how they engage with other players in the market, their scalability and get to the very crux of how we define expertise and value

Knowledge based businesses which previously benefited from strong telecommunications networks and infrastructure – the “do business from everywhere” model - are most likely to be effected



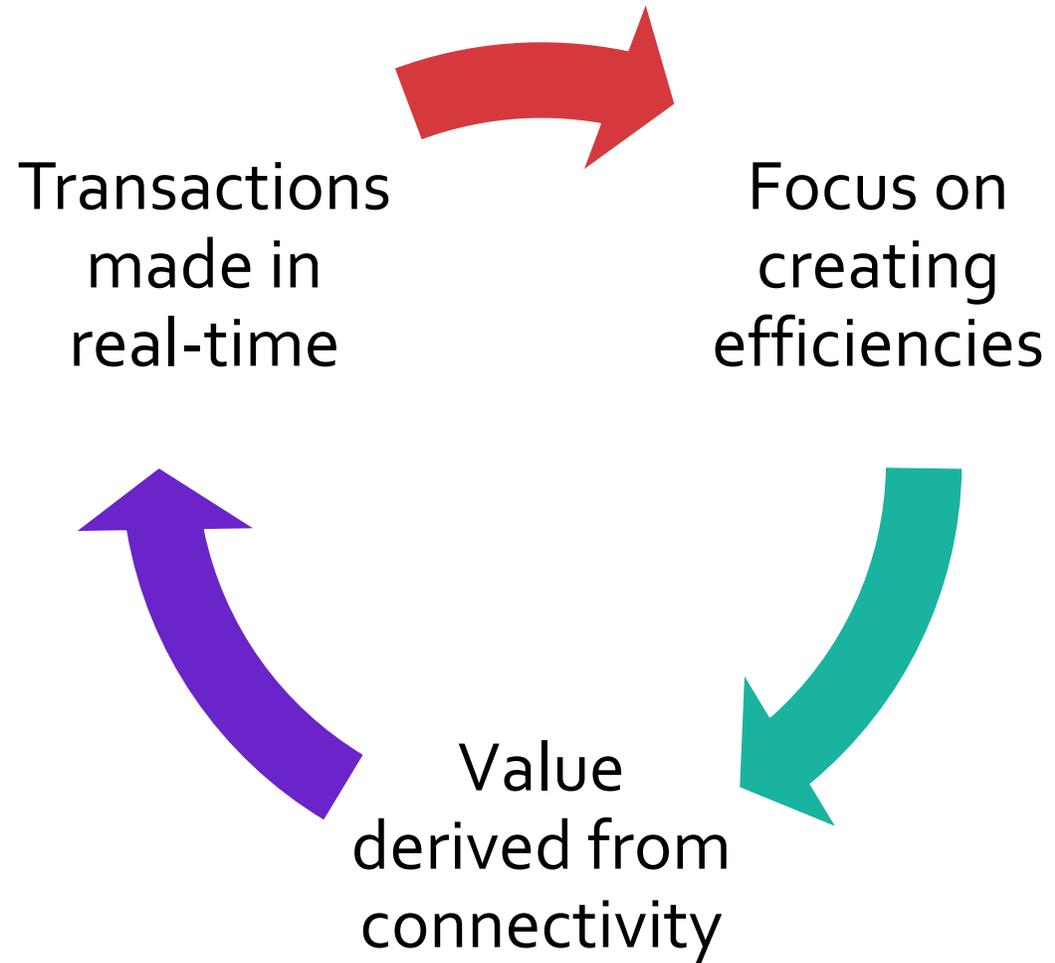
how do we define expertise?

- In 2013, Carl Frey and Michael Osborne of the University of Oxford argued that 47 per cent of American jobs were at risk of automation
 - Wages have been largely flat across the developed world for over 40 years
 - Income inequality is increasing
 - “Expertise” is becoming commoditized
- 

the machines
are coming



disruptors
create new
business
niches and
transform
industries



platforms
models are a
frequent
disruption
vehicle



amazon



Google

telecomms are not immune



- In the past five years revenue growth down from 4.5 percent to 4 percent
- EBITDA margins down from 25 percent to 17 percent
- Cash-flow margins down from 15.6 percent to 8 percent
- Core voice and messaging businesses shrink, due to regulatory pressures and the advent of social media is opening up new communications channels
- In the US, landline and mobile voice now account for less than a third of total access, down from 55 percent in 2010, while data revenue has risen from 25 percent of total revenues in 2010 to 65 percent today
- Media and telecom mergers are defining the market landscape
- Digitization can potentially improve profits by up to 35% for most telecom companies (9% is most likely achieved)



how Aliv is reacting

Comprehensive data analytics platform

Multi-channel Sales (Concierge, Retail)

Continue to improve and digitize the customer service experience

Leverage tremendous data capacity of our network

Problem solving with software (mobile apps) and tools

how can the
accounting
industry
benefit?

Cloud Accounting



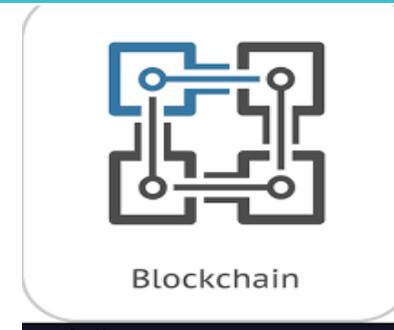
Integrations



Digital Currency



Blockchain



Machine Learning

