Business Models for Accelerate Prototypes (implementation in progress)

Sustainable Business Models

El Salvador

Selling Wi-Fi Hotspot or School as an ISP

*Kenya
Honduras
Sierra Leone*

Selling excess solar energy

Sierra Leone

1 **Community Collaboration**	**2** **Wi-Fi Access for the Community**	**3** **Clean Energy Access for the Community**

Community Collaboration

- Community contributes to the building and/or maintaining of its own network

- Various structures exist, for involving the community and ownership

- Initial funding could come from Gov't, NGO or Telco CSR; OpEx may be covered by key clients (e.g. Gov't buildings or hospitals in the area who pay a fixed monthly fee)

- Community fees depending on ability-to-pay and control over connectivity (varying structures)

Wi-Fi Access for the Community

- School sets up ISP equipment at the school to sell internet to the community

- Options include:
  1. "Pay-as-you-go" **Wi-Fi Hotspot** at school
  2. **Subscriber nodes** in the community

- Improves affordable internet access for community members

- Profit is used to subsidize the school's connectivity. "Recycle" money generated into connecting more schools

Clean Energy Access for the Community

- Selling excess electricity to the community at affordable rates

- Improves reliable, clean energy supply for the community (either a solar panel on the school's roof or on-site)

- Profit is used to subsidize the school's connectivity

- "Recycle" money generated into connecting more school

Business models (2/4)
Sustainable Business Models

Botswana

*Botswana
Brazil*

④ Penalty System	**⑤ Advertising or Free Rating Websites**	**⑥ Data Credits / Incentives (Online Social Programs)**

Penalty System

- Large service providers can trade financial penalties in return for NPV-negative connectivity projects for rural or hard-to-reach areas

- A service agreement can be put in place to ensure that parties provide agreed service levels and necessary maintenance

- A penalty system often takes years between the handing out of a fine and the actual payment

Advertising or Free Rating Websites

- **Wi-Fi hotspot homepage** has advertising or offers free rating of websites (which adheres to local standards /regulations) to generate revenue to offset costs (Examples include, mobile banking, job boards, e-commerce, media/news, remote learning or social media)

- **Regulated advertising at schools**, which adheres to local standards and requirements to generate revenue to offset costs (Some examples include, educational activities or local festivals)

Data Credits / Incentives (Online Social Programs)

- Government utilizes the Wi-Fi from the school to service the neighbouring community and encourages positive behaviours with **data credits (MBs)**

- For example, data credits (MBs) for completing online training programs, utilizing government services, starting a business (entrepreneurs), etc.

Business models (3/4)
Sustainable Business Models

Brazil

Botswana
Kazakhstan

Uzbekistan

7 **Spectrum Auction / Minimum Subsidy**

8 **Anchor Tenants (Government Contract)**

9 **Local Revenue Sharing (Co-invest)**

- School connectivity can be a prerequisite in a 5G auction, where the winner has an obligation to connect schools

- Governments can also send out an RfP and ask for a minimum subsidy needed to connect a number of schools

- Important to do this on a national level as some regions are more attractive

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- Local government **buildings** (e.g., hospitals, schools, police stations,) work together as one big internet contract

- Government guarantees payment for certain capacity for long period of time (e.g., by using USF) and community will pay depending on monthly demand

- Commercial operators will have more attractive economics to deploy a network in otherwise not viable areas

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- Local player (e.g. ISP) builds and maintains network in an area otherwise not economically attractive for larger commercial players

- Coverage as a service, where a large TelCo player allows a local player to add onto their network and then operates the network with the goal of "sharing" in the profits

- Positive business case as large Telco obtains a fee (profit share) and the local player can maintain the network more efficiently and reach more people (lower costs)

Business models (4/4)
Sustainable Business Models

Brazil
Kenya

Botswana

10 Tax Exemptions or Tax Refunds	**11** Universal Service Fund (USF) Support	**12** Infrastructure Sharing

10 – Tax Exemptions or Tax Refunds

- The Government provides tax exemptions or refunds for TelCo revenue from school connectivity

- Reducing taxes makes it more economically attractive to connect hard-to-reach, rural and remote areas

- Need clear oversight to ensure the telco player delivers on their agreements to obtain the tax exemptions

- Could also be reducing license fees

11 – Universal Service Fund (USF) Support

- Utilize a USF for a dedicated school connectivity mandate

- A portion of revenue from all internet providers is pooled in a fund and deployed across the country

- Transparency and clear definitions on how the money is to be spent is imperative for the success of a USF

12 – Infrastructure Sharing

- Through regulation, governments can incentivize service providers to share infrastructure (technology, partners, sourcing, geography or architecture) to reduce the capex and opex costs to extend connectivity to remote areas.

- Infrastructure sharing arrangements can be passive (sharing non-electronic infrastructure) or active (access to the network).

- Regulation is key for co-deployment and co-sharing infrastructure.

- Specific arrangements can be decided for tech, partners, sourcing, geography, architecture

Source: BCG Analysis