Village Data Analytics

From Data to Decisions - Introducing Village Data Analytics (VIDA)

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PROBLEM

860 million people live without electricity.
Investment of > 400 bn is required

BUT, WE ARE WORKING IN THE DARK

Investors, planners and companies need better information

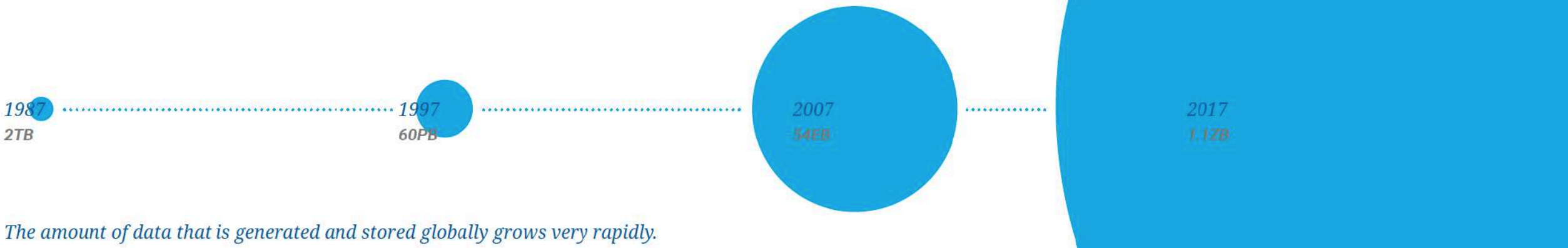
Lack of reliable evidence on rural household and business needs leads to long project development timelines, low operational margins and restricts access to finance.

Village
Data
Analytics

Meanwhile…
we are experiencing a
data & digital revolution

- Data sets (incl. satellite imagery)
- Processing power
- Usage of mobile phones and internet
- AI techniques and algorithms
- Talent pool (global)

Figure 35 – Global internet traffic[207]



The amount of data that is generated and stored globally grows very rapidly.

Village Data Analytics

A recent TFE Energy report looks at the digital transition in energy access in detail

- Digital planning tools
- Digital platforms
- Digital operations
- Digital payments

Download report here:
→ https://www.tfe.energy/project/Data4EnergyAccess/

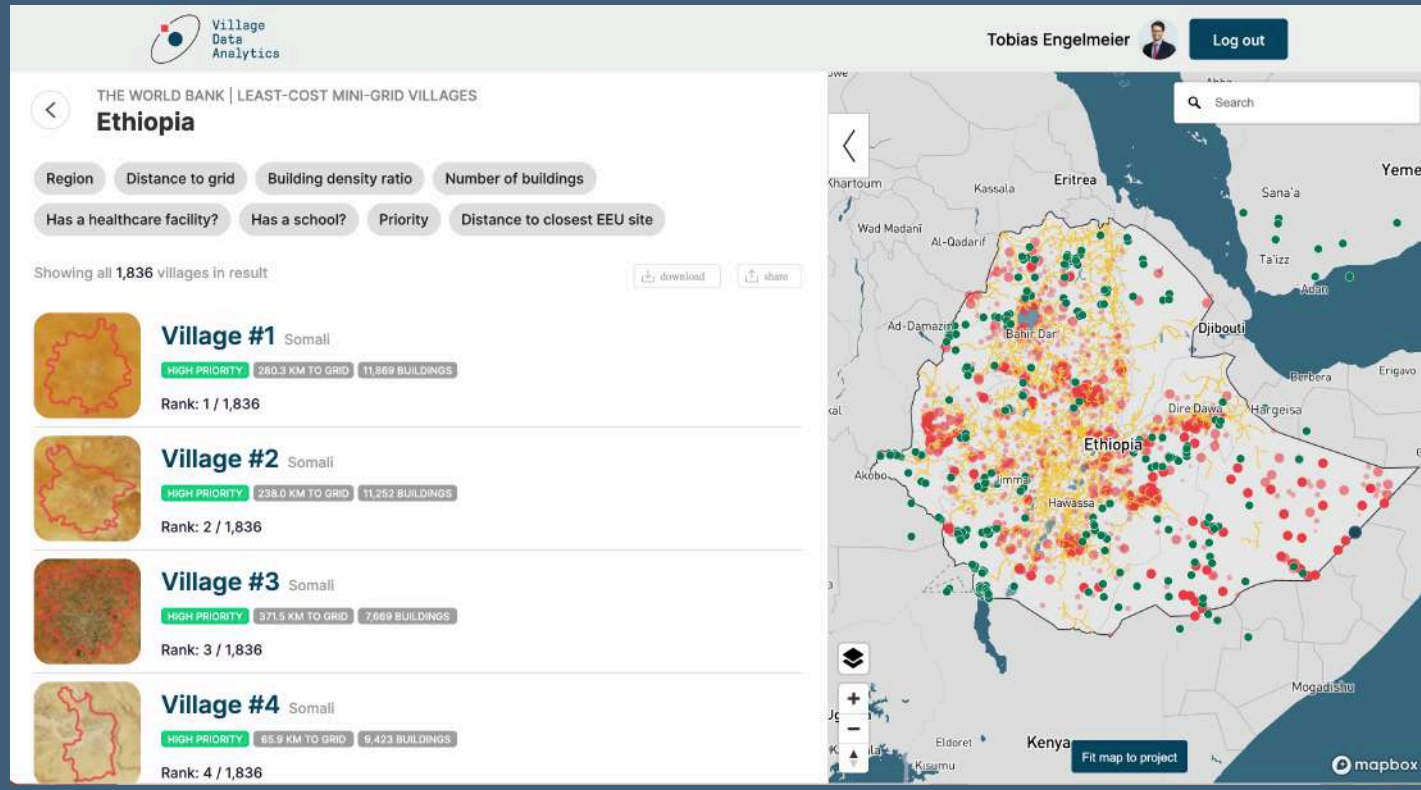
Village Data Analytics

From data to village-level decisions

VIDA is and AI-powered software that can analyze any village in the world and predict best electrification options.

1. Identify villages
2. Extract village level information (e.g. settlement structure, grid access, energy resource, road infrastructure, agriculture, etc.)
3. Use algorithms to predict energy demand and investment viability
4. Results are displayed for decision-making in VIDA's interactive user interface, tailored to each user

VIDA interactive user interface: country view



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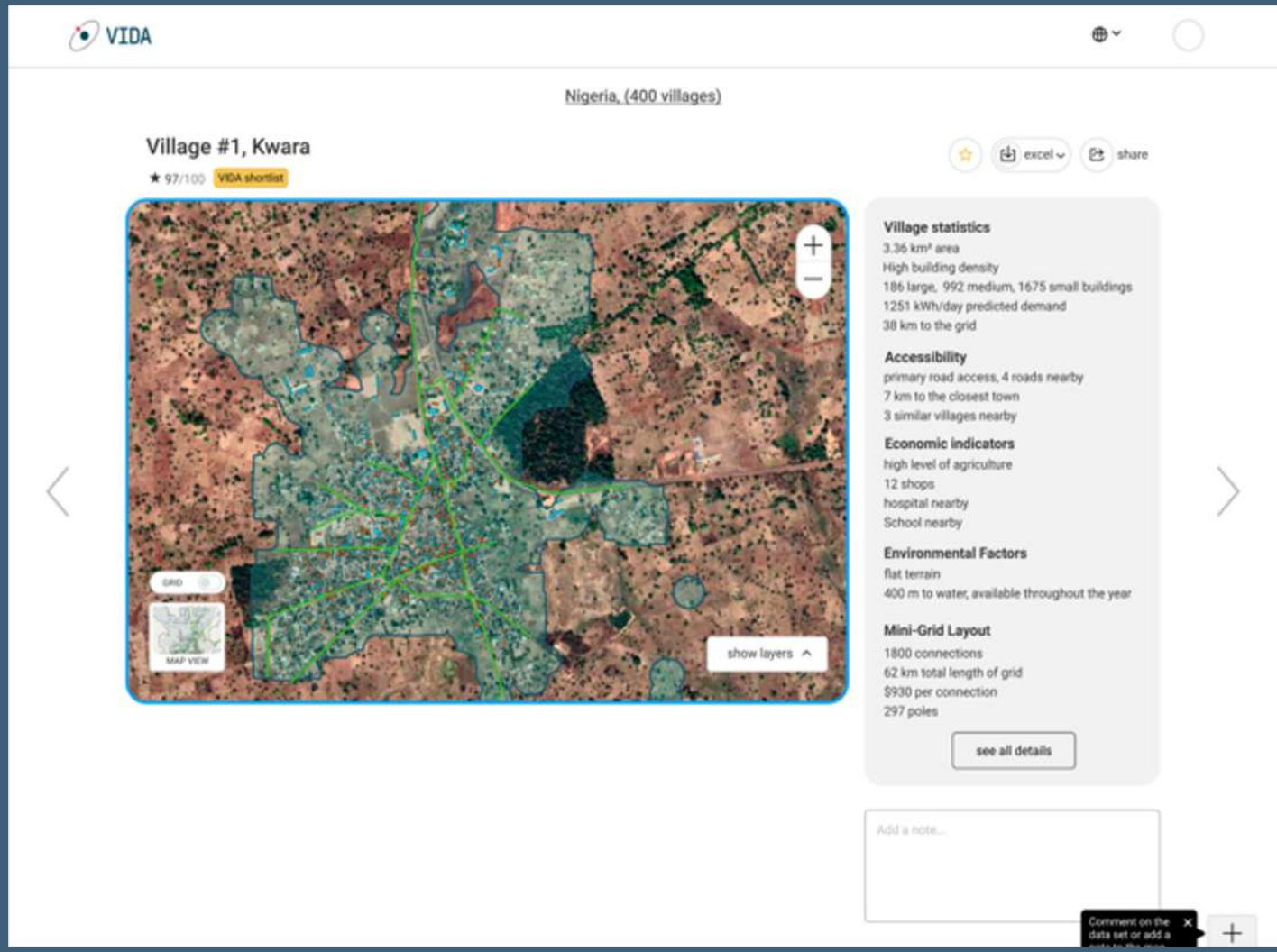
VIDA interactive user interface: village view



Village Data Analytics

Many data sources, no more excel sheets, all your information in one place

VIDA ingests data from several sources such as satellite imagery, on-ground data and third-party data (for example E-GUIDE data)

VIDA‘s algorithm analyzes these data-sets to conduct a detailed assessment to identify demand, distribution cost, predicted revenue and other viability factors.

Use-cases include analyses of a set of villages for our mini-grid customers like Africa GreenTec, BBOXX, PowerGen, PowerCorner, Nuru, etc. Or country-level analyses thousands of villages in e.g. Ethiopia, Kenya, Sierra Leone, Nigeria, or Myanmar for governments and donors.

Automated distribution layout generated by VIDA’s algorithm

THE WORLD BANK IBRD • IDA

AFRICA GREENTEC

POWER AFRICA

PowerGen

Bboxx

nuru

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For more information, including case studies on how VIDA is used, see:

www.villagedata.io