Cow Tribe

VU VRIJE UNIVERSITEIT AMSTERDAM

Mr. Meteo
Providing Climate Information for the Unconnected

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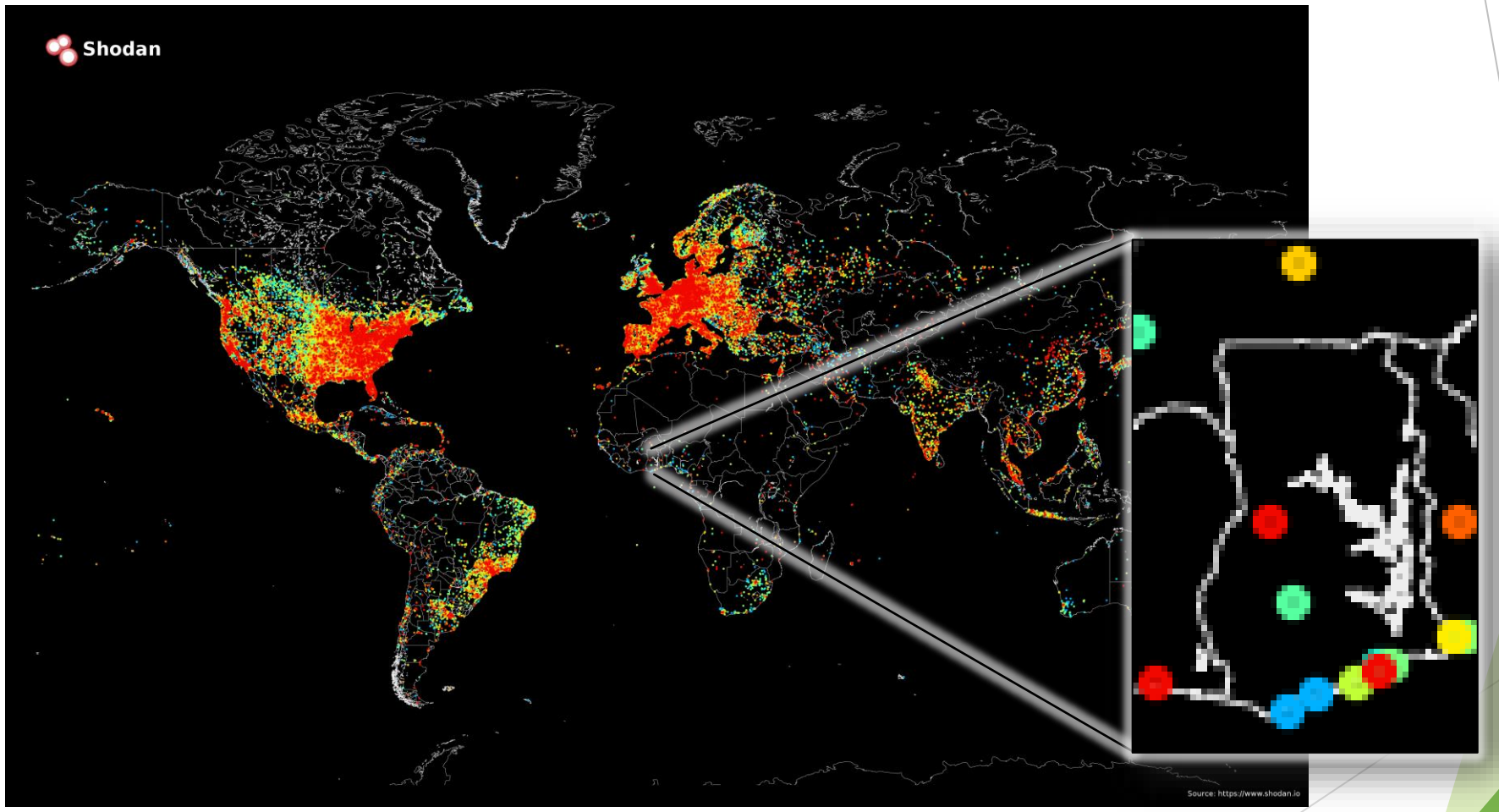
Information is vital for Sustainable Development

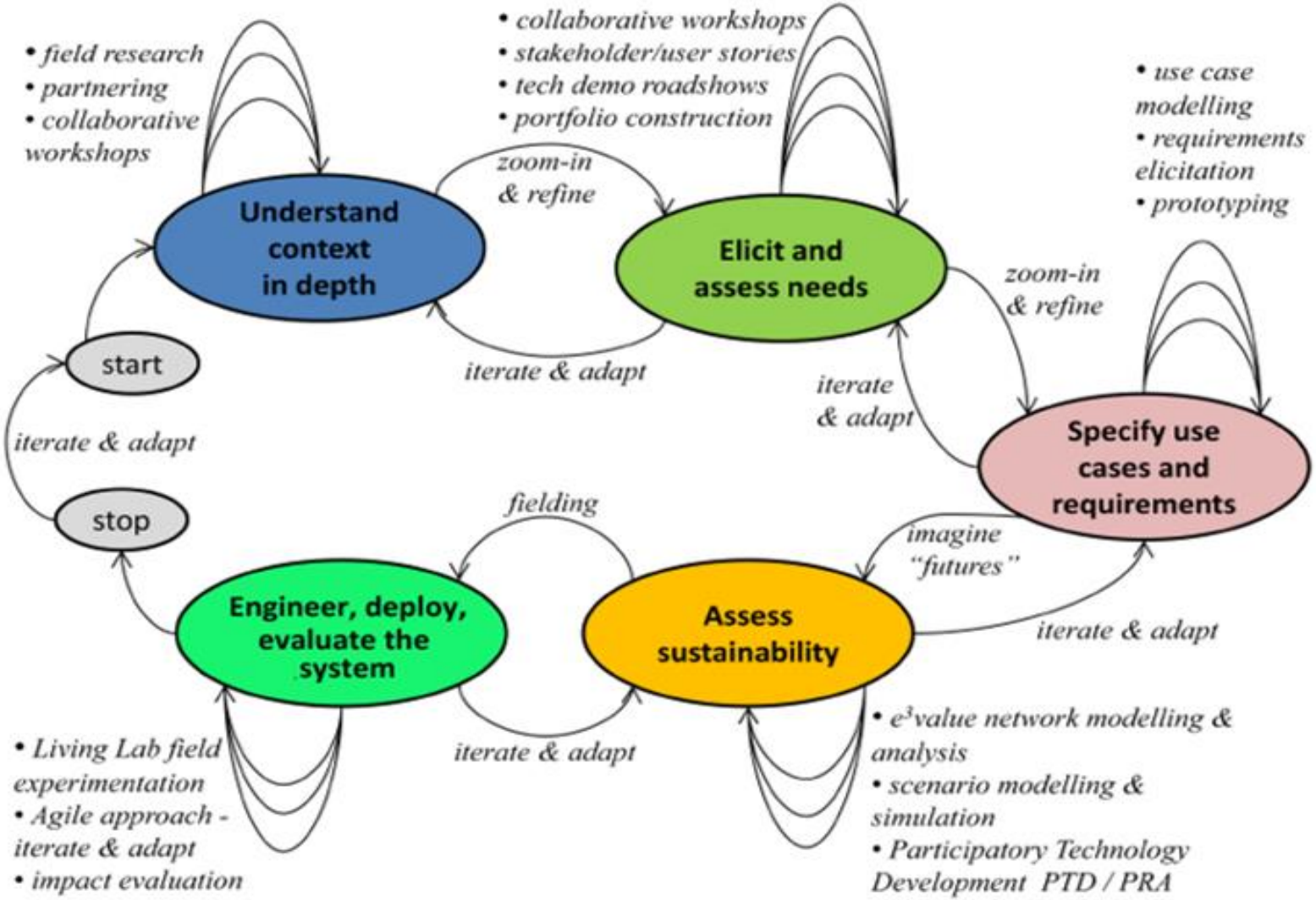
#AllConnectionsMatter



The Reasons

- Lack of Infrastructure
- Affordability
- Literacy
- Relevant Content
- …

Methodology

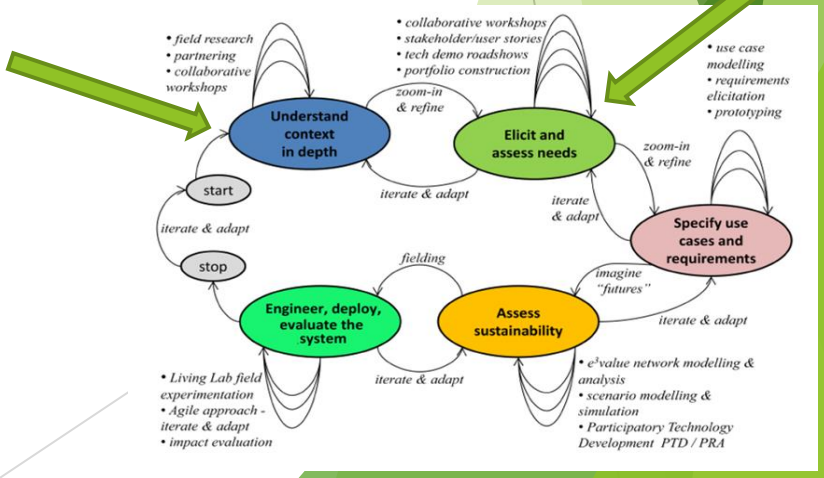


Research Question

- How can ICTs provide rural communities in developing countries with regular access to up-to-date information, from the world wide web, peers or organizations?
  - Considering the level of infrastructure in these rural areas, what ICTs are feasible and what are the implications of the disruption that may result from the introduction of these technologies?
  - How can we technically influence affordability and financial sustainability of the system?
  - What are the methods of determining relevant information for these communities?
  - What measures can be taken to circumvent the issue of illiteracy in the delivery of information?
  - How can these systems be maintained and further developed within the local context?

Context Analysis and Needs Assessment

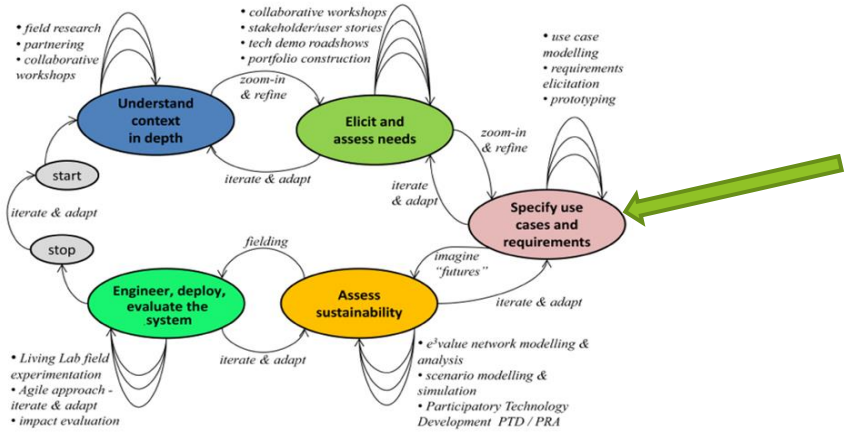
- An Interdisciplinary Approach
  - Contextual information from obtained from a collaborative workshops with experts, discussions with stakeholders, …
- An adapted Living Labs Approach
  - End-user involvement in problem identification and subsequently in every step

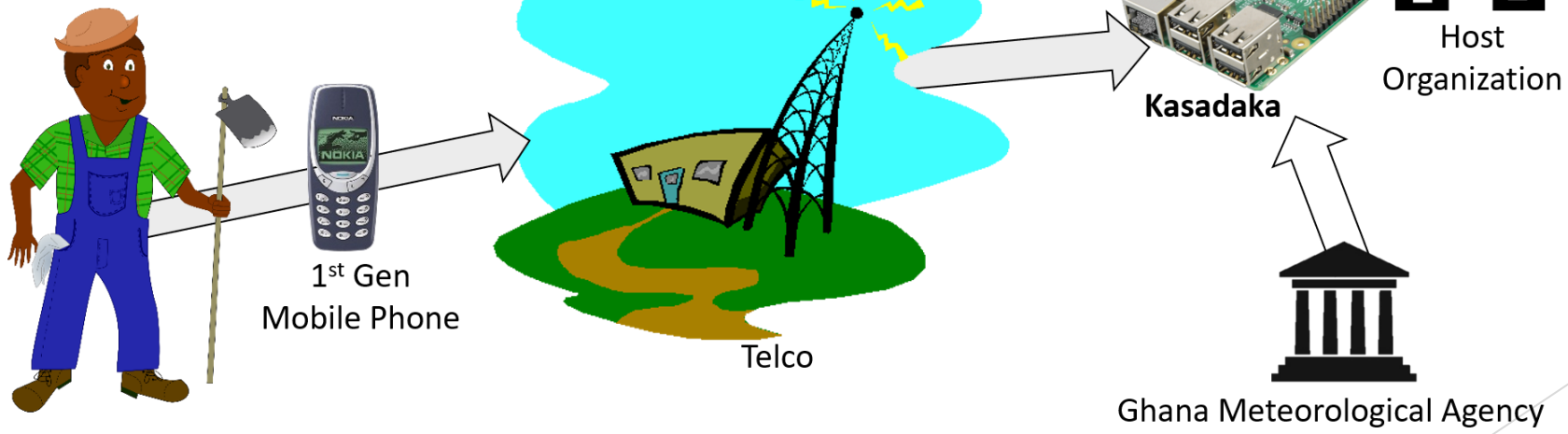


Climate Change

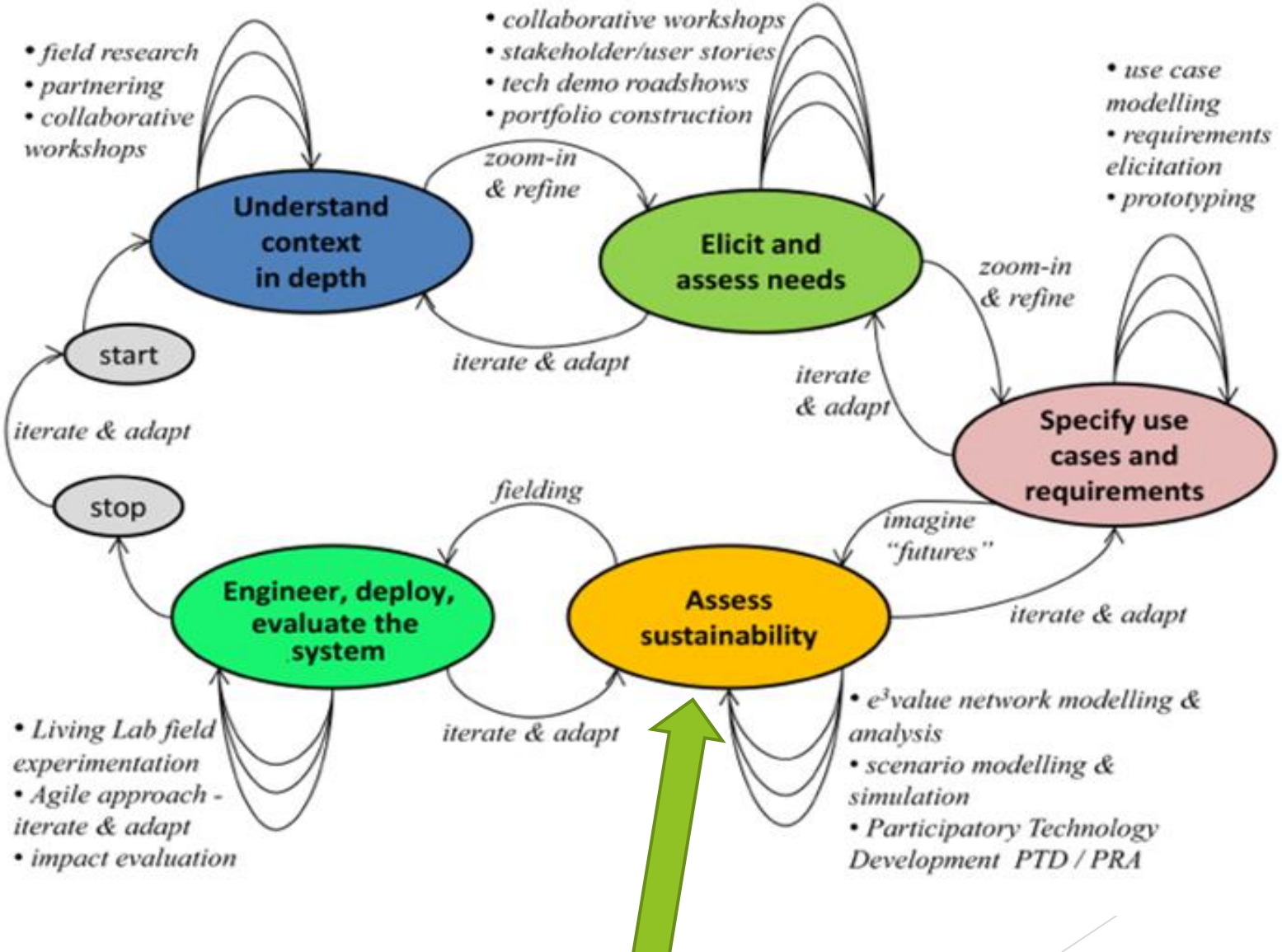
- A recurring concern in the rural areas of Ghana
- Directly linked to several SDGs that pertain to the livelihoods of rural folk
- Relevant to the primary occupation of the target group; farming

Use-Case and Requirement Analysis

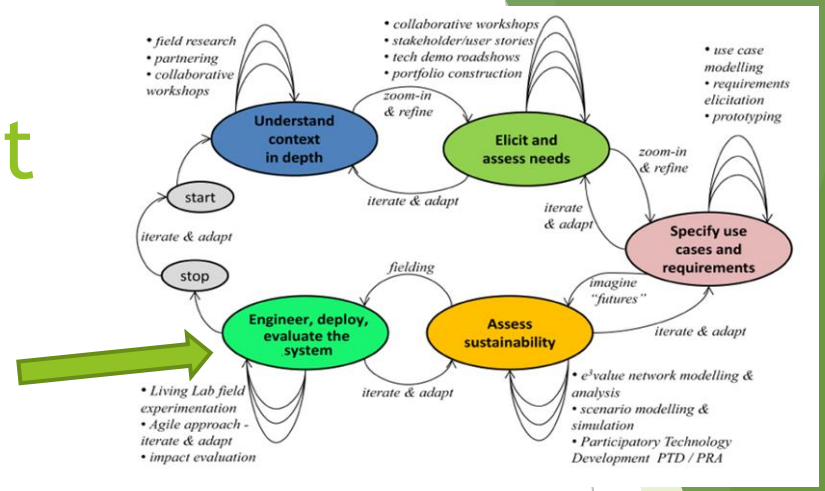




Feasibility and Sustainability Assessment

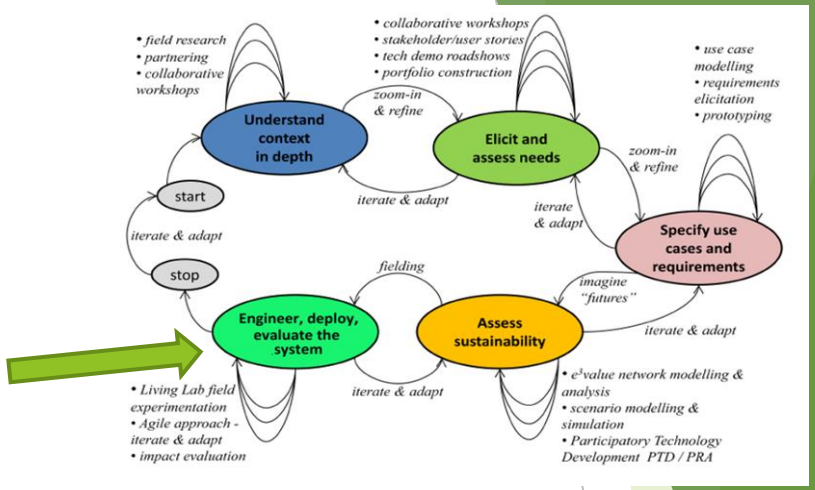


Development, Testing, Deployment



- Kasadaka
  - The Kasadaka ("talking box" in a number of Ghanaian languages), enables the development and hosting of voice-based information services, targeted at low-resource communities

Evaluation

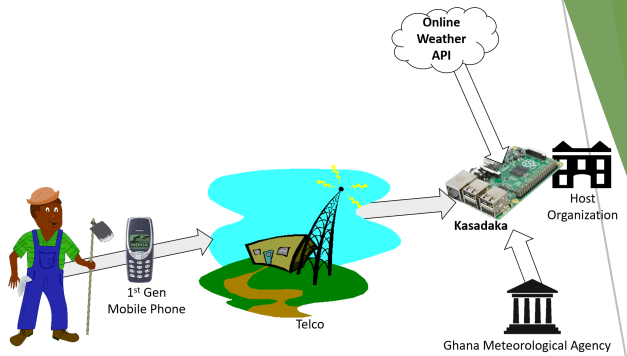


- End-User Perspective
  - Willing to use – 100%
  - Willing to pay – 90%
- Stakeholder Perspective
  - Inclined to scale-up; location, language, information type

Research Question - Recap

- How can ICTs provide rural communities in developing countries with regular access to up-to-date information, from the world wide web, peers or organizations?
  - Considering the level of infrastructure in these rural areas, what ICTs are feasible and what are the implications of the disruption that may result from the introduction of these technologies?
  - How can we technically influence affordability and financial sustainability of the system?
  - What are the methods of determining relevant information for these communities?
  - What measures can be taken to circumvent the issue of illiteracy in the delivery of information?
  - How can these systems be maintained and further developed within the local context?

Conclusion



- Infrastructure
  - What is available; Mobile, Radio
- Affordability
  - Low-Cost Hardware, Open-Source Software, Financial Sustainability Improved by technical design
- Relevant Information
  - Adoption of these systems by the end-users can rely heavily on this; an iterative, adaptive and collaborative field research methodology with early involvement of end-users provides a great determinant of what information may be deemed relevant to rural communities
- Literacy
  - The ready adoption of mobile telephony and the pre-existing oral-based communication culture informed the use of a voice-based system. The added value of utilizing local languages merged to circumvent the issue to illiteracy
- Future
  - Dittoh F, et al,. *2020. Information Access for Low-Resource Environments. In Proceedings of the 3rd ACM SIGCAS Conference on Computing and Sustainable Societies (COMPASS '20). Association for Computing Machinery, New York, NY, USA, 325–326. DOI:https://doi.org/10.1145/3378393.3402506*