

# M C

### **Offline content sharing** for rural Africa



### POCKET PORTAL BY MICT

No affordable access to opportunities for young people, farmers and health workers who need learning material and vital information

- + 70% of population live in rural areas mostly illiterate or low literate.
- Education & training in person is expensive with travel expenses + and loss of salary.
- Meaningful Internet access via 3G/4G phone networks, + when available, is too expensive.



Data over the mobile networks is expensive, so offline data is booming but sharing is not easy

- Downloading with mobile networks is not affordable: A doctor + earns 500 USD monthly, a teacher 250 USD, a farmer 300 USD. Just 1 hour of video streaming is 10 USD.
- People gather together to listen to music or watch videos + pre-loaded on a device.
- New cheap phones cost just < 40 USD, 2nd hand phones + < 10 USD.



## A platform for free, meaningful content

- Pocket Portal is a bridge technology between today and + when meaningful online access & usage is widely available (10+ years from now).
- The little rugged device host a platform for information + and education with simple communication tools for people with a smartphone.
- User can easily stream or download hundreds of hours of + educational videos, audio programs and messages on their smartphone or a tablet at no cost via an offline WiFi connection.







## Like the online web, but offline & local with curated, educational content

- The user experience is intuitive via a web-browser on their smart-+ phone and the best thing is: every download is free of charge.
- The device can offer meaningful access to curated existing + educational content or originally produced programs.
- The low power hardware can be hosted by a school, a hospital + or a shop and can run on solar power.
- New content can be uploaded to the device by WiFi or USB + (optional: 3G or Internet where available).





### Access to content and sharing

- Users can access the device within 300m of the Pocket Portal (longer range options available).
- The content can be downloaded, saved then consumed anywhere, + back at home or in the field.
- Pocket Portals can be connected together to cover even larger + areas (cities, refugee camps, etc) using mesh repeaters.
- Users can (optionally) upload their own content from their phone + and share to others via Pocket Portal.
- Content can then be further shared from phone to phone via blue-+ tooth or WiFi Direct (peer-to-peer network) with tools provided.







You have already great digital content and you want to reach audiences with access to a smartphone (and cannot afford data).

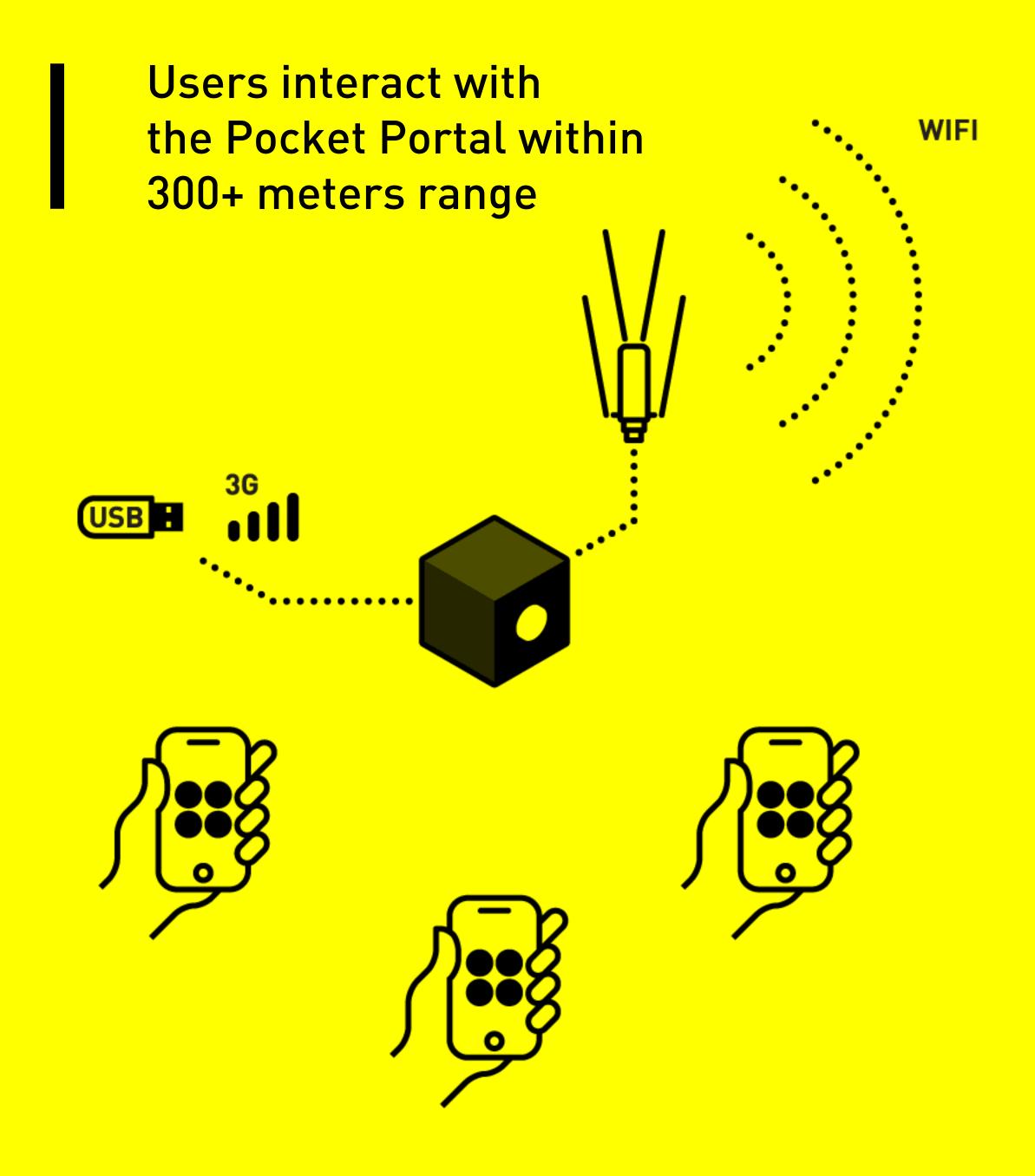
 $\rightarrow$  You can use the Pocket **Portal device to offer** you content.

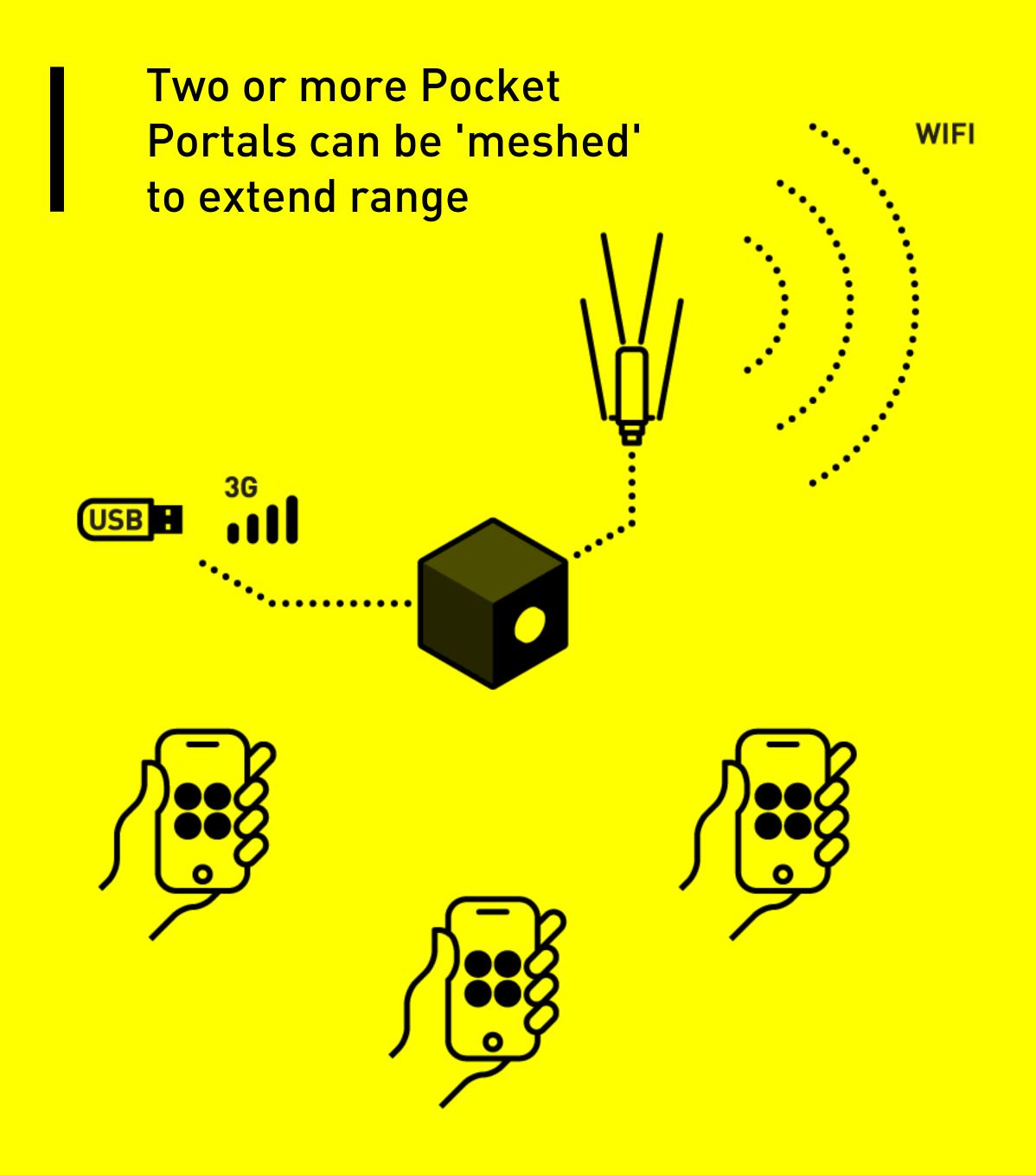


You have great ideas but no content.

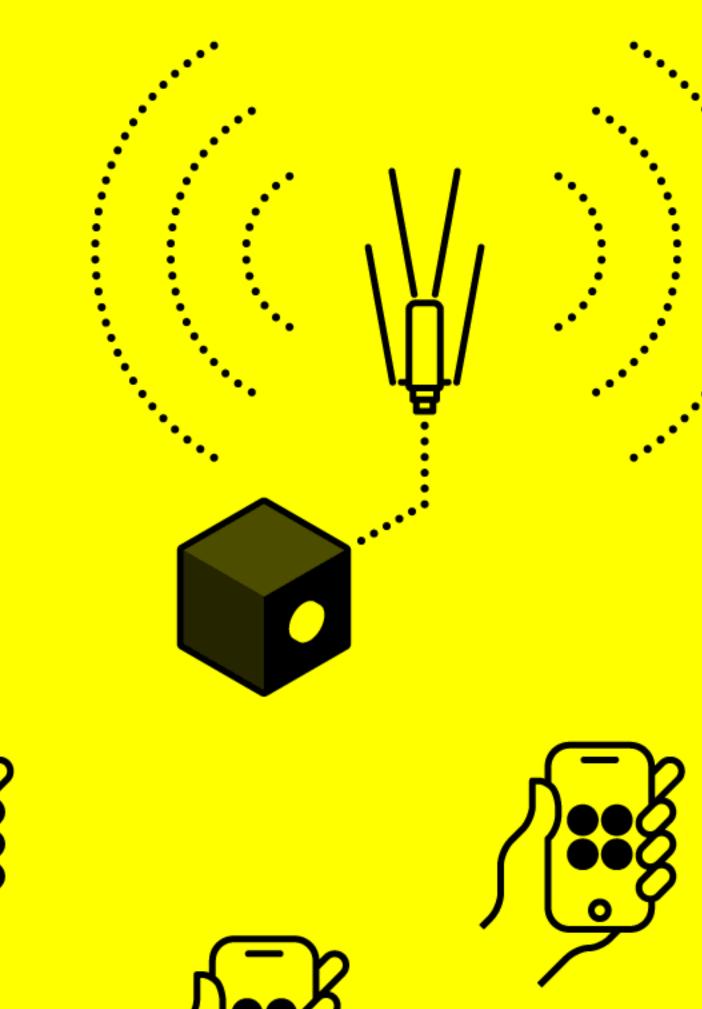
 $\rightarrow$  We can produce your content and run it on a Pocket Portal device (and on the internet as well).







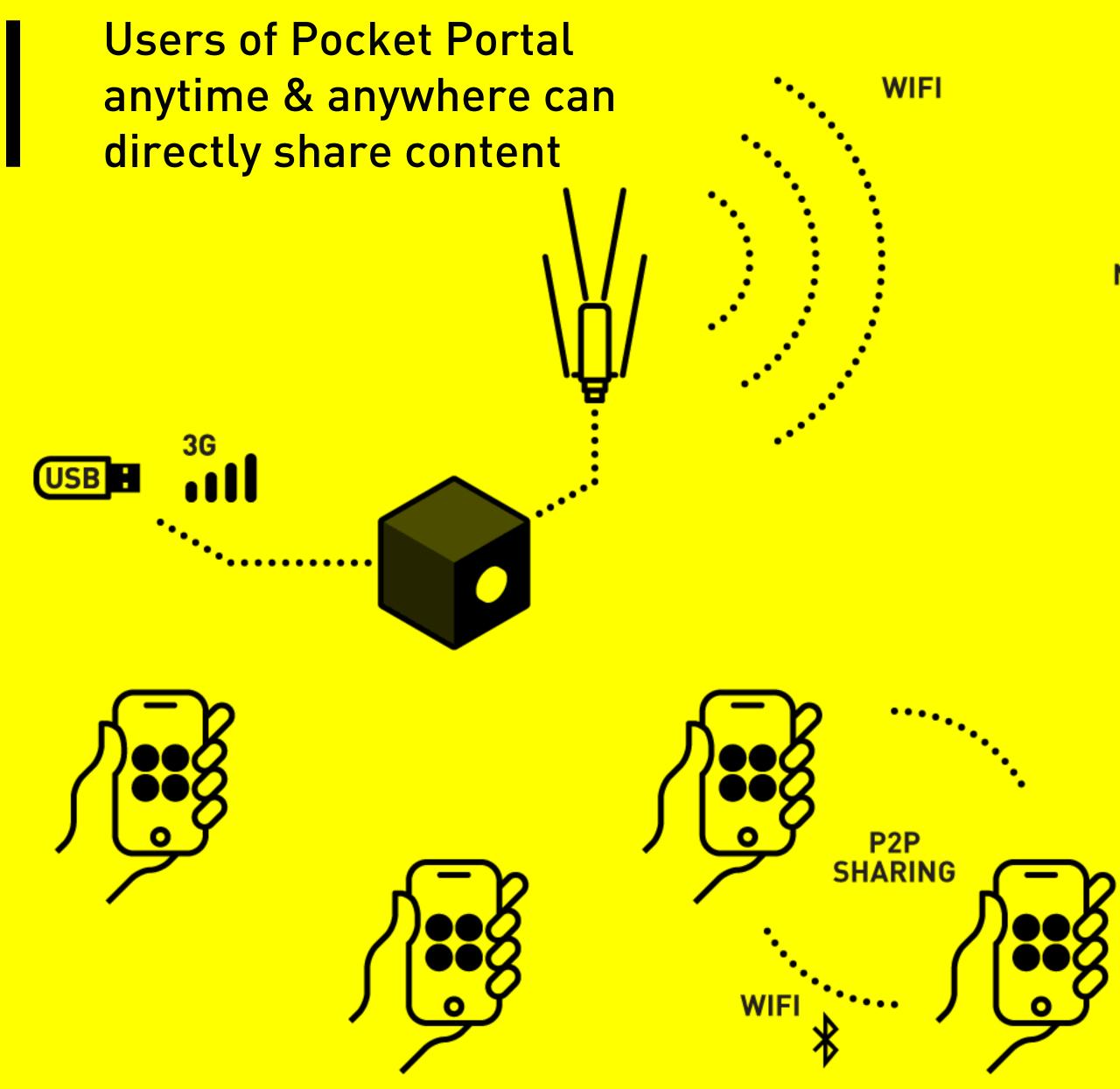




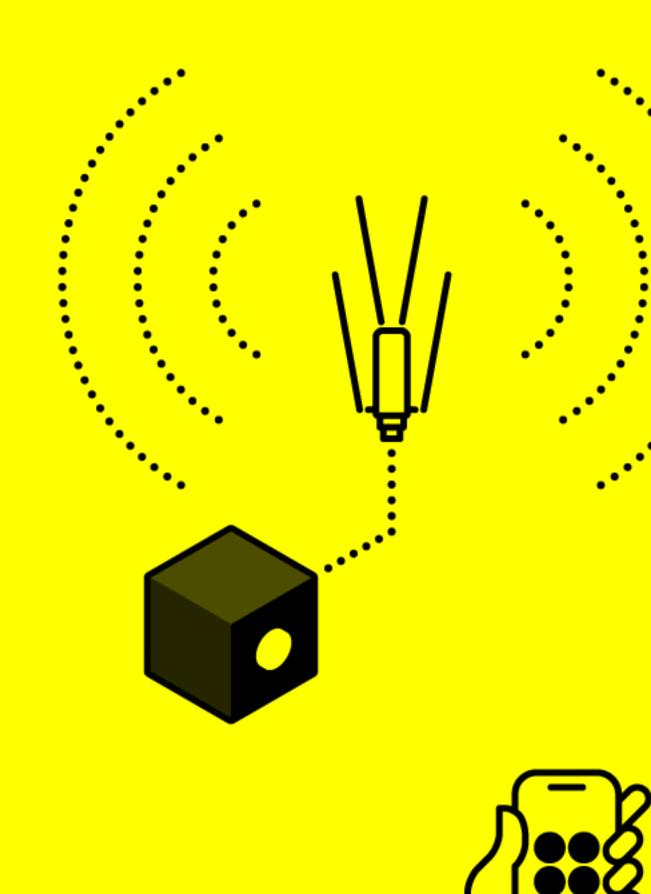
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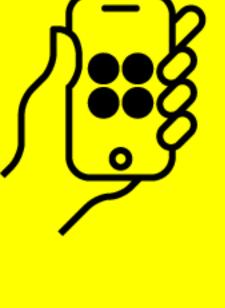
















# Farmers can access and share education material





# Medical Workers can study films and images to improve medical care





Schools can offer a wide range of multimedia learning materials for free



### Where are we right now ...

- The Pocket Portal "Air-et-terre" deployed in several locations in Burkina Faso with hundreds of on-demand radio programs and videos on agricultural issues.
- Monitoring and Evaluation of usage planned 2 in Q1 2022.
- Staged deployment of further units in Burkina 3 Faso is planned for 2022.



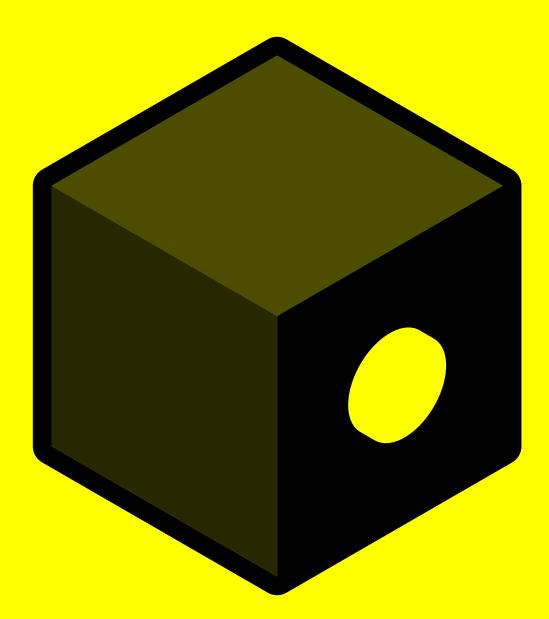






### **Pocket Portal Basic features**

- Rugged, low-power and easy to install device.
- Scalable access network with mesh technology. +
- Storage available for 200+ hours of video & audio. +
- Default pre-loaded content can be easily + customised & extended.

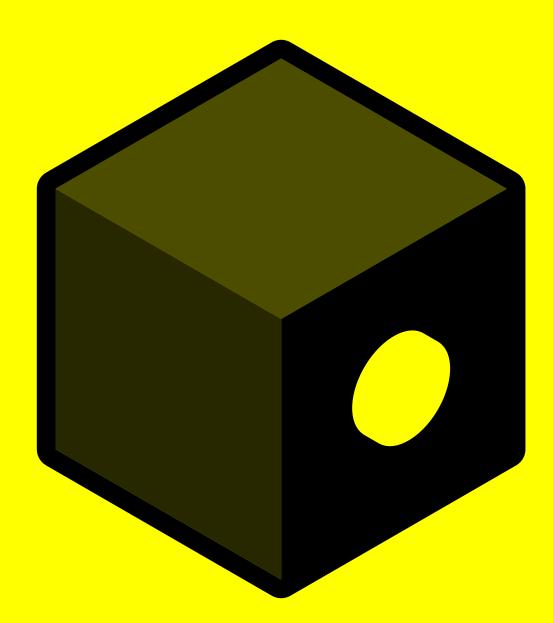






## **Pocket Portal Optional features**

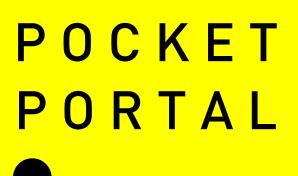
- Optional local area FM radio or TV broadcast transmission.
- Optional satellite receiver for further content. +
- Optional solar power systems for added reliability + (12V).
- Optional remote management access via 3G + or SMS (if network available).





## Multilingual design for illiterate & low tech literacy in rural areas

- MiCT has many years experience in co-design, development & production in:
- + platforms supporting multiple languages & dialects.
- + accessibility for low-literacy including audio prompts & iconic platform navigation.
- + interactivity offering uploading & streaming.
- + usage analysis of platform use for planning and management.

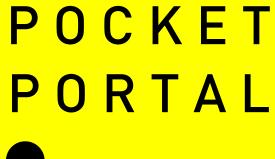




### Costs

- Each device costs ~600 Euro including default example content.
- Design and programming costs of an offline 2 website together with content production (eg. video & audio) (>~10.000 Euro).
- Optional costs for FM, TV or solar power systems 3 are site dependent (300+ Euro).







### **Technical specifications**

- 2.4GHz & 5GHz WiFi supported.
- WiFi secure access with password or open access without password (configurable).
- WiFi access range of up to 300m from each node (longer options) + available).
- Offers live, on-site content streaming. +
- Offers on-site downloading to device for later off-site viewing + & sharing.
- WiFi Mesh networking allows for expansion of local offline access. +
- Multilingual audio prompting available for low literacy target audience.





# Thank you



