Hackathons for Humanitarian Development & Trade Facilitation

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Hacka... *What?*

A 1-3 days, sprint-like event where people come together to **solve challenges**.

Participants typically form groups of about 3 to 7 individuals, mixing **entrepreneurs, innovators, techies etc.** who have never looked at that challenge together.

It’s an intense collective intelligence & ideation session to create concrete solutions through a **creative approach**.
Process

Phase I
- Challenge framing
- Team formation
- 2.5 days & nights Hackathon

Phase II
- Team & process re-organization

Prototype #1 (March)

Phase III
- R&D field-test ready prototype
- Further R&D

Prototype #2 (July)

2017 January
- Call for applications
- Team briefing

2.5 days & nights Hackathon

2017 January
1. Invite Society to our comfort zone
2. Explain our needs and solutions
3. Connect it to benefits of society
1. Leave our comfort zone to other domains
2. Bring our methods to societies' needs
3. Connect it to our world without the need to explain it

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Co-creation turns Diversity & Inclusion from a moral obligation into a fundamental necessity.

**Audience:**
Supporters ⇔ Challengers

**Domain:**
Physic’s ⇔ Stakeholder’s

**Process:**
Understanding ⇔ Experiencing
Keeping semiconductor detector dry

&

Allowing ICRC Forensic teams to longer visually identify dead bodies

have very similar needs
Backpack for Demining Dogs to make their survey 3 to 10 times faster
:: challenges ::

>16 events
>50 challenges
>1000 participants

D. Dobos :: THE Port :: Using HEP Expertise for Social & Humanitarian Impact
‘Landau’-like age distribution (peak ~30y)

~40-55% female participants
~1/3 human aid
~1/3 technology
~1/3 other backgrounds
We demonstrate the value of fundamental science to society.
A Hackathon allows people from different sectors and disciplines to meet and work together on a common challenge.
Benefits of this Approach

- Multi-stakeholder platform
- Cross-sectoral collaboration
- Speed and intensity
- Falling forward
- Outcome is a tangible product
Pacific Exporters

- 75% of exporters employ less than 20 people:
  - 32% 1 – 4 people
  - 43% 5 – 19 people
- Over 75% generate less than 1 million AUD$ (760,000 US$) per annum:
  - 36% - less than 100,000 AUD$ (76,000 US$)
Pacific Exporters

- Produce / export relatively small volumes
- Inputs / raw materials from multiple “small holder producers”
- First link to market
- Small domestic markets - limited capacity to absorb or stimulate increased production / business growth
- Export necessary for growth and commercial sustainability
The Challenge

Pacific Island producers and exporters and international buyers need a way to connect. This will need to be a comprehensive solution that addresses the full spectrum of necessary actions from sales and ordering to registration and aggregation of supply, consolidation and/or logistics and freight and communication.

Pacific Island enterprises, producers and exporters are predominantly privately owned, individualistic Small to Medium Enterprises (SMEs). They face ongoing challenges with creating and communicating commercially attractive sales offerings (right product, competitive price, sufficient volumes at the right quantity, ease of doing business etc) to international buyers including well established, large volume Global Value Chains.

From the international buyer’s perspective, while they may like the Pacific product, they often find purchasing from the region takes too much time and effort, is comparatively expensive and becomes “just too hard”. Usually, no single enterprise can fulfil the volume required to make a sale commercially viable. Further, vast distances, sporadic communication, complex logistics, and the lack of commercial coordination and mutually beneficial cooperation mechanisms such as supply / marketing groups etc. can impede potential interest.

Without an innovative solution that transcends the full range of challenges and impediments, the full socio-economic benefits of trade will continue to elude Pacific Island nations.
Crazy Ideas
From Farm to Shop
From Farm to Shop

Difficult path to reach global markets

Mismatch between individual supply capacities and buyer expectations
One-Stop-Shop

Empower small producers to access trade opportunities
Design Principles

- Simple to Use
- Highly Accessible
- Easy to implement
- Scales down as well as up
- Returns value for collected data
Market Segments

New businesses
Enabling and empowering new businesses and trade access

Existing businesses
Ease of doing business

International actors
Visibility on trade flows in the region

Lorena
Mobile phone
SMS Relay

Tina
Smartphone and tablet application

Joseph
PC

Cloud platform
Partner services
Modular Trading Platform

Modular system
Optional elements
Connecting existing ecosystem

Buying / Selling of products
Stock management
Trading platform
Data analysis and statistics generation
Logistic services
Packaging
Certification
Market information
Business and custom documentation generation
We break complex trade & logistic chains into ‘Minimal Viable Information’ two party transactions

Move Complexity to Technology

We understand natural human communication and connect people with matching intents

Simplify Connection & Communication

We empower individuals to risk-freely trade goods – incl. corresponding logistic and financial services

Enable Trustful Trade with Peers
SMS-Based Trade

Empower low bandwidth to use high tech trade systems

Watch a demo video on YouTube!
Existing Businesses

Inventory & Stock Management
Batch Tracking
Quality & Compliance Recording
Public Profile and Presence
Behind the Scenes

- Cloud platform

Sellers:
- Anna
- Lorena
- John

Buyers:
- Tina
- Felix

Transporters:
- Laura
- Peter
Understand the Big Picture

Product Supply & Demand by Region

Product Cost Breakdown by Region

Transport Demand Forecast

Fiji Coconut Oil Supply by Province

Fiji Coconut Oil Cost Distribution by Region

Open access data
Technical Feasability

- **Natural Language Processing**: Basic Mobile Network Coverage – Intuitive Usage
- **Artificial Intelligence**: Iteratively learning & self improving system
- **Blockchain Transactions**: Transparent & reliable transaction documentation
- **Cloud Hosted**: Easy implementation & reliable infrastructure
Impact

Integrate existing players into a single ecosystem

Creation of local jobs

Electronic trade facilitation

Route and capacity transparency

Lower cost of new transport services
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