Wifi

Network: HCR

Password:welcome1854

LOGISTICS
CLUSTER

29 November

09:00-10:30	Services and Service Providers
10:30-11:00	*Coffee*
11.00-12.10	'Trends in Logistics and Supply Chain Technology'
12:10-12:30	WFP IRM Update
12:30-13.30	*Lunch Break*
13.30-15.30	'Trends in Logistics and Supply Chain Technology'
15.30-16.00	*Coffee Break*
16.00-17.30	Market Place

SERVICES & SERVICE PROVIDERS
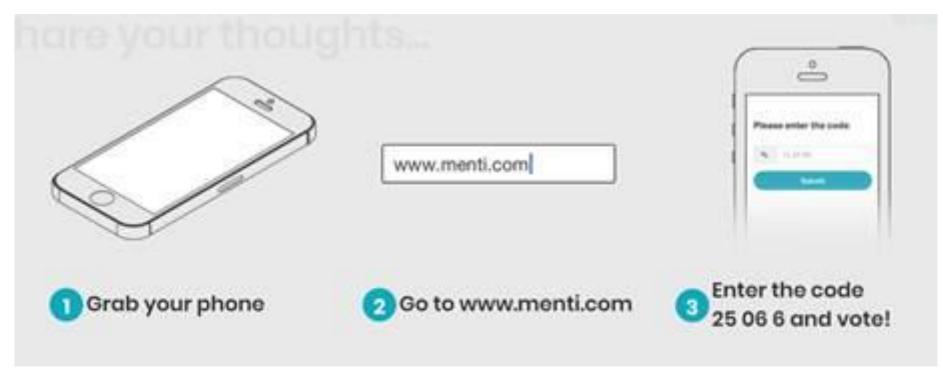
Services and Service Provision

- **Intro with open platform**

- **Panel discussion with service providers**

- **Split discussion**

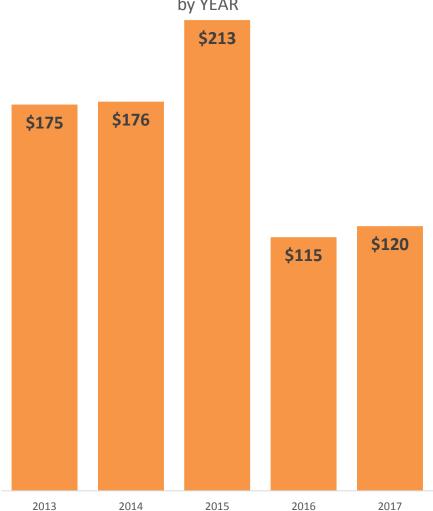- **Plenary discussion**

Services and Service Provision

Share your thoughts

MENTI.COM -------   25 06 6

Logistics Projects
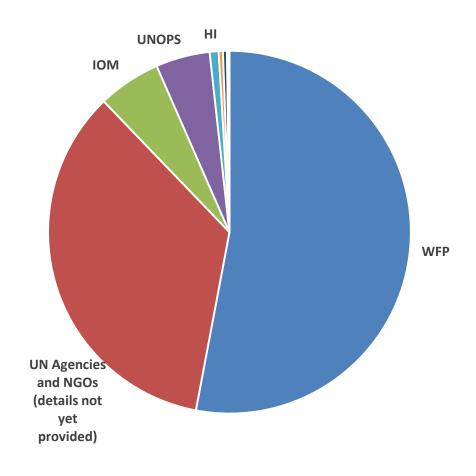
COMMON APPEALS (CAP, FLASH, HRP) by YEAR
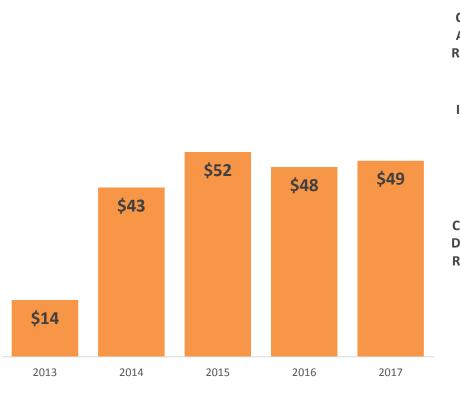
COMMON APPEALS (CAP FLASH, HRP) by ORG.

Logistics Projects
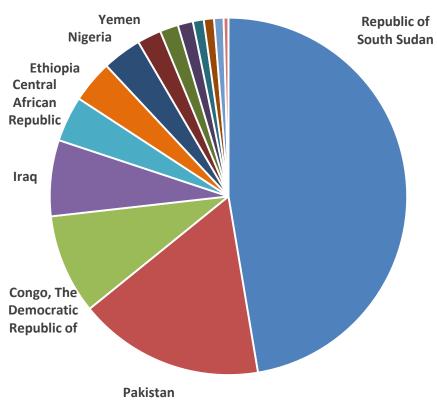
CLUSTER/SECTOR PROJECTS (WFP SOs)
by YEAR
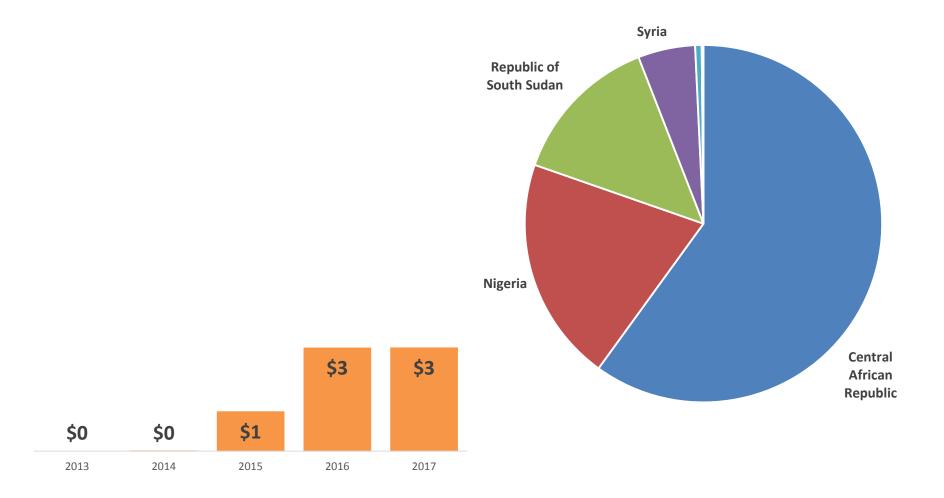
CLUSTER/SECTOR PROJECTS(WFP SOs)
by COUNTRY

Logistics Projects
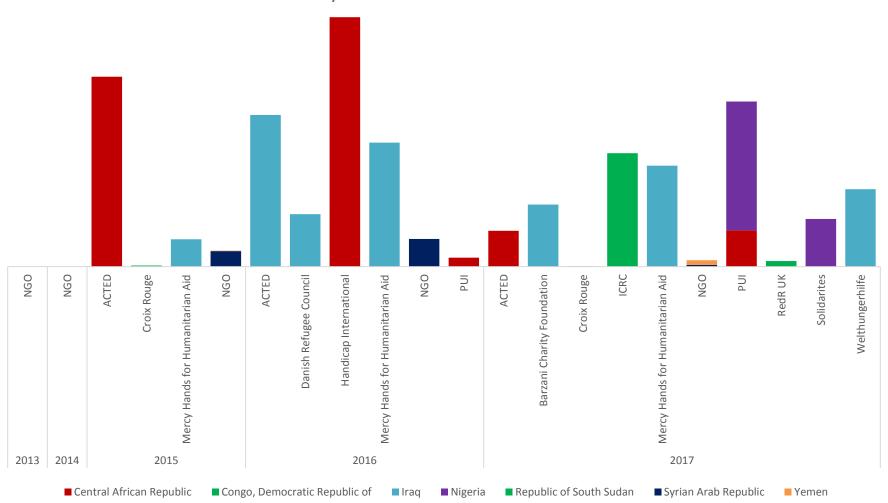
TRANSFERS TO NGO's (WFP SOs)
by YEAR

TRANSFERS TO NGO's (WFP SOs)
by COUNTRY

Logistics Projects

TRANSFER TO NGO's (WFP SOs)
by PARTNER & YEAR & COUNTRY

Who in 2017
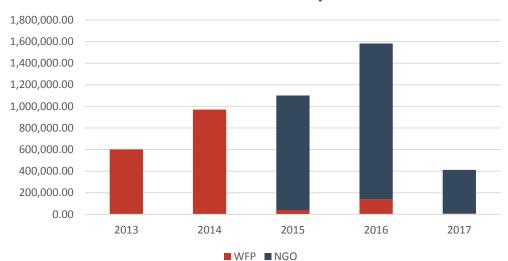
CAR	DRC	IRQ	NGA	SSD	SYR
PUI	HI/AL	ACTED	PUI	IOM	IOM
HI	WFP	BCF	Sol	WFP	WFP
UNHAS		Mercy Hands	WFP		
Sol		Qandil	(Intersos)		
ACF		WHH	**SOM**	**UKR**	**YEM**
WFP		WFP	WFP	WFP	WFP
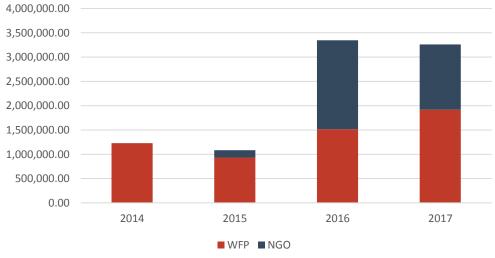
WFP - NGOs

Central African Republic

Iraq
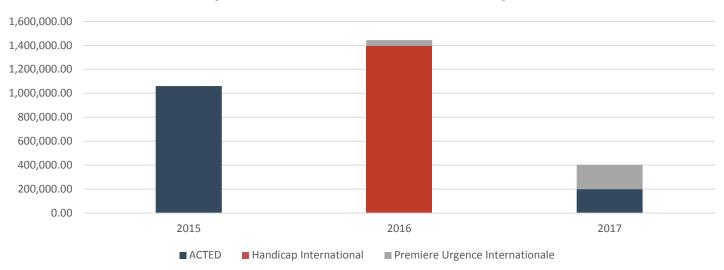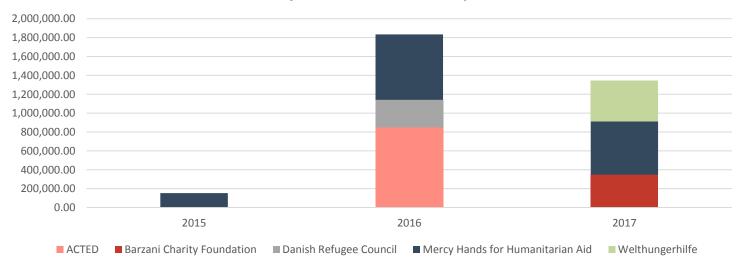
NGOs

Payments to NGOs in Central African Republic

Legend: ACTED, Handicap International, Premiere Urgence Internationale

Payments to NGOs in Iraq

Legend: ACTED, Barzani Charity Foundation, Danish Refugee Council, Mercy Hands for Humanitarian Aid, Welthungerhilfe

Panel discussion

COFFEE BREAK
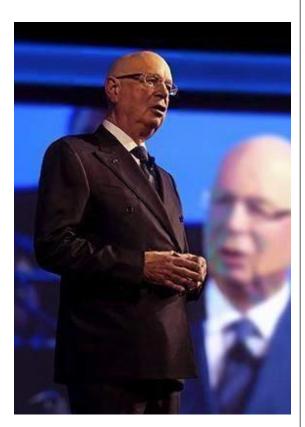
Session will re-start at 11:00

'Trends in Logistics and Supply Chain Technology'

4IR Impact on Humanitarian Action

29 November 2017
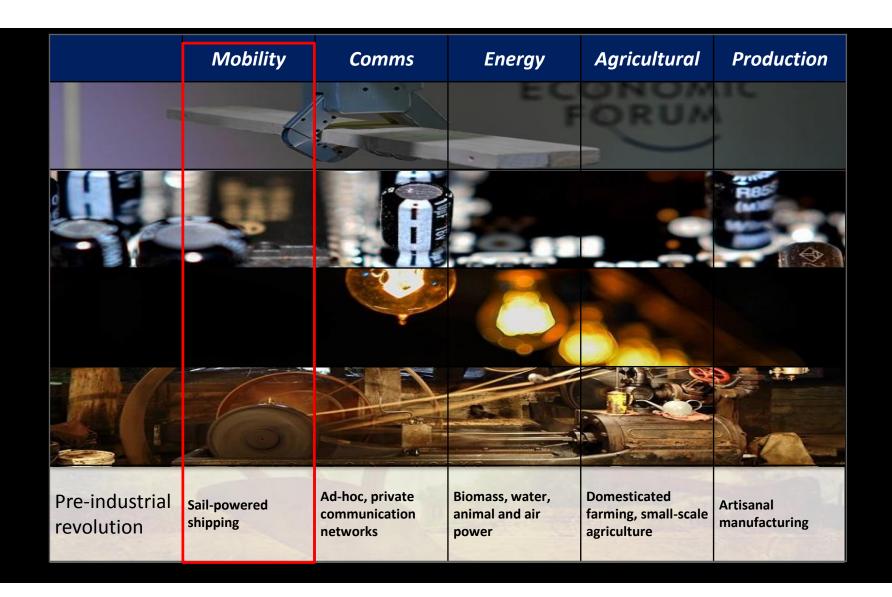
"The changes unleashed by the Fourth Industrial Revolution are so profound that, from the perspective of human history, there has never been a time of greater promise or potential peril."

Klaus Schwab
Founder and Executive Chairman,
World Economic Forum

26

	Mobility	Comms	Energy	Agricultural	Production
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	Comms	Energy	Agricultural	Production
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	Comms	Energy	Agricultural	Production
Second industrial revolution	Oil-powered shipping, road systems, commercial airline	Radio, telephone networks, television, air mail, mass market books	Oil production, gas turbines, electricity system	Artificial fertilizer, mechanized farming, cold chain	Scientific management, mass production systems
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	*Comms*	*Energy*	*Agricultural*	*Production*
Third industrial revolution	Satellite-guided navigation, digital transport	Internet, mobile data, video, digital and social media	Alternative energy systems	Precision farming systems	Outsourced production systems, digital production and consumption
Second industrial revolution	Oil-powered shipping, road systems, commercial airline	Radio, telephone networks, television, air mail, mass market books	Oil production, gas turbines, electricity system	Artificial fertilizer, mechanized farming, cold chain	Scientific management, mass production systems
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

	Mobility	*Comms*	*Energy*	*Agricultural*	*Production*
Fourth industrial revolution	Networks of autonomous vehicles	Neuro-communication	Distributed energy systems	Fully automated farming synthetic meat	Distributed manufacturing, ubiquitous robots
Third industrial revolution	Satellite-guided navigation, digital transport	Internet, mobile data, video, digital and social media	Alternative energy systems	Precision farming systems	Outsourced production systems, digital production and consumption
Second industrial revolution	Oil-powered shipping, road systems, commercial airline	Radio, telephone networks, television, air mail, mass market books	Oil production, gas turbines, electricity system	Artificial fertilizer, mechanized farming, cold chain	Scientific management, mass production systems
First industrial revolution	Steam-power, rail networks, new navigation aids and sea routes	Organized postal networks, newspapers, widespread printing	Coal and coal mining, heat engine and steam power	Increasingly capital-intensive, scale farming, global supply chains	Factory production, first scaled automation
Pre-industrial revolution	Sail-powered shipping	Ad-hoc, private communication networks	Biomass, water, animal and air power	Domesticated farming, small-scale agriculture	Artisanal manufacturing

Six areas where 4IR technologies play out

INTERACTION

Digital **platforms** enable new business models and new forms of engaging, collaborating and analysis. Experience is paramount in today's economy. Three underlying developments stand out: 1- the **cloud** and real-time information access, 2- **AR/VR** which help to connect the physical and digital worlds, and 3- **blockchain/distributed ledger** (DLT) technology in combination with digital identities as the basis for a new quality of trust.

CONTROL

Operational necessities and societal pressures are fueling the need for higher internal visibility and external transparency along supply chains. **IoT** including space data/satellite imagery, which ease analysis and help decision making, enables end-to-end control; **big data**, **artificial intelligence** (AI) and **predictive analytics** offer new ways to manage the supply chain. The (logistics) control tower becomes more performant.

SUPPLY

Robotics, **3D-printing**, AI and industrial internet of things (IIoT) are changing the way goods are manufactured. An unprecedented proximity to users and a new level of personalisation becomes possible. This allows for optimal use of resources and best **tailorisation** to local, situational and invidvidual needs. Blockchain/DLT and **smart contracts** offer a secure way of distributing money, replacing goods if still available in the crisis area.

DISTRIBUTION

Omni-channel stands for integrating physical and digital touch-points. Technologies allow for hyper-connectivity: combining different modes of delivery and overlay them with an equally divers range of communication channels. This offers suppliers as much as the demand side new options to interact and get delivered what is in need. In the 4IR this includes the use of drones and droits.
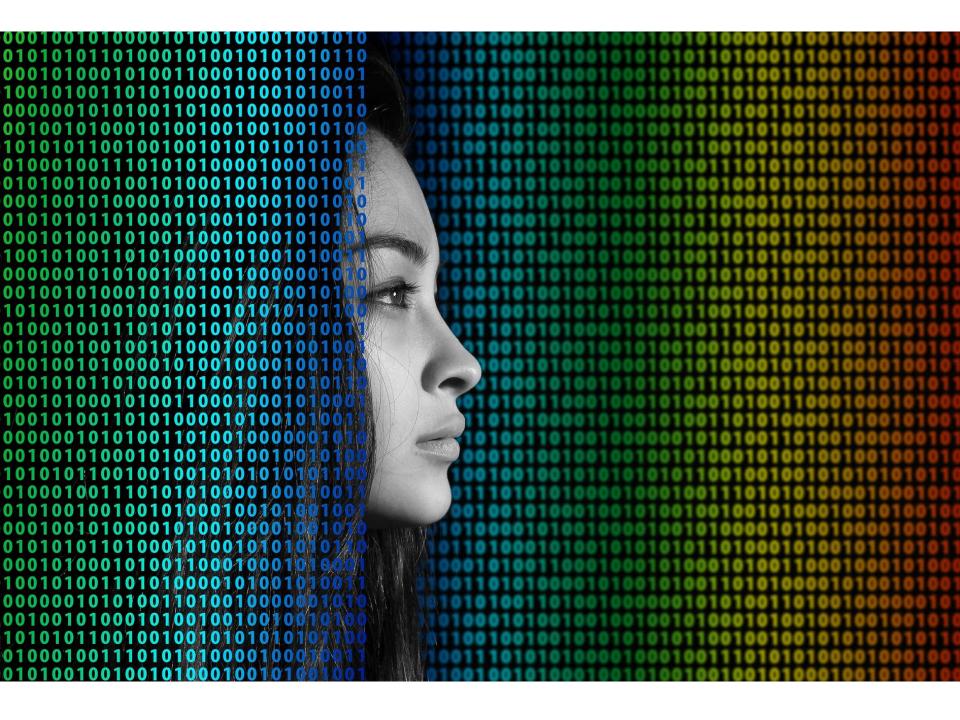
OPERATING

Robotics, IoT and AI are transforming supply chains into **networks of autonomous vehicles and assets**. For consumers autonomous equals electric and hybrid. Transport, logistics and supply chain automation includes autonomous vans and trucks, warehouse robots, drones, and remote-controlled vessels. And machines can increasingly deal with machines (**M2M**) – thanks to smart contracts and blockchain/DLT.

INTEGRATION

Mobility, i.e. the movement of people and goods, is a connected system of systems. **Data is the new oil**. All modes need to and will increasingly interoperate – in hybrid nets, with huge flexibility and high visibility. Most operations will be integrated either in ad hoc systems or permanent systems. While the end-to-end autonomous supply chain emerges and space travel appears at the horizon, the **Hyperloop** might change the definition of the urban and rural space.

CYBER CRIME
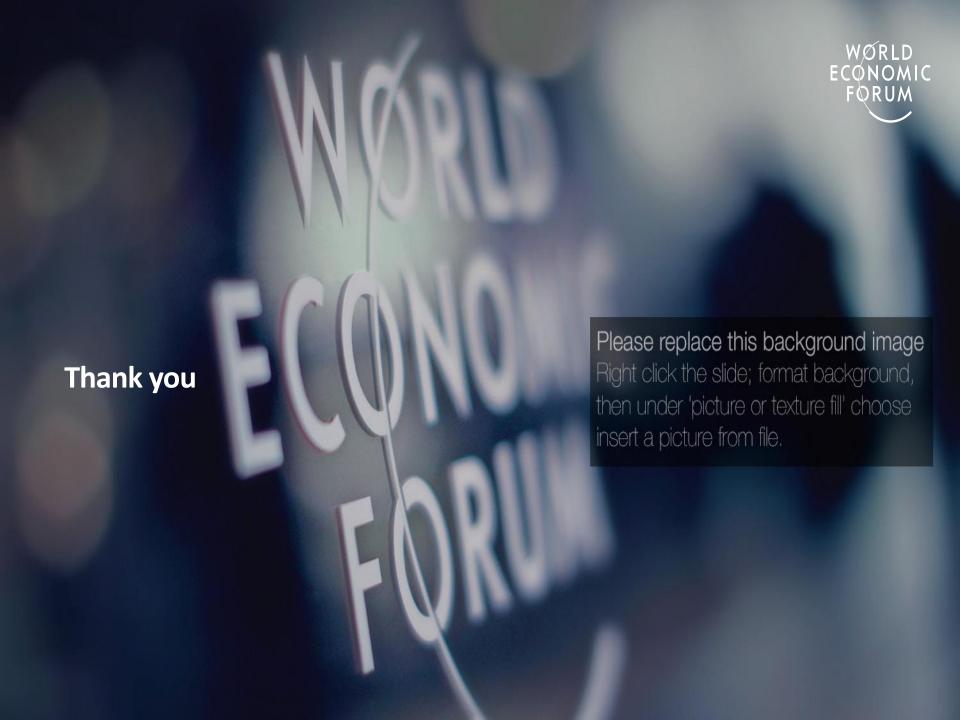
In summary

- The Fourth Industrial Revolution brings opportunities and threats

- Platforms are the new form of connectivity and exchange

- Supply chain visibility is improving – control towers get more performant

- In-market production of tailored goods; token/cryptocurrency

- Operations and communication merge into omni-channel systems

- The future is autonomous – smart contracts enable M2M dealings

- Integration is the new paradigm, data the new oil

- Cyber resilience is critical for technological progress and our security

- Needed: system thinking, protocols and agile governance

Thank you

WFP IRM Update

WFP Supply Chain – Integrated Road Map
Logistics Cluster Global Meeting
29 November

The Integrated Road Map: WFP's Approach to Achieving Zero Hunger Involves Four Interrelated Processes that are Under Implementation

STRATEGIC PLAN (2017-2021)

Align Strategic Plan and objectives with relevant Sustainable Development Goals

CORPORATE RESULTS FRAMEWORK

Provide holistic and coherent view of operational and management results in a Corporate Results Framework

IRM

COUNTRY STRATEGIC PLANS

Define WFP's role and portfolio of assistance through the policy on Country Strategic Plans

FINANCIAL FRAMEWORK REVIEW

Better align resources and results to improve decision-making with an alternative budget structure developed through the Financial Framework Review

COUNTRY PORTOFOLIO BUDGET

WFP STRATEGIC GOALS	1.SUPPORT COUNTRIES TO ACHIEVE ZERO HUNGER (SDG 2)	2. PARTNER TO SUPPORT IMPLEMENTATION OF THE SDGS (SDG 17)

WFP STRATEGIC OBJECTIVES	1. END HUNGER	2. IMPROVE NUTRITION	3. ACHIEVE FOOD SECURITY	4. SUPPORT SDG IMPLEMENTATION	5. PARTNER FOR SDG RESULTS

Bangladesh – Logistics Sector

Funding requirement: US$1.9 million
Shortfall: US$1 million (expected to be received before the end of 2017)

Key observations from the transition from Special Operation to I-CSP:

➢ There was no negative impact on operations during the transition period. Although there were internal delays due to the lack of clarity surrounding the budget revision, this did not impact or slow down the response. A Lessons Learned exercise on this issue is currently being finalized.

➢ This internal restructuring of the WFP financial architecture has been approved and fully endorsed by the Executive Board (i.e. Member States & Donors)

WFP Strategic Goal (SDG 17)
Partner to support Implementation of the SDGs

WFP Strategic Objective 4
Support SDG Implementation

WFP Strategic Objective 5
Partner for SDG Results

WFP Strategic Result 5
Countries have strengthened capacities to implement the SDGs

WFP Strategic Result 8
Sharing of knowledge, expertise and technology to strengthen global partnership to support country efforts to achieve the SDGs

Resilience Building

Crisis Response

Strategic Outcome 4
The humanitarian Response System for Large-Scale Natural Disasters in Bangladesh can response with Reduced Cost and Lead Time

5.2 Partners' demand for quality services fulfilled

Strategic Outcome 5
Humanitarian and development partners in Bangladesh have access to reliable services in the areas of supply chain and emergency telecommunications during crises

8.1 Enhanced common coordination platforms

LUNCH BREAK

Session will re-start at 13:30

'Trends in Logistics and Supply Chain Technology'

SOUTH SUDAN

SkyPAK Technology

November 2017

- Initiated by WFP Logistics for Vegetable Oil deliveries

- Efficiencies in Costs and delivery time

Logistics Cluster South Sudan

What is Sky PAK

- Packaging technology

- Airdropping of some initial key items carried out in the trial
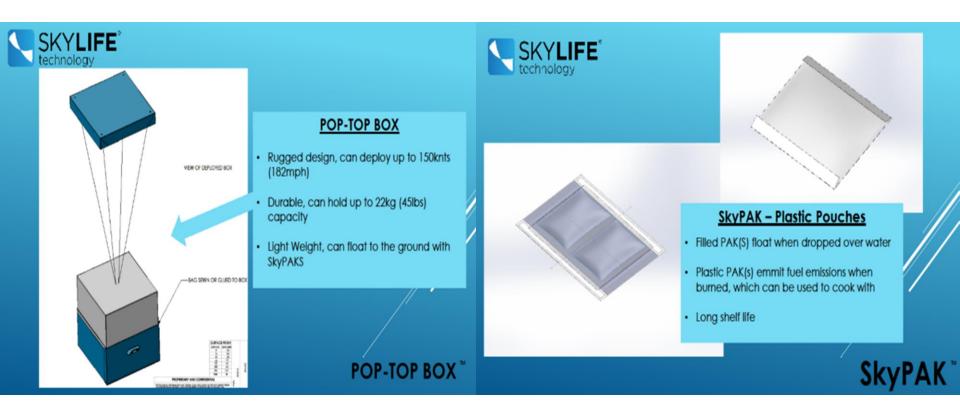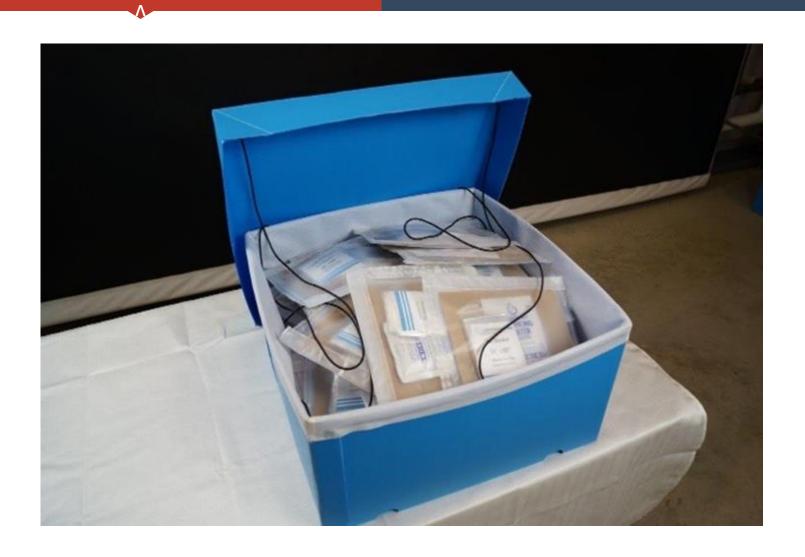
- Prepackaged items
- Plastic pouches and Pop top boxes

Logistics Cluster South Sudan

Air ops

Logistics Cluster South Sudan

- Rapid Aerial Deployment capabilities

- Life sustaining delivery of pre-identified items

- Targeted distributions to populations

- Access to inaccessible areas

- Light packaging and dispersal methods means the population is not at risk

- Innovation- packaging designed to suit what organisations need

Logistics Cluster South Sudan

Work in Progress

- Environmental concerns regarding the disposal of packages

- Sensitizing populations on items received

- Infrastructure set-up (packaging lines, Aircraft)

- Potential costs – yet to be finalized

- Short term impact only

Questions?

Mobile Project –
Full traceability
throughout the entire
Supply Chain
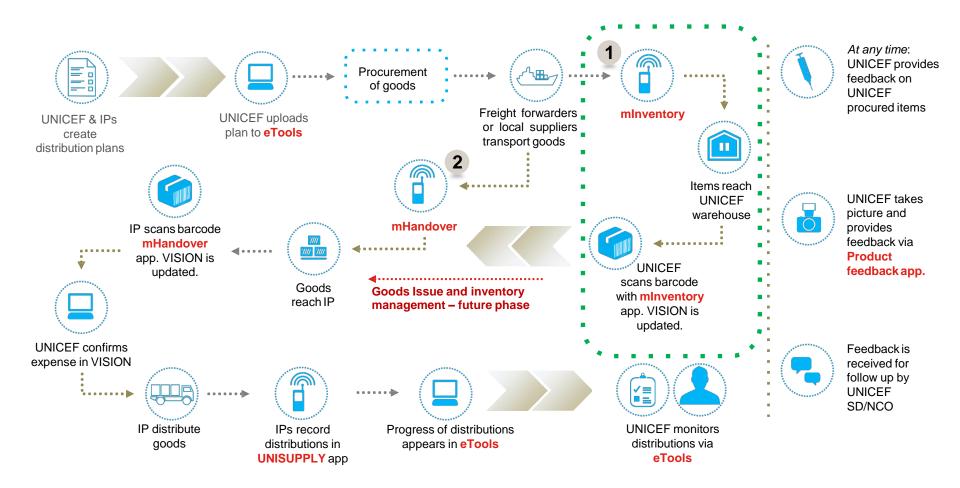
Identification of solutions
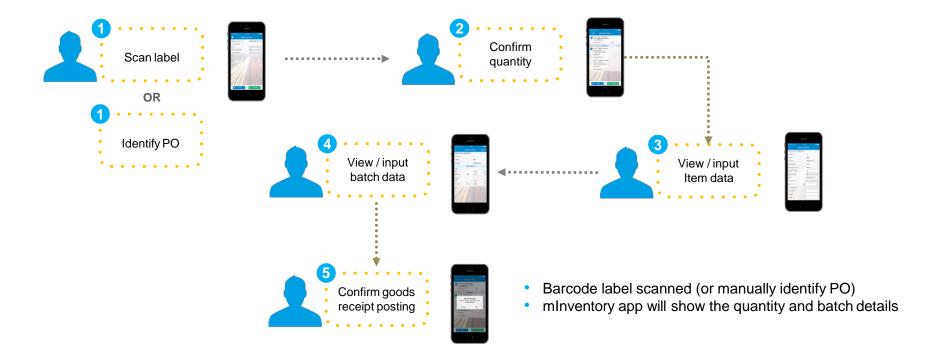
Following analysis of potential solutions the project team proposed a combination of 4 mobile applications:

- **Goods receipt app (UNICEF): mInventory application**
  UNICEF registers receipt of supplies through a mobile application that sync automatically with VISION

- **Goods Receipt App (IP's): mHandover application**
  IP's registers receipt of supplies through a mobile application that sync automatically with VISION

- **IP distribution: UNISUPPLY application (e-Tools)**
  IP's record distribution of supplies as they are provided to the affected population through a mobile application. UNICEF monitors via eTools dashboard

- **Product feedback application**
  IP's provide feedback on quality of supplies for corrective and preventive action and product improvement through mobile application

How the solution works

UNICEF & IPs create distribution plans

UNICEF uploads plan to **eTools**

Procurement of goods

Freight forwarders or local suppliers transport goods

1

mInventory

Items reach UNICEF warehouse

UNICEF scans barcode with **mInventory** app. VISION is updated.

2

mHandover

Goods Issue and inventory management – future phase

Goods reach IP

IP scans barcode **mHandover** app. VISION is updated.

UNICEF confirms expense in VISION

IP distribute goods

IPs record distributions in **UNISUPPLY** app

Progress of distributions appears in **eTools**

UNICEF monitors distributions via **eTools**

At any time: UNICEF provides feedback on UNICEF procured items

UNICEF takes picture and provides feedback via **Product feedback app.**

Feedback is received for follow up by UNICEF SD/NCO

3

mInventory – work flow

1. Scan label

OR

1. Identify PO

2. Confirm quantity

4. View / input batch data

3. View / input Item data

5. Confirm goods receipt posting

- Barcode label scanned (or manually identify PO)
- mInventory app will show the quantity and batch details

4

Barcodes supported

45147795~10~S0000208~5~B11015~140101~171231

500896830001

Barcode label from suppliers

1. UNICEF PO
2. PO item number
3. UNICEF material number
4. Quantity
5. Batch number
6. Manufacturing date
7. Expiry date

Barcode label from SD Warehouse
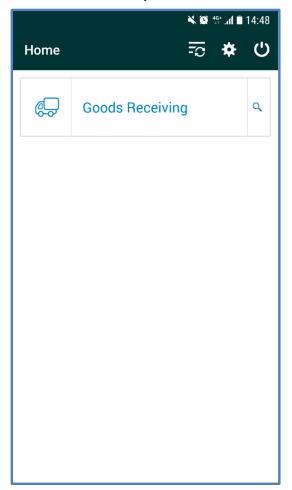
Delivery number + Handling Unit number

Feed-back from pilots

Major benefits observed during the emergency operation:

- Very positive feedback from the whole Emergency team including the local warehouse manager

- Hugh improvements in speed and accuracy

- Real time goods receipts in VISION – no backlogs

- Mobile

- 3G/4G as well as off-line
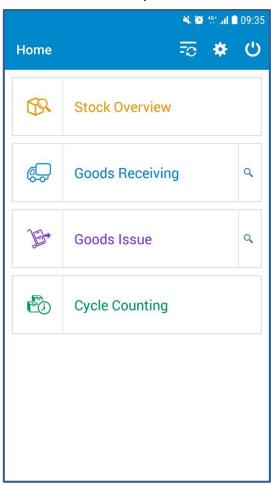
**Phase 1
GR Project into UNICEF
Whs**

2016/17

Home

Goods Receiving
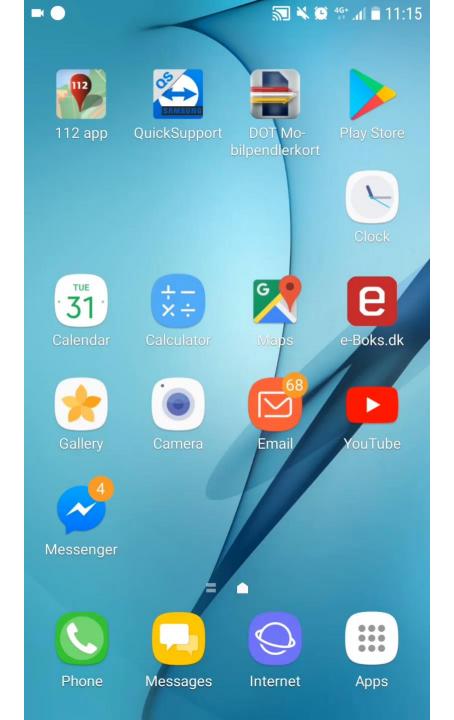
**Phase 2
Complete whs platform
"Warehouse in a pocket"**

2018/19

Home

Stock Overview

Goods Receiving

Goods Issue

Cycle Counting

112 app

QuickSupport

DOT Mo-
bilpendlerkort

Play Store

Clock

Calendar

Calculator

Maps

e-Boks.dk

Gallery

Camera

Email

YouTube

Messenger

Phone

Messages

Internet

Apps

Questions?

SUPPLY CHAIN SYSTEM DESIGN

DRONES IN RWANDA

First of its kind national drone network for the delivery of essential medical supplies demonstrates three levels of innovation

- Technology innovation – the drone

- Use case innovation – "When time matters!"

- Partnership innovation – Gavi- UPS- Zipline- Government of Rwanda

Plan International Recharge Tool: Calculating Vehicle Costs

Rebecca Lewin, Plan International

Right-Sizing Fleets: Experiences from Plan International

Maria Besiou, KLU

Logistics Cluster Meeting

PLAN INTERNATIONAL RECHARGE TOOL: CALCULATING VEHICLE COSTS

Rebecca Lewin

Christos Bitos

Laura Turrini

Maria Besiou

Paul Bradford

MOTIVATION – Plan International

- Plan International engaged in Fleet Management with different objectives, all aimed at improving fleet efficiency and reducing costs:

    - Globally standardize procurement, replacement and operational policies for their fleet (vehicles + motorbikes)

    - Identify the country offices which perform best and explore the reasons behind this success

- Engagement with academia to get access to the most recent and rigorous scientific advances

WHY

- Increase transparency of our actual expenses

- Make use, and improvement, of own data

- Support country offices to improve cost recovery on our grants

- Analyze trends

- Transparency on costs with our donors

- Identify areas of improvement, with special attention to fleet replenishment needs

EMPIRICAL STUDY– Plan International

Description of the Organization

- 52 countries of operations
  - Relief operations
  - Development programs

- Approximately 45% of budget comes from sponsorships, 34% from institutional grants and 21% from other income sources

- Long term commitment: only in 8 countries since less than 10 years, in 20 since more than 30 years

- 403 field offices, on average ~7.7 per country (including the country office)

- Operates a fleet of around 1000 4x4 vehicles and 2500 motorcycles
  - Average age of 4x4, 8 years

Data

- Data spanning two years (2015 – 2016)

- Discussions with staff members at Plan International

HOW

❑ Collected and/or calculated the below values:

- Number and types of vehicles

- Vehicles purchasing costs

- Average km/vehicle/year

- Total working days for each country

- Average fuel consumption

    - Large variation

    - Normalization according to our best performing countries on the 25th – 50th percentile

- Fuel cost/liter

    - Current fuel cost/liter

- Average maintenance costs

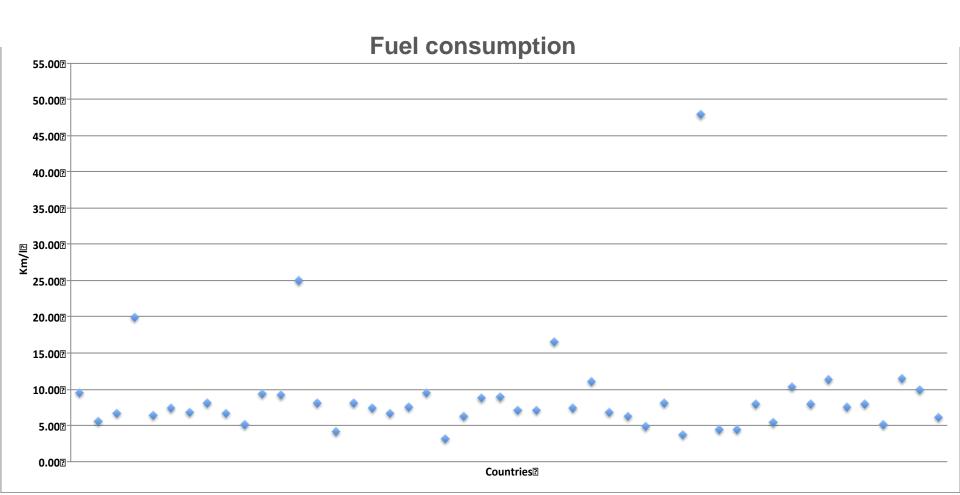   - Normalization according to our best performing countries on the 25th – 50th percentile
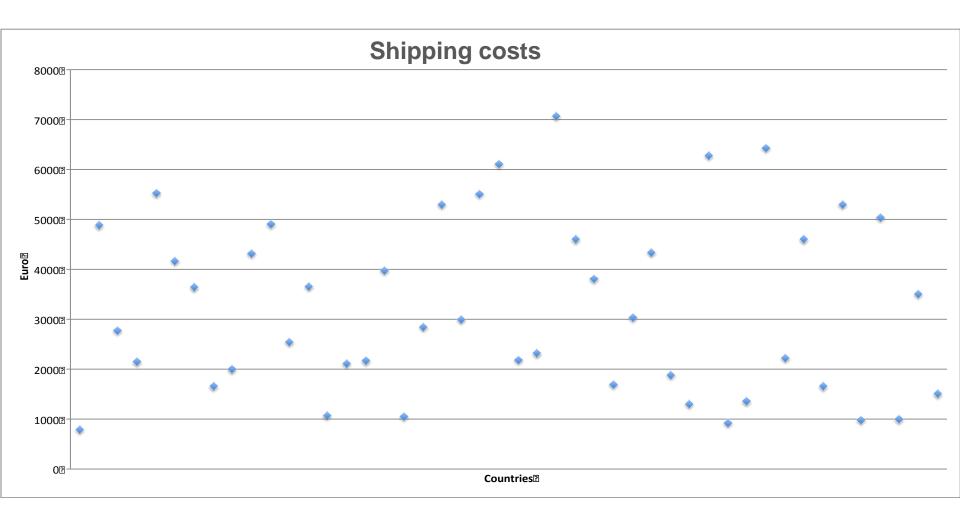
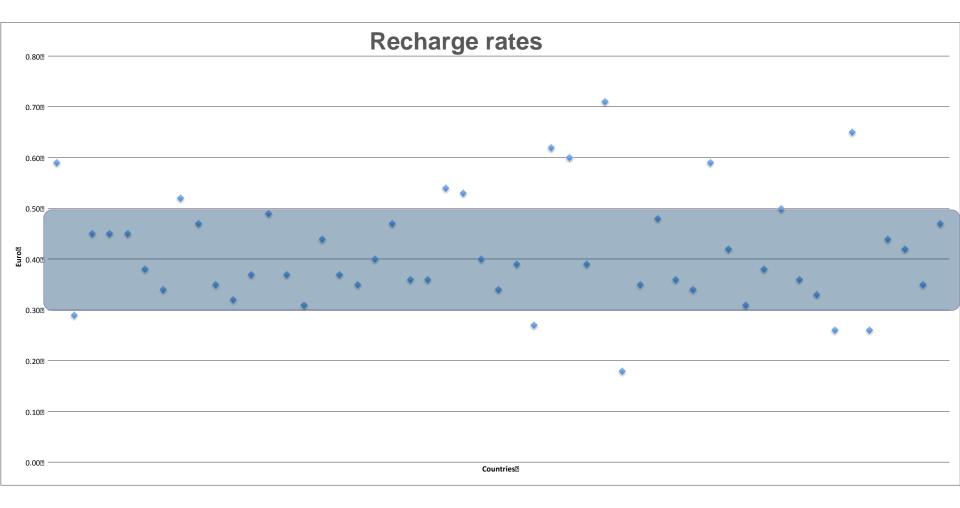❑ Compared with available datasets from other International NGOs

HOW IT LOOKS LIKE

PLAN International Recharge Tool	FY18			

	4x4	SALOON	MOTORCYCLE	OTHER
Vehicle Numbers	26	1	45	4
Average kms per veh pa	18880	18880	11596	19323
Total working days per annum	250	250	250	250

OPERATING COSTS	km / l	km / l	km / l	km / l
Average fuel consumption	4,11	10	27,56	5,13
Normalized fuel consumption	6,21	10	17	7
	EUR	EUR	EUR	EUR
Fuel cost per litre	0,7	0,7	0,69	0,7
Average fuel cost per km	0,11	0,07	0,04	0,10
Average maintenance cost per km	0,11	0,07	0,04	0,13
Normalized average maintenance cost per km	0,11	0,07	0,04	0,13
AVERAGE OPERATING COSTS PER KM	0,22	0,14	0,08	0,23

VEHICLE PURCHASING COSTS	EUR	EUR	EUR	EUR
Purchase cost	30000	19000	2300	32500
Avge freight cost per vehicle	2166,94	2166,94	0	2166,94
Import costs per veh (docs, registration, etc.)	750	750	250	750
Import duty Value	0	0	0	0
TOTAL VEHICLE PURCHASING COSTS PA	32917	21917	2550	35417

OTHER COSTS	EUR	EUR	EUR	EUR
Licence & Insurance cost pa per vehicle	105	105	105	105
VTS cost pa per vehicle	200	200	200	200
Other	0	0	0	0
TOTAL OTHER COSTS PA	305	305	305	305

	4x4	SALOON	MOTORCYCLE	OTHER
VEHICLE COST SUMMARY	EUR	EUR	EUR	EUR
Total Cost per vehicle pcm	376	246	103	396
Total cost per vehicle per day	18	12	5	19
Total Cost per vehicle per km	0,24	0,16	0,11	0,25

	4x4	SALOON	MOTORCYCLE	OTHER
RECOMMENDED RECHARGE SUMMARY	EUR	EUR	EUR	EUR
Recommended Recharge Rate per vehicle pcm	641	396	52	687
Actual/Adjusted/Global	Adjusted	Actual	Adjusted	Global
Recommended Recharge Rate per vehicle per day	30,78	19,03	2,51	32,99
Actual/Adjusted/Global	Adjusted	Actual	Adjusted	Global
Recommended Recharge Rate per vehicle per km	0,41	0,25	0,05	0,43
Actual/Adjusted/Global	Adjusted	Actual	Adjusted	Global

RESULTS

Fuel consumption

RESULTS

Shipping costs

RESULTS

Recharge rates

Plan International ©

RESULTS

- Out of 52 countries:
  - ❑ 4x4:
  - 38 are on actual or slightly adjusted rates for FY18
  - 14 are on global rates for FY18

  - ❑ motorcycles:
  - 30 are on actual or slightly adjusted rates for FY18
  - 22 are on global rates for FY18

  - ❑ Saloon:
  - 38 are on actual or slightly adjusted rates for FY18
  - 14 are on global rates for FY18

WHAT IS NEXT?

Right-Sizing Fleets: Experiences from Plan International
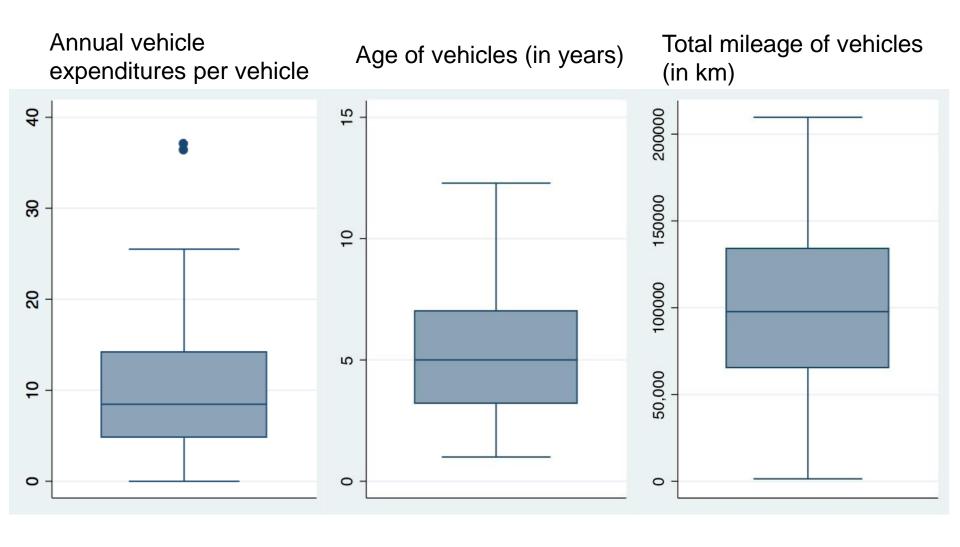
Maria Besiou, KLU

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Paul Bradford, Plan International
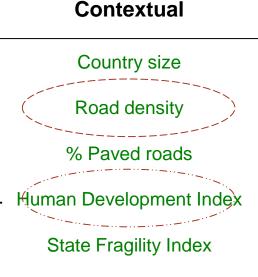
OBSERVING THE DATA – 2016 (per country)

Annual vehicle expenditures per vehicle

Age of vehicles (in years)

Total mileage of vehicles (in km)

RESULTS: A few variables explain a lot

Plan International Variables

Contextual	Organizational
Country size	Field expenditures
Road density	Number of staff
% Paved roads	Number of field offices
Human Development Index	Years in country
State Fragility Index	Number of projects
	Disasters responded
	Budget vs. actual
	Value of grants
	Sponsored children

The more roads, the fewer vehicles

The more developed the country, the fewer vehicles

The more staff, the more the vehicles

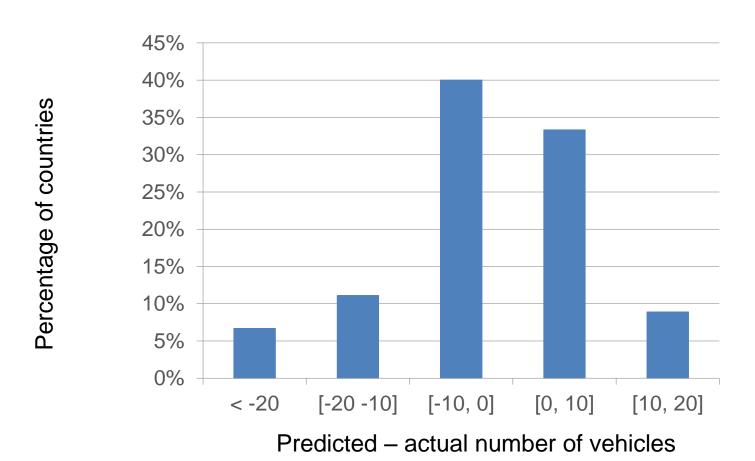The closer to the budget the actual, the more the vehicles

The main driver is the number of sponsored children!

PREDICTED VS. ACTUAL NUMBER OF VEHICLES

Approximately 75% of the countries have an actual number of vehicles between ±10 from the value predicted by the model

YEARLY MILEAGE DEPENDS ON THE AGE OF VEHICLE

Literature (mostly based on UN or other large HOs' fleet) assumes that vehicles are used most intensively for the first two years.

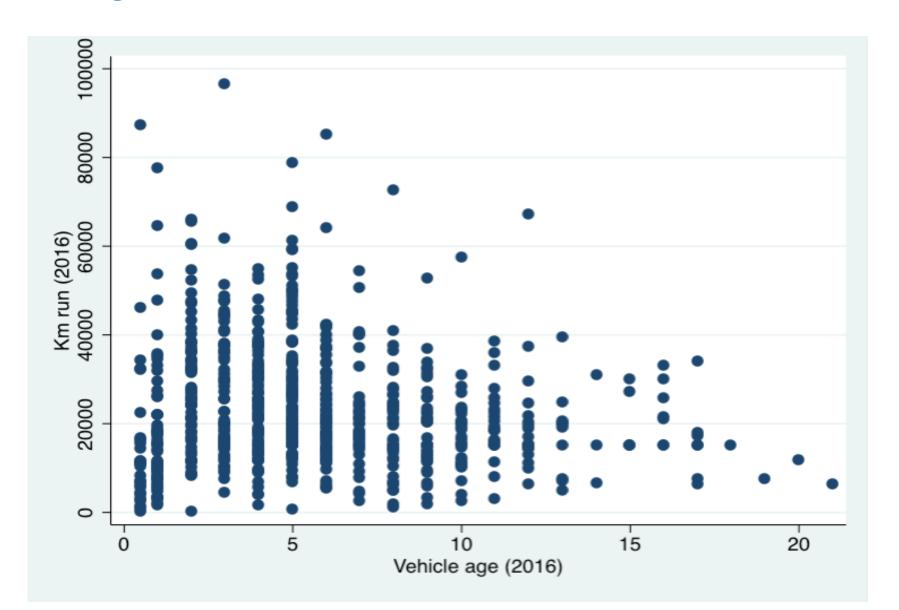Does this hypothesis hold in the case of an international NGO?

Discussions with Plan suggest that they use their vehicles:

- Most in the first 5 years

- At a declining rate until year 8

- After year 8 the vehicle is considered almost "dead"

- When the vehicle is very new, it is sometimes not used at full capacity

What can we see in the data?

YEARLY MILEAGE DEPENDS ON THE AGE OF VEHICLE

NEXT STEPS

Plan:

- Use results in their strategic cost strengthening project

- In particular, use information about the outlier countries to strategically focus the efforts in the process

- Use results to roll out the fleet disposal policy

Academic side:

- Enlarge the dataset
    - More years
    - More NGOs?

- Ultimate goal: to compile these results into an academic paper

Logistics advocacy white paper

Market place session

Leysin, Nov 29th, 2017

CECILE TERRAZ/ MAXENCE
GIRAUD

About what we do

The supply chain is the spine of all our operations.

If the supply chain is unefficient, broken, weak or unsupported, it systematically affects the quality of our programing and response and utlimately the service to our beneficaries.

Supply chain

60-80 % of the humanitarian cost

The quality of our project rely on the efficiency of the supply chain

Supply chain makes it or breaks it

When supply chain is efficient, beneficiaries are better

No products, no emergency

Save life

Bigger spending in NGOs

quality of the product)

98

Background

Vision

The role and impact of humanitarian logistics (supply chain) is often not understood or not recognized for what it actually is within the humanitarian sector. This usually leads to a lack of involvement & influence in key strategic decision-making.

One of the direct consequences of that reality is that logistics tends to be under-represented and, therefore, **unable to play the role it should in the global humanitarian sphere; despite its critical involvement in delivering humanitarian relief.**

More than having humanitarian logistics understood and recognized**, we want it to position itself as an effective key player & partner in the NGO/inter-agency sector where it can influence strategic decisions & actively improve humanitarian responses around the globe.**

.

Session Objective

The objective of this white paper is to enable logistics to intervene and be involved upstream in the decision & allocation of funds process, the high benefit for NGOs that would come from placing Logistic more at the center.

Logistics must be at the center of the funding & project process as a key player to change the game:

We'll develop in the market session the model that should enable logistics to allow more capacity and resources to operate.

Model I today: Collect & Use the money VS.

Model II tomorrow: Collect & Optimize the money

Session Objective

Starting from the observation that the supply chain is a major issue for a humanitarian response **(60-80% of funding)** and that we operate in unstable environments, where infrastructure is poorly functioning and where the issues of access to populations are increasingly persistent, **logistics is a key success factor** for the implementation of emergency assistance Regardless of the context, logistics has as well **a major role in structuring humanitarian responses** and must be able to ensure continuity of supplies of aid to affected populations

This is possible if logistics is **systematically involved in the contextual analysis and has sufficient power to influence the structuring of responses.**

We have the ambition to **transform the vision / perception of the added value that logistics can bring to the humanitarian sector in order to modify the funding gap paradigm.**
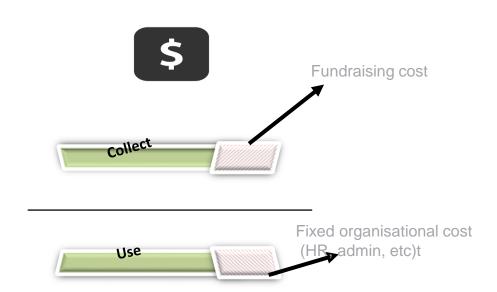We think to question the financial calculation of the needs by considering the opportunities of rationalization of the costs that the logistics bring which will ultimately, maximize the impact with the vulnerable populations.

This is possible if the logistics is mandated on the search for value for money (and not only on donors accountability).

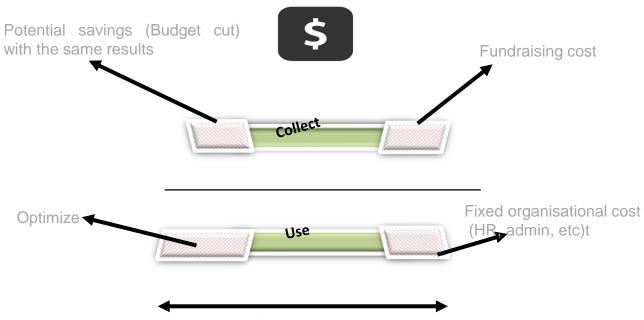**This is possible if logistics is considered a strategic player in the humanitarian sector.**

Model 1

Collect & Use

$

Fundraising cost

Collect

Use

Fixed organisational cost (HR, admin, etc)t

Model 2

Collect & Optimize

Potential savings (Budget cut) with the same results

$

Fundraising cost

Collect

Optimize

Fixed organisational cost (HR, admin, etc)t

Use

Project incremental + investment year after year can do more with the same initial investment

Model 2

Collect & Optimize

"Impact optimization", about striving at impacting more year on year with the same budget envelop. This can be done only if we intentionally strive at being more cost efficient, which requires a strategic approach and to consider some initial investments that will help doing more with less in the mid-long term

MEDAIR

Continuously Improving Humanitarian Logistics with Lean – Marketplace
Logistics Cluster Global Meeting

Andrew Parris, PhD - Process Excellence Manager
Lean Six Sigma Master Black Belt

29 November 2017

Medair Marketplace Agenda

1. **What is Lean?**
   – Intro to Lean Management System for continuous improvement
   – Brief history (Toyota), growth (to most industries) and impact of Lean
   – Key elements of Lean
2. **Lean in Humanitarian work**
   – Similarities and differences in Logistics context
   – Process Excellence
3. **Lean in World Vision East Africa Region**
   – Approach and examples of process improvements in SCM and Finance
4. **Lean in Medair**
   – Our approach, plan and lessons so far
   – Partnership with Kuehne Foundation
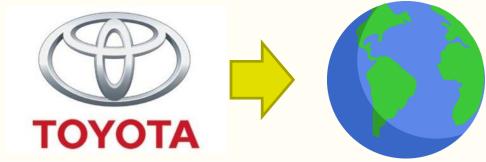5. **Ideas on getting started with Lean**
   – First steps, online resources, pro bono help, community of practice
6. **Q&A**

What is Lean?

A proven management system
for continuously improving performance
by eliminating waste

Developed by Toyota
now applied in almost all industries

Lean History and Growth

Henry Ford

Kiichiro Toyoda

James P. Womack   Daniel T. Jones

Frederick Taylor
Henry Ford
Edwards Deming
Joseph Juran
- **Flow**
- **Standard Work**
- **Continuous Improvement**
- **Quality**
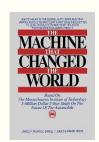
Sakichi Toyoda
Kiichiro Toyoda
Taiichi Ohno
Shigeo Shingo
- **Toyota Production System**
- **Minimize Waste**
- **Just in Time**
- **Quick Set Up**

James Womack
Daniel Jones
John Shook
- **"Lean"**
- **Value**
- **Respect for People**

The Routledge Companion to Lean Management

Edited by Torbjørn H. Netland and Daryl J. Powell

Production and Operations Management

ETH zürich

TOYOTA

What is Lean? *(From The Toyota Way by Jeffrey Liker)*

- Have and work towards a **long term perspective**

- **Continuously improve** through **solving problems** at **root cause**

- Understand **customer value** and increasing it by **eliminating waste**

- **Respect** employees – **build** and **challenge** their **ability** to improve

- **Focus on processes** because **good processes get good results**

  - and therefore…

Excellent processes get excellent results

What is Logistics?

- **The task of managing and administrating flows:**

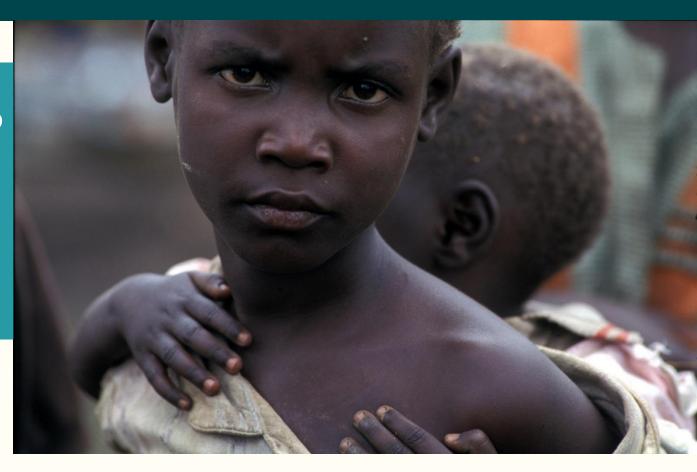 – **Of Goods**
  – **Of Services**
  – **Of Works**

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The purpose of a logistics system is to deliver the appropriate supplies, in good condition, in the quantities required, and at the places and time they are needed.

This is the same in Private and Humanitarian Sectors

What is Humanitarian Logistics?

The role of logistics **within an NGO** is to support projects **in the field** by managing the resources and the supply chain.

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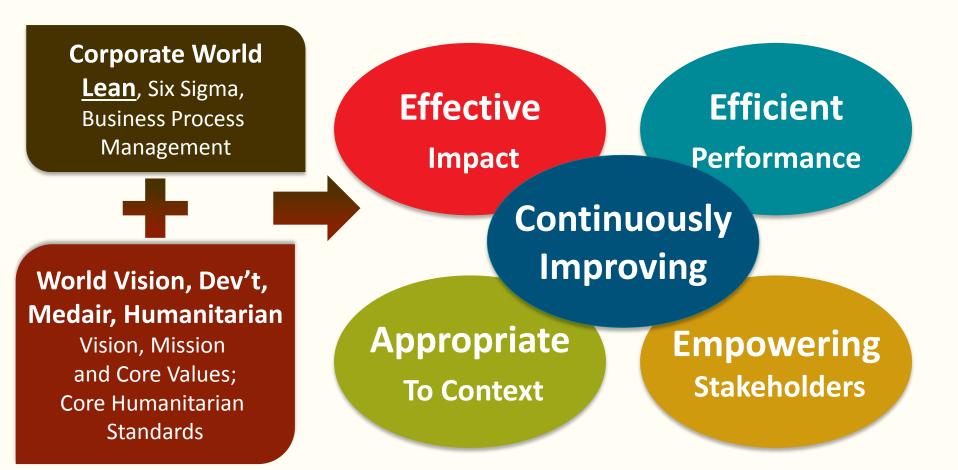The field and the organization are different between Private (Corporate) and Humanitarian Sectors

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10 Differences: Private & Humanitarian Sectors

Aspect	Private	Humanitarian
Purpose	Provide goods and services for profit	Save lives and relieve suffering
Staff Availability & Turnover	Many available with low turnover due to stable environments & good conditions	Few available with high turnover due to challenging and changing environment
Motivation	Financial > intrinsic	Intrinsic (mission) >> financial
Customer	One customer pays and receives	Donor pays and beneficiary receives
Stakeholders	Employees, suppliers, other companies distributors, customers	**And** very active donors, other NGOs, beneficiaries, communities, governments, media
Uncertainty	Generally manageable	High unpredictability, frequent changes
Funds	Flexible from shareholders, banks and profit; higher profit is better	Inflexible from inst. donors; no profit; goal of no over/underspend, limited overhead allowed
Overhead	No one cares; just make a profit; 15-25%	Donors want to see low as possible; goal < 10%
Location	Stable w/good infrastructure desired	Devastated with poor infrastructure and conflict
Start and Growth	Start small and grow offering & market	Respond immediately to crisis; leave when stable

From: Max Ebner "A Study on Lean Implementation at a Humanitarian Organization " – Master's Thesis @ ETH 31 August 2017

Significantly Greater Instability and Challenges!

Process Excellence – Lean for NGOs

Corporate World
Lean, Six Sigma, Business Process Management

+

World Vision, Dev't, Medair, Humanitarian
Vision, Mission and Core Values; Core Humanitarian Standards

→

Effective
Impact

Efficient
Performance

Continuously Improving

Appropriate
To Context

Empowering
Stakeholders

Process Excellence

Effective

Our processes are reliable and bring relief

Efficient

Our processes are simple, standard, timely and integrated

Continuously Improving

We are accountable, correct problems quickly, and apply learning

Appropriate

We respect all stakeholders, are flexible, and use appropriate technology

Empowering

We make decisions locally, partner with stakeholders, and have needed capacity

Delivering the **greatest value** with the **fewest resources** at the **right time** and in the **right way**

Approach and Impact in World Vision East Africa

450 Staff and Leaders Energised for Process Excellence

56 LSS Green Belts
and 11 Black Belts
(PI Leads)

Kai — Change
Zen — Good

33 PIPs, 32 WMIBs

Reduced annual costs by over *$1.5 Million*

Reduced span time by average
59%
(on targeted processes)

Contributed to:
• **Reduced underspending**
• **Transformed culture**
• **Improved reputation**
• **Mobilisation of resources**

Sample Lean Impact in World Vision East Africa

- **Process Improvement impact...**
  - Hiring someone in 41 days instead of 130 days *(WV Ethiopia)*
  - Reducing rejected payment requests from 40% to 4% *(WV Uganda)*
  - Constructing classrooms in time for school to begin *(WV Burundi)*
  - Reducing the end-of-the-year spending push (burden) *(WV Uganda)*
  - Finding more waste and reducing costs by $500,000 *(WV Kenya)*
  - Winning a $424K WFP grant by being more competitive *(WV Kenya)*

Goals of Lean and Process Excellence in Medair

- **To have greater impact (help more people and relieve more suffering)**

- **To better meet donor requirements and expectations, and thus generate more income**

- **To reduce burden on Medair employees and volunteers**

- **We achieve these things by making our work easy to do right quickly**

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Seven Lean ways to eliminate waste and simplify

1. **Identify value**

2. **Prevent mistakes**

3. **Organize the area**

4. **Standardize work**

5. **Make work visual**

6. **Make work flow**

7. **Solve problems**

Key Lessons Learned

- **Leadership commitment is essential, but not enough**
  - **Train** and **coach** leaders to think and act as Lean Leaders

- **Change is hard! Everyone is very busy**
  - Use **workshops** to accelerate change; make improvement a **priority**

- **People have ideas on how to improve**
  - But you have to **ask them** and **motivate/require** improvement

- **Build capacity**
  - **Train** and **coach** people to improve; some will run with it

- **Demonstrate success to motivate change**
  - **Measure**, document and **share** stories

Medair Partnership with Kuehne Foundation
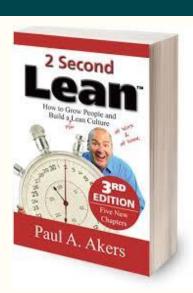
- **Lean applies to humanitarian work**
  - Both in theory and in practice

- **The best way to build capacity is train and do**
  - Learn the thinking and tools
  - Apply them in real context

- **Our plan is to jointly run training and workshops**
  - Participate
  - Lead with coaching
  - Lead on own

KÜHNE-STIFTUNG

Ideas on getting started with Lean

- **Learn about Lean**
  - 2 Second Lean (*http://paulakers.net/books/2-second-lean*)
  - Lean Enterprise Institute (https://www.lean.org)
  - Global Lean Network (http://planet-lean.com/)
- **Get commitment (or at least permission) to begin**
- **Find and support the pioneers in your organization**
- **Get help from Lean Professionals**
  - Many are willing to provide pro bono training, coaching and guidance
  - Maybe a company you know that benefits from applying Lean
- **Participate in a Community of Practice**
  - Lean4NGO, Logistics Cluster?
  - Sharing experiences, training materials and tools
  - Visiting companies that excel in Lean
  - Global Lean 4 NGO Summit

Key Points

- **Lean is a proven approach to eliminating waste and improving performance**

- **Humanitarian Logistics has similar objectives to "normal" logistics**

- **Humanitarian Logistics operates in a much more (very) challenging context**

- **Lean can be applied in the humanitarian context – Process Excellence**

- **Lean has been shown to generate significant impact in the humanitarian context, and some NGOs are beginning to apply Lean in their work**

- **Lean can help us save more lives, reduce more suffering, satisfy donor requirements and ease the burden on our staff**

- **Lean begins with leadership commitment, requires effort, must demonstrate impact, benefits from coaching, and learns from & shares with others**

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Questions?

andrew.parris@medair.org

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Process Excellence

Continuously Improving Humanitarian
Logistics with Lean © Medair 2017

Process Excellence

Effective

Our processes are reliable and bring relief

- **Reliable**: *They consistently and safely deliver quality, valued outputs and impact*
- **Relief**: *They relieve or facilitate relieving human suffering for the most vulnerable communities*

Process Excellence

Efficient

Our processes are simple, standard, timely and integrated

- *Simple: They are intuitive, clear, concise, visually organised, and easy to perform correctly*
- *Standard: They use defined, common workflows, tools, roles & responsibilities, policies, and expectations*
- **Timely**: *They flow smoothly (minimum hand-offs, delays, rework) to provide output when needed*
- *Integrated: They seamlessly integrate with other processes and into a larger, optimised system*

Process Excellence

Appropriate

We respect all stakeholders, are flexible, and use appropriate technology

- *Respect*: *We honour all who are involved in or affected by our work, and their rights, values and beliefs*
- *Flexibility*: *We adapt to different contexts and respond easily to changing situations*
- *Technology*: *We use reliable technology that is appropriate to the purpose, user, and use environment*

Process Excellence

Empowering

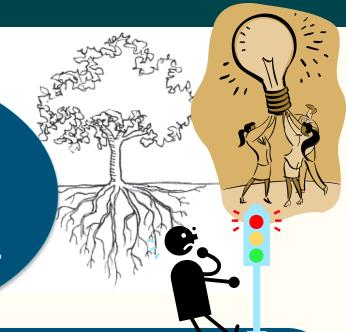**We make decisions locally, partner with stakeholders, and have needed capacity**

- *Local Decisions*: We make decisions transparently and as close to the action as possible
- *Partnering*: We work with stakeholders to increase capacity, teamwork, outputs, and impact
- *Capacity*: We have the people, tools, skills, knowledge, and work culture we need to achieve outputs and impact

Process Excellence

Continuously Improving

We are accountable, correct problems quickly, and apply learning

- *Accountability: We own, measure, report, review, and act on process performance, outputs, impact and feedback*
- *Correcting Problems Quickly: We make problems visible, promptly investigate them, and address root causes*
- *Learning: We reflect, and proactively develop, apply and share learning, best practices, improvements and innovation*

Process Excellence

Effective: Our processes are reliable and provide relief

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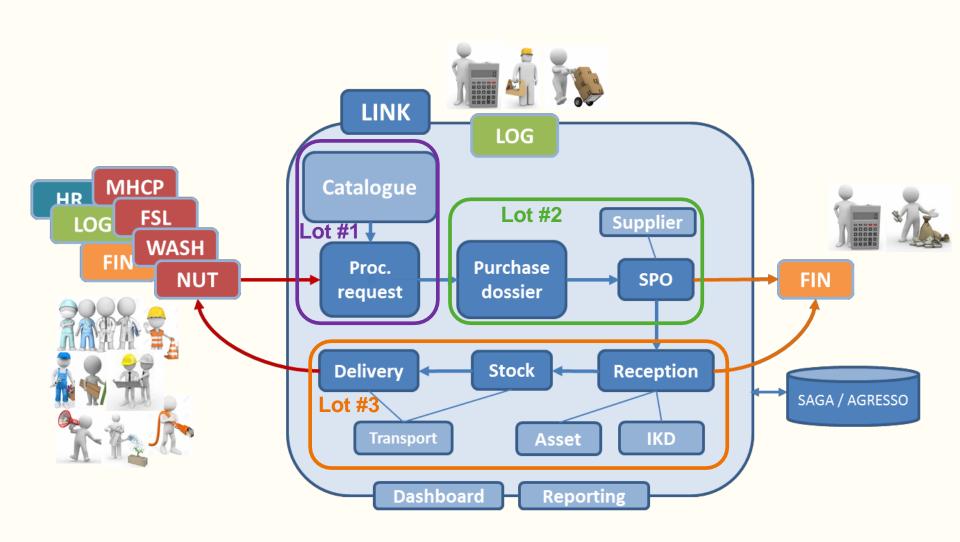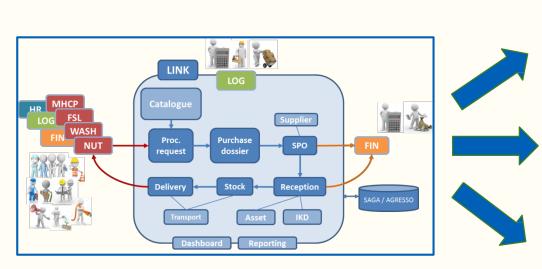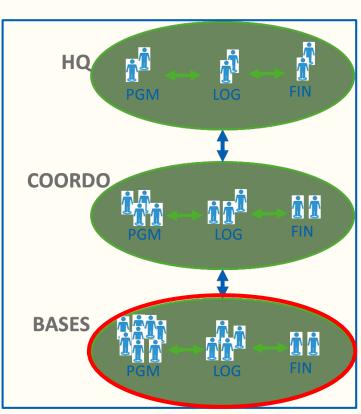
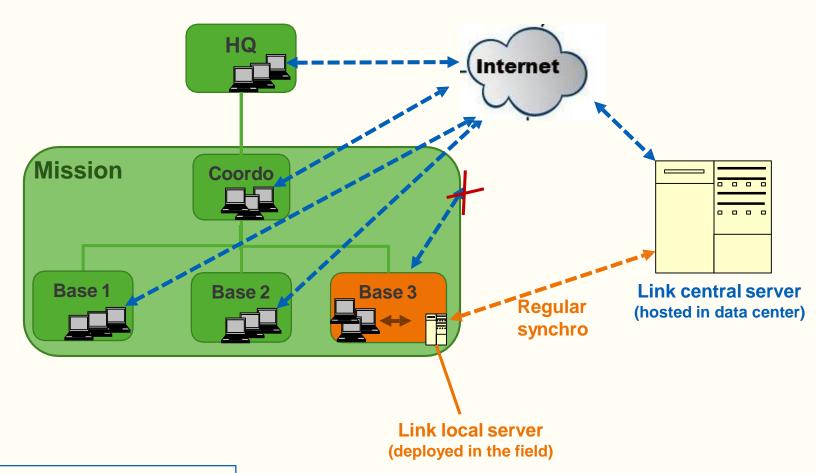# SCOPE AND OBJECTIVES

© ACTION CONTRE LA FAIM

- **Deployed in the field (Capital + Bases) + HQs**

- **All users work on the same view in real time**

- **Priority given to the Base level (*80% of purchases*)**

HQ

Internet

Mission

Coordo

Base 1

Base 2

Base 3

Regular synchro

Link central server (hosted in data center)

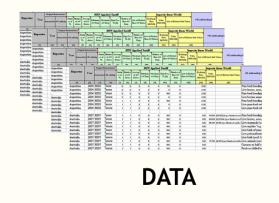**Link local server (deployed in the field)**

Direct access to the central server **via internet** connection

Synchronization of data and doc between **local server** and central server, via data extract and upload

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DATA

+

ALL
DOCS

+

ALL
VALIDATIONS

1

All necessary data in the system
Tracking from order to delivery
Coherence with other IS (finance)

2

All required documents uploaded in the system attached to related data

3

All required validations collected in the system
Controlled workflow

- **Field data collection tool**

- **Fitting with humanitarian logistics processes**

- **Procedure oriented**

Expected added values

LOG (field)

- Data and doc management
- Validation workflow
- Automatic follow-up chart
- Automatic control and warning
- Error and fraud reduction
- Purchase history for PPP and local strategy

LOG MANAGEMENT

- Mission monitoring and support
- Control data & docs (real time)
- Log performance measuring
- Remote management
- Consolidated reporting & figures

LINK SCM

PROGRAMS

- Technical needs' expression (catalogue)
- Request progress status
- Access to purchase history for program design

FINANCE

- Log and Finance IS bridge
- Automatic control of amount
- Invoice follow-up
- Log-Finance data reconciliation
- Automatic stock value
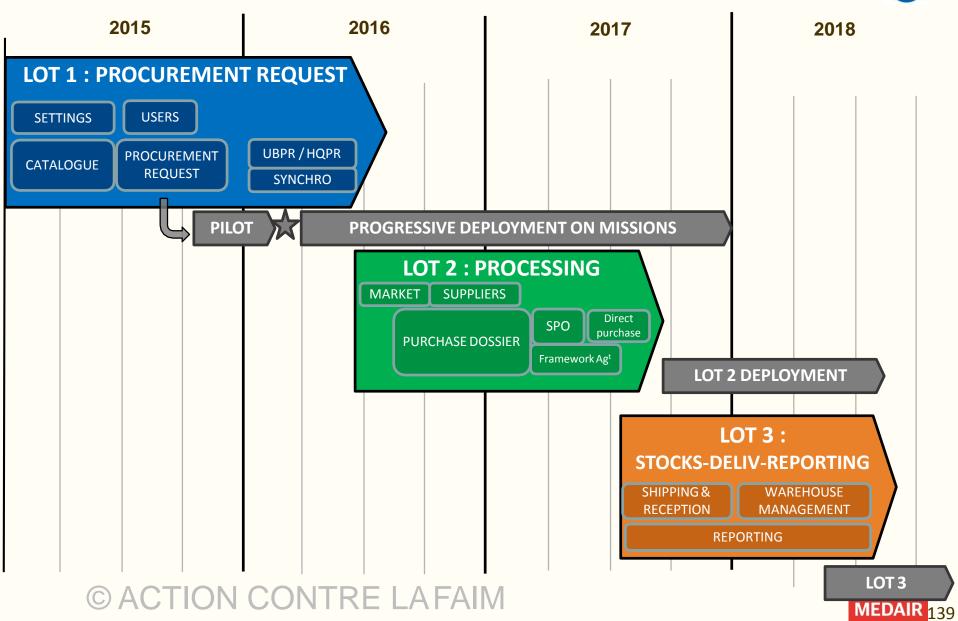
AUDIT & DONORS

- Automatic reporting
- Audit preparation
- Doc centralization & securisation
- Procedure compliance
- Reduction of ineligible exp

MACRO PLANNING

DEPLOYMENT ON MISSIONS

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✓ **Progressive**

- o **Mission by mission**
- o **Log team first, then Finance and Programs**
- o **Phased by functional lot**

✓ **Managed by Logs**

- o **1 full time Coordinator (HQ) (organization, support preparation…)**
- o **Initial training by Link coordinator + HQ Log advisors**
- o **Continuous training by Field Log managers**
- o **Webinars**

✓ **Continuous support**

- o **User guides and videos online**
- o **1st level support by Log managers + HQ Log advisors**
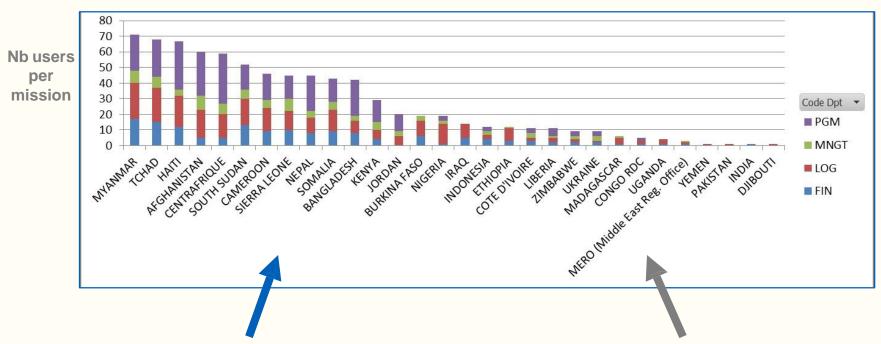- o **2nd level support by LINK support team (functional + IS)**

- ✓ **2 HQs (ACF-FR, ACF-US), 1 Regional office (ME)**

- ✓ **30 countries**

- ✓ **92 field sites (30 Coordinations + 62 bases)**

- ✓ **10 bases working on local servers**

- ✓ **790 field users + 90 HQ users**

30 countries - 790 field users

Nb users per mission

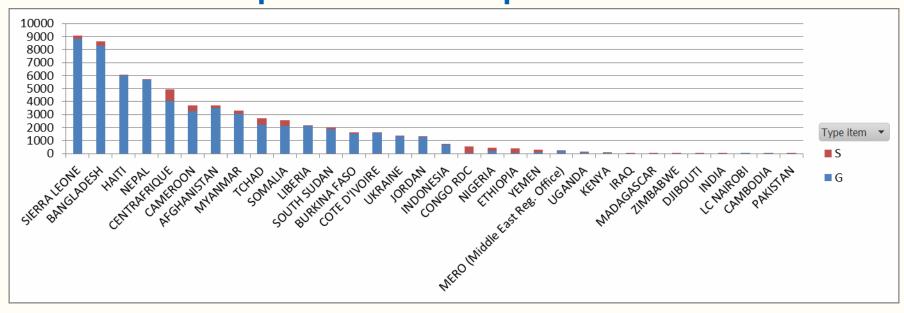Code Dpt ▼
- PGM
- MNGT
- LOG
- FIN

**18 countries fully deployed (Capital & bases) using all lot#1 features
Lot#2 started in 6 countries**

12 countries deployed in Capital only for HQPR
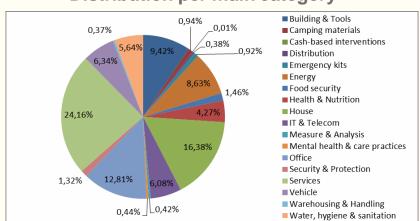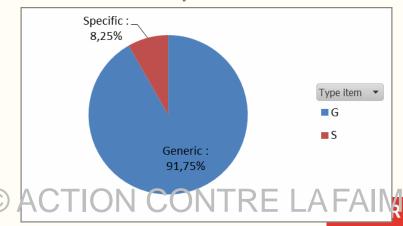
65 000 lines of procurement requests

Distribution per main category

- Building & Tools
- Camping materials
- Cash-based interventions
- Distribution
- Emergency kits
- Energy
- Food security
- Health & Nutrition
- House
- IT & Telecom
- Measure & Analysis
- Mental health & care practices
- Office
- Security & Protection
- Services
- Vehicle
- Warehousing & Handling
- Water, hygiene & sanitation

Generic/Specific items?

Specific : 8,25%

Generic : 91,75%

144

Global satisfaction

- 🟩 Absolutely yes !–
- 🟩 Pretty much, yes–
- 🟥 Not really–
- 🟥 Not at all !–
- 🟦 Don't know / No opinion–

35%
40%
13%
6%
6%

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FOCUS CATALOGUE

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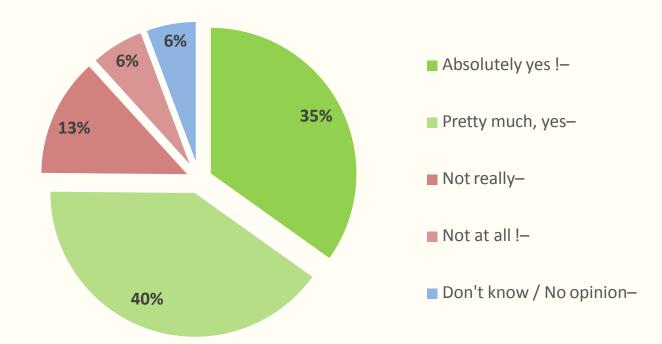
✓ **1 unique catalogue shared by all missions**

- o All missions use the same references
- o *To be dev : possibility to customize some additional info per mission*

✓ **1 catalogue manager at HQ**

- o Item sheet maintenance in link with supply department
- o Coordination with all technical sectors
- o Integration of change requests
- o Customization by HQ

- ✓ **+/- 2500 products/services as of today**

✓ **Combination of generic and specific items**

✓ **No price management**

- • **… but access to purchase history and framework agreement**

ITEM CONCEPT : GENERIC VS SPECIFIC

Generic item

Ex: a table

Specifications to fill in by requester:
- **Lenght/width ***
- **Height *** *(0,5m / 0,8m / 1m)*
- **Shape *** *(rectangle / square / round / oval)*
- **Nb of feets** *(3 / 4 / 6 / 8)*
- **Material**
- **Nb of places *** *(numeric)*
- **Usage ***
- **Chair ? *** *(with / without)*

Specific item

Ex: a 10 places meeting table

Specifications :
- **Lenght/width : 3m x 1,20m**
- **Height : 0,8m**
- **Shape : rectangular**
- **Nb of feets : 6**
- **Material : wood**
- **Nb of places : 10**
- **Usage : meeting**
- **Without chair**
- **Indicative price : 220 €**
- **Brand : xxx**
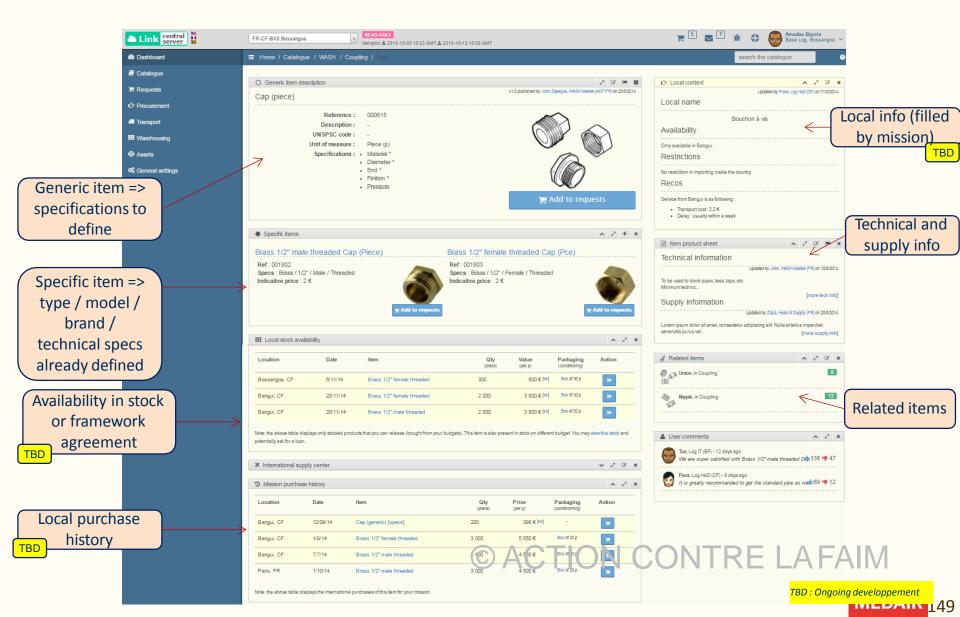
CATALOGUE ITEM SHEET

Generic item => specifications to define

Specific item => type / model / brand / technical specs already defined

Availability in stock or framework agreement
TBD

Local purchase history
TBD

Local info (filled by mission)
TBD

Technical and supply info

Related items

TBD : Ongoing developpement

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NEXT STEPS

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Complete Lot#3 developpement

- ✓ Shipping, reception and delivery (jan 2018)
- ✓ Log reporting (feb 2018)
- ✓ Warehouse management ➔ mid 2018
  (including QR Code and offline mode for warehouse)

Several additionnal features already identified

- ✓ Full integration with finance IS
- ✓ Procurement plan
- ✓ Advanced reporting (donors)
- ✓ Emergency mode
- ✓ E-learning module
- ✓ …

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Ongoing feasibility study to share the solution

- ✓ Define the best IS architecture
- ✓ Estimate the developments required to adapt the Link solution
- ➔ Expected results in dec. 2017

Actions 2018

- ➔ InterNGOs platform project funding
- ➔ Work with each partner on adjustment, integration and deployment

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Any questions ?

Contact the Link Project team in Paris !

Head of Project :   **Pascal GUENICHON**
                         pguenichon@actioncontrelafaim.org

Log IS Director :   **Jean-Baptiste LAMARCHE**
                         jblamarche@actioncontrelafaim.org

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About what we do

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If the supply chain is unefficient, broken, weak or unsupported, it systematically affects the quality of our programing and response and utlimately the service to our beneficaries.

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makes it or breaks it

When supply chain is efficient, beneficiaries are better

60-80 % of the humanitarian cost

Supply Chain

No products, no project

Save life no in emergency (time & quality of the product)

Bigger spending in NGOs

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The role and impact of humanitarian logistics (supply chain) is often not understood or not recognized for what it actually is within the humanitarian sector. This usually leads to a lack of involvement & influence in key strategic decision-making.

One of the direct consequences of that reality is that logistics tends to be under-represented and, therefore, **unable to play the role it should in the global humanitarian sphere; despite its critical involvement in delivering humanitarian relief.**

More than having humanitarian logistics understood and recognized**, we want it to position itself as an effective key player & partner in the NGO/inter-agency sector where it can influence strategic decisions & actively improve humanitarian responses around the globe.**

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Session Objective

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The objective of this white paper is to enable logistics to intervene and be involved upstream in the decision & allocation of funds process, the high benefit for NGOs that would come from placing Logistic more at the center.

Logistics must be at the center of the funding & project process as a key player to change the game:

We'll develop in the market session the model that should enable logistics to allow more capacity and resources to operate.

Model I today: Collect & Use the money VS.

Model II tomorrow: Collect & Optimize the money

Session Objective

Starting from the observation that the supply chain is a major issue for a humanitarian response **(60-80% of funding)** and that we operate in unstable environments, where infrastructure is poorly functioning and where the issues of access to populations are increasingly persistent, **logistics is a key success factor** for the implementation of emergency assistance Regardless of the context, logistics has as well **a major role in structuring humanitarian responses** and must be able to ensure continuity of supplies of aid to affected populations

This is possible if logistics is **systematically involved in the contextual analysis and has sufficient power to influence the structuring of responses.**

We have the ambition to **transform the vision / perception of the added value that logistics can bring to the humanitarian sector in order to modify the funding gap paradigm.**
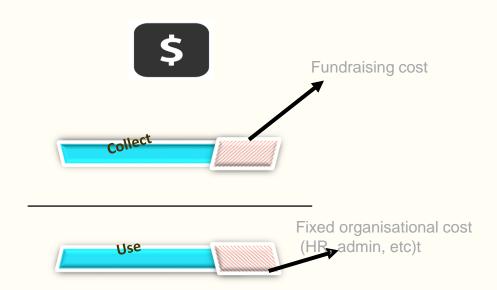We think to question the financial calculation of the needs by considering the opportunities of rationalization of the costs that the logistics bring which will ultimately, maximize the impact with the vulnerable populations.

This is possible if the logistics is mandated on the search for value for money (and not only on donors accountability).

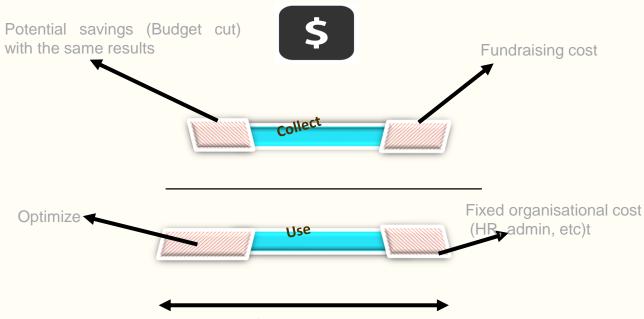**This is possible if logistics is considered a strategic player in the humanitarian sector.**

Model 1

Collect & Use

Fundraising cost

Collect

Fixed organisational cost
(HR, admin, etc)t

Use

Model 2

Collect & Optimize

Potential savings (Budget cut) with the same results

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Fundraising cost

Collect

Optimize

Use

Fixed organisational cost (HR, admin, etc)t

Project incremental + investment year after year can do more with the same initial investment

Model 2

Collect & Optimize

"Impact optimization", about striving at impacting more year on year with the same budget envelop. This can be done only if we intentionally strive at being more cost efficient, which requires a strategic approach and to consider some initial investments that will help doing more with less in the mid-long term

COFFEE BREAK

Session will re-start at 16:00

Market Place

DINNER

Time: 19h30
Location:
La Calabre
Route du Vallon 7
1854 Leysin