

Modularidad del proceso, Marco del proceso, y capacidad de respuesta de la cadena de suministro

Presentación



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Para y cambia: modularidad del proceso

- » Cambiar el proceso normal por otro que se adapte mejor al cambio de contexto
Ejemplo: de proceso estándar a proceso de emergencia o proceso estándar alternativo
- » Cambiar solo las partes del proceso que deben cambiar
- » Similar a cambiar las piezas de LEGO o los módulos de un coche



¿Funciona?

- » Respuesta de MSF a la Covid-19
 - » 155 misiones en 77 países
 - » Escasez de suministros internacionales + complejidad del transporte
 - » Actividades existentes + ampliación (Covid-19) + nuevas directrices
 - » Nuestro estudio:
 - » No aumenta la escasez
 - » Plazos de entrega estables
- "ninguna actividad [...] se puso en stand-by [o] se paró porque no tuviéramos el material"*
- "realmente nos las arreglamos, y de hecho nos las arreglamos bastante bien"*
- » Secreto: modularidad del proceso



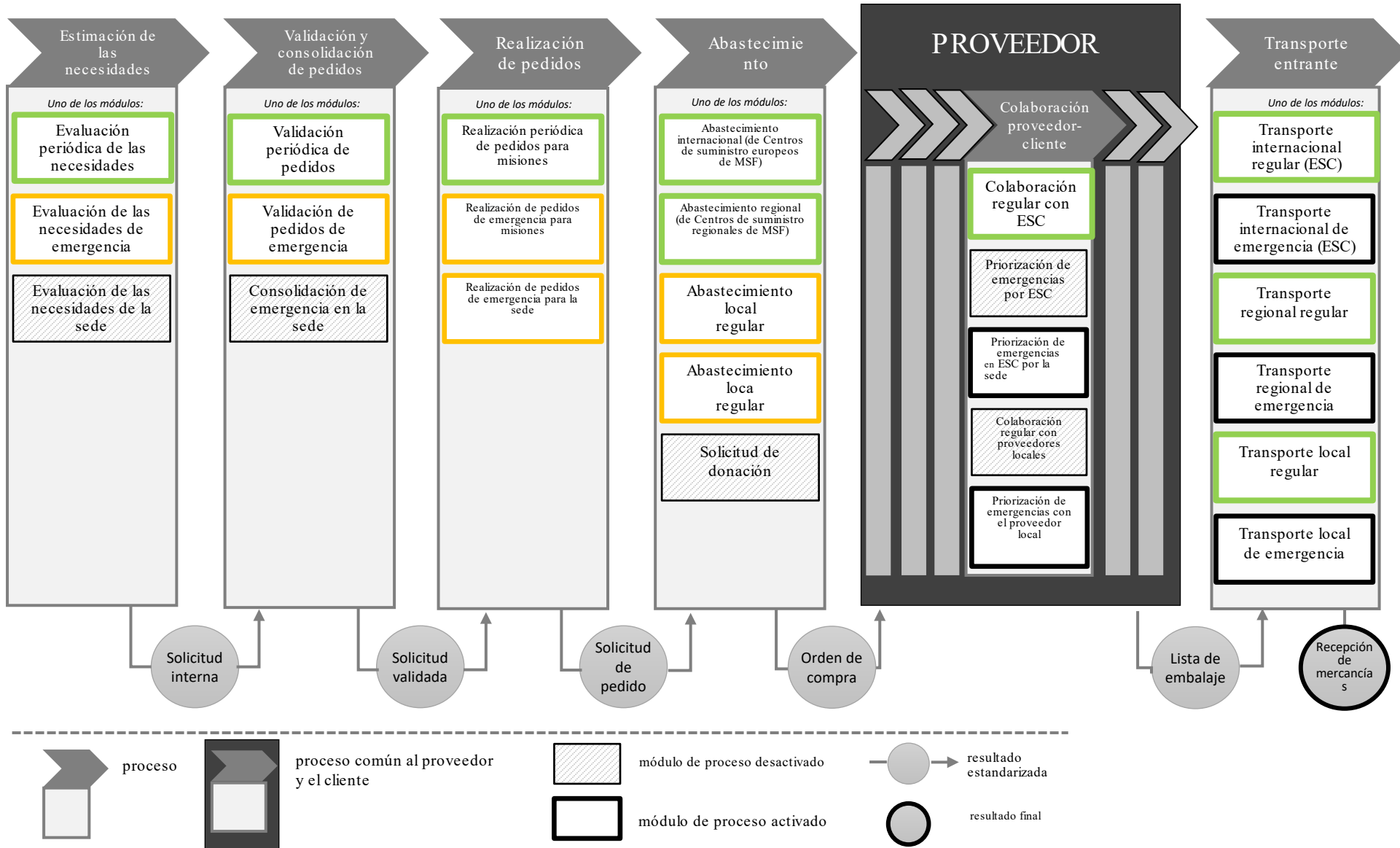
Arquitectura modular de procesos de MSF



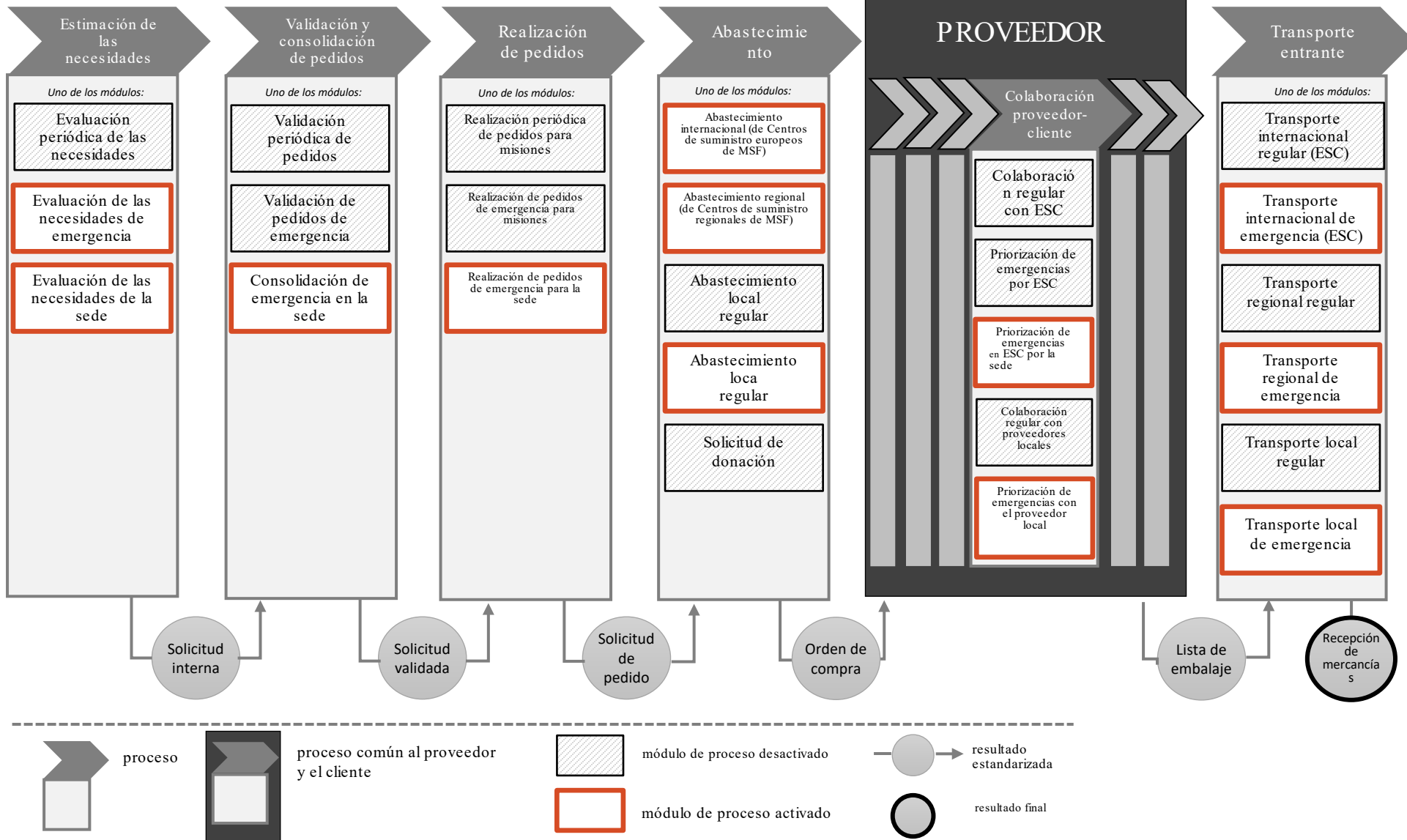
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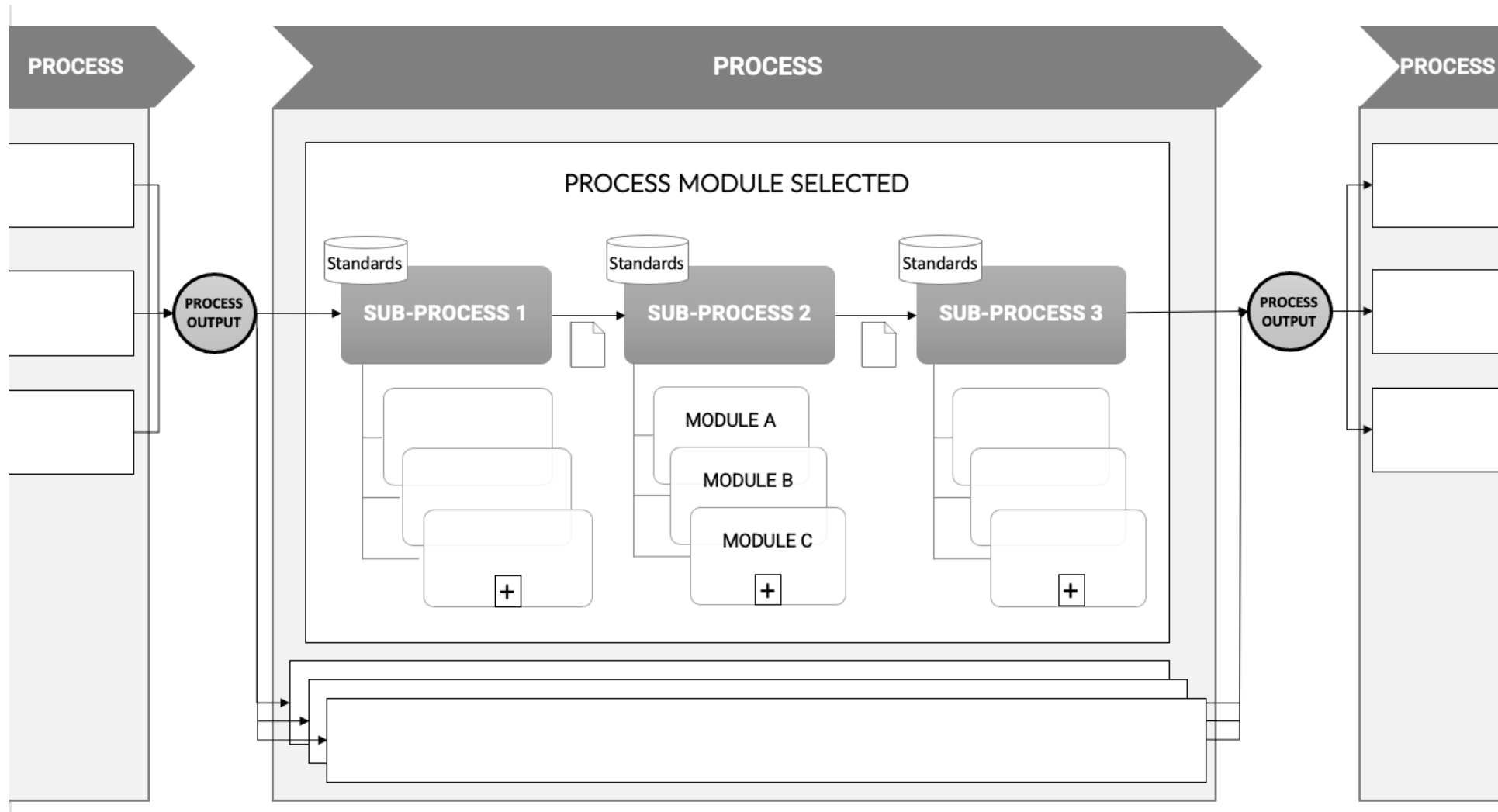
Antes de la primera oleada de Covid-19



Durante la primera oleada de Covid-19

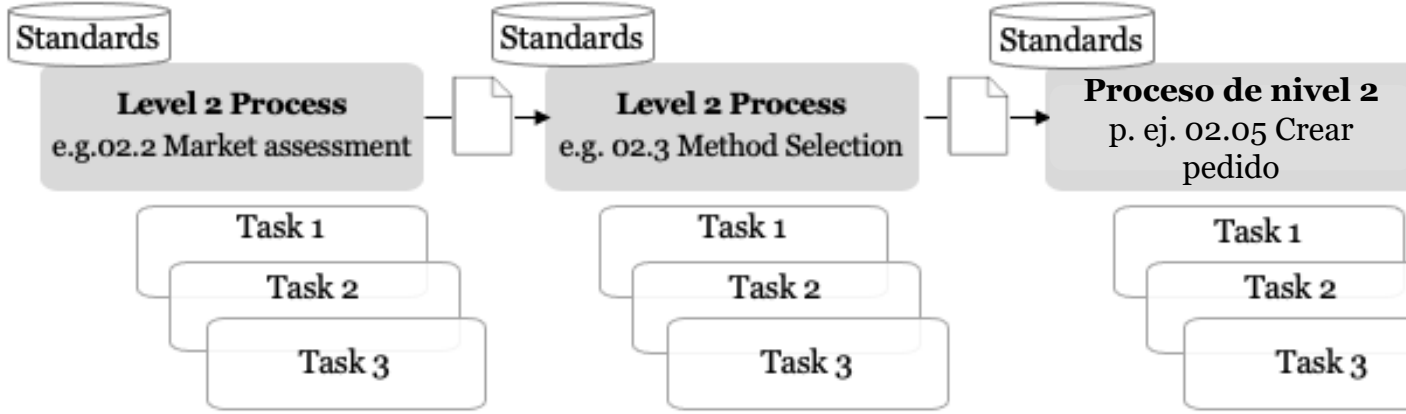


La modularidad de los procesos también existe a nivel de subprocessos

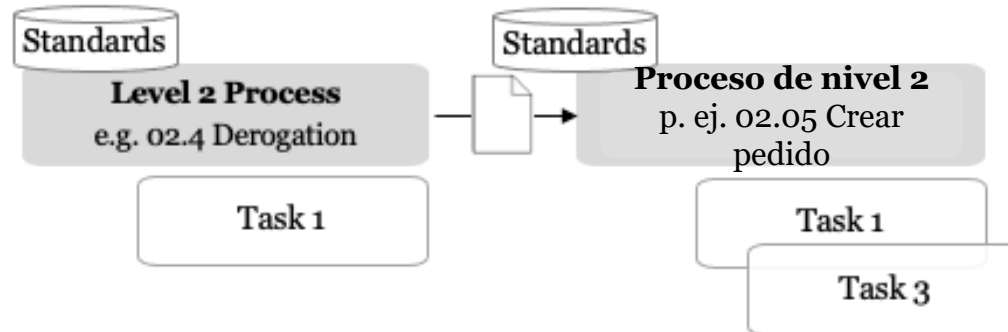


Level 1 Process e.g.: 02a. Procurement of Goods and Services

Process module for context A – e.g.: Regular Context



Process module for context Z – e.g.: Dire emergency



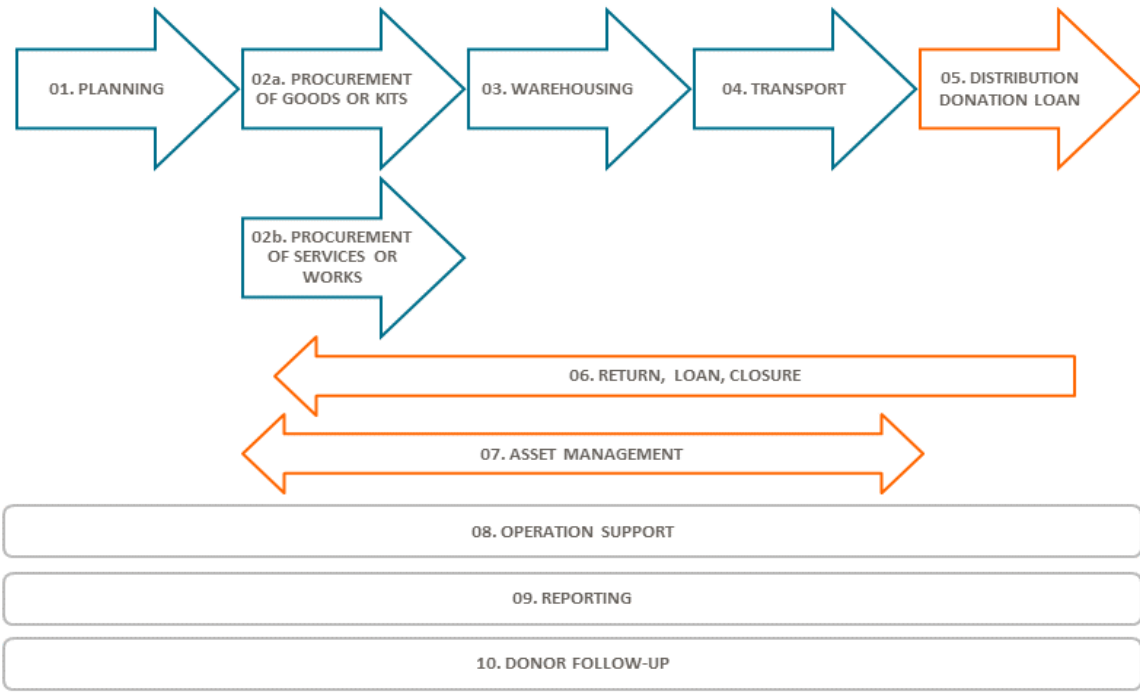
Process module for context B

¿Por qué funciona?

- » 1. Los módulos de procesos pueden diseñarse para reducir los plazos de entrega
omitiendo tareas menos esenciales y que consumen mucho tiempo
- » 2. Los módulos pueden diseñarse para mitigar el riesgo de retrasos graves
aliviando los posibles cuellos de botella (internos o externos)
- » 3. Los módulos de procesos pueden diseñarse para
facilitar la priorización, asignación y racionamiento de recursos escasos en función de las necesidades



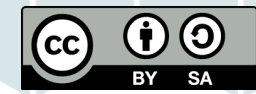
Frontline Humanitarian Logistics – Process Framework



Estándar de datos logísticos de primera línea y guía de uso

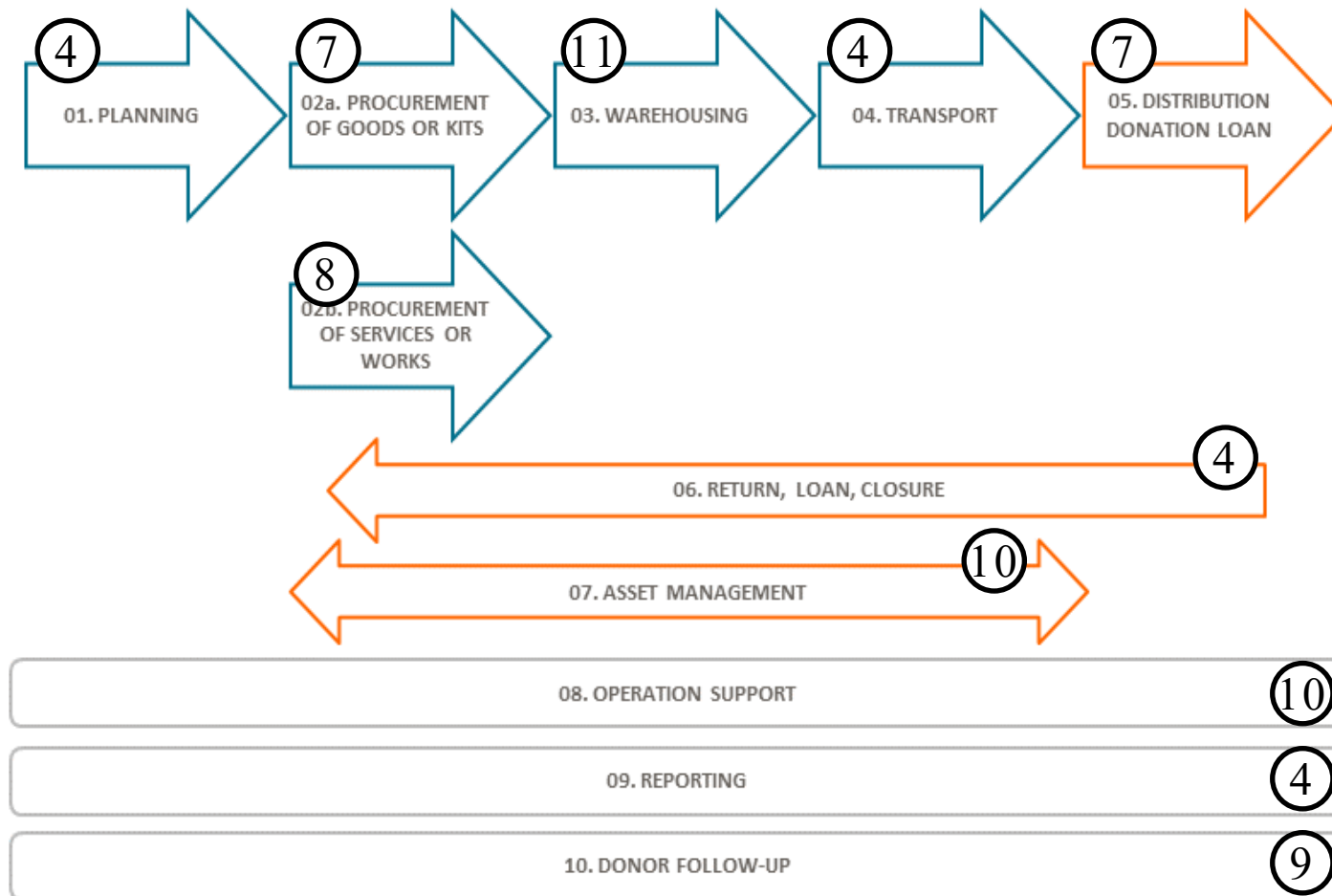
Estándar de datos FHL

Tesaurus



Marco de procesos: 10 Nivel 1 -> 80 Nivel 2

Frontline Humanitarian Logistics – Process Framework



Example of framework structure	
Level in framework	Title of framework Item
Process Level 1 (PL1):	02 Procurement
Process Level 2 (PL2):	02.1. Procurement planning of goods and kits
Process Level 2 (PL2):	02.2. Markets assessment of goods and kits
Process Level 2 (PL2):	02.3. Procurement method selection
Process Level 2 (PL2):	02.4. Procurement derogation validation
Process Level 2 (PL2):	02.5. Purchase Order management for goods and kits
Process Level 2 (PL2):	02.6. Invoice matching and payment
Process Level 2 (PL2):	02.7. Donation (Request for in kind donation)



Nivel 2 - Estructura

FHL Process Framework				
Process ID	Process Level 1	Process Level 2	Description	
P0200	2 Procurement		The processes associated with ordering, delivery, receipt and transfer of a. goods or kits b. services or work	
P0201	2a Procurement of goods	02.1. Procurement planning of goods and kits	The process associated with tactical management of procurement activities for goods and kits, including among others but not exclusively, supplier management, contract follow-up, market assessment update schedules, procurement schedule, pipeline monitoring and coordination with Finance.	
P0202	2a Procurement of goods	02.2. Markets assessment of goods and kits	The process associated with assessing available supply sources for goods and kits in one or more markets, including among others but not exclusively, supplier information, quality assurance, framework agreements and negotiated price list.	
P0203	2a Procurement of goods	02.3. Procurement method selection	The process associated with selecting and conducting the appropriate procurement method in line with procurement threshold for goods and kits, including among others but not exclusively, direct purchase, one quote, waivers, request for quotations, tender process and Comparative Bid Analysis.	
P0204	2a Procurement of goods	02.4. Procurement derogation validation	The process associated with validating and recording a procurement derogation process for goods and kits, including among others but not exclusively, proof of supplier monopoly, justification of lead time urgency, headquarter electronic validation, and local regulations derogation.	
P0205	2a Procurement of goods	02.5. Purchase Order management for goods and kits	The process associated with receiving, creating, validating and issuing a purchase order for goods and kits, including among others but not exclusively, follow-up with suppliers, and the update of the PO upon reception in the warehouse.	
P0206	2a Procurement of goods	02.6. Invoice matching and payment	The process associated with processing and validating an invoice for goods or kits, including among others but not exclusively, payment proceeding, PO closure and invoice closure.	

Un marco adaptable a todos:

Clasificación de procesos genéricos - a medida - específicos - únicos



Genéricos: no es necesaria ninguna adaptación, o muy poca, para adaptarse al sector humanitario,

A medida: similitudes entre sectores que necesitaban algunos ajustes básicos para adaptarse al sector humanitario,

Específicos: procesos comunes en todas las IHO que no existen en la mayoría de los demás sectores

Únicos: procesos que solo existen en una minoría de OHI pero que son lo suficientemente importantes como

para estar representados

80 subprocesos:

- **25 eran genéricos**
- **15 a medida**
- **18 específicos**
- **22 únicos.**

	Genérico	A medida	Específico	Único	Total
01 Planificación de suministros y logística	0	4	0	0	4
02a Adquisición de bienes o kits	3	2	1	1	7
02b Contratación de servicios u obras	4	2	1	1	8
03 Almacenamiento	7	1	0	3	11
04 Transporte	3	0	0	1	4
Macroprocesos totales "de tipo comercial"	17	9	2	6	34
05 Distribución donación préstamo	0	0	3	4	7
06 Devolución cierre de préstamo	2		3	0	5
07 Activos	0	0	8	2	10
Macroprocesos totales "específicamente humanitarios"	2	0	14	6	22
08 Apoyo	5	3	2	0	10
09 Presentación de informes	1	3	0	0	4
10 Seguimiento de los donantes	0	0	0	10	10
Macroprocesos totales de "facilitadores"	6	6	2	10	24
Total	25	15	18	22	80

En la práctica:

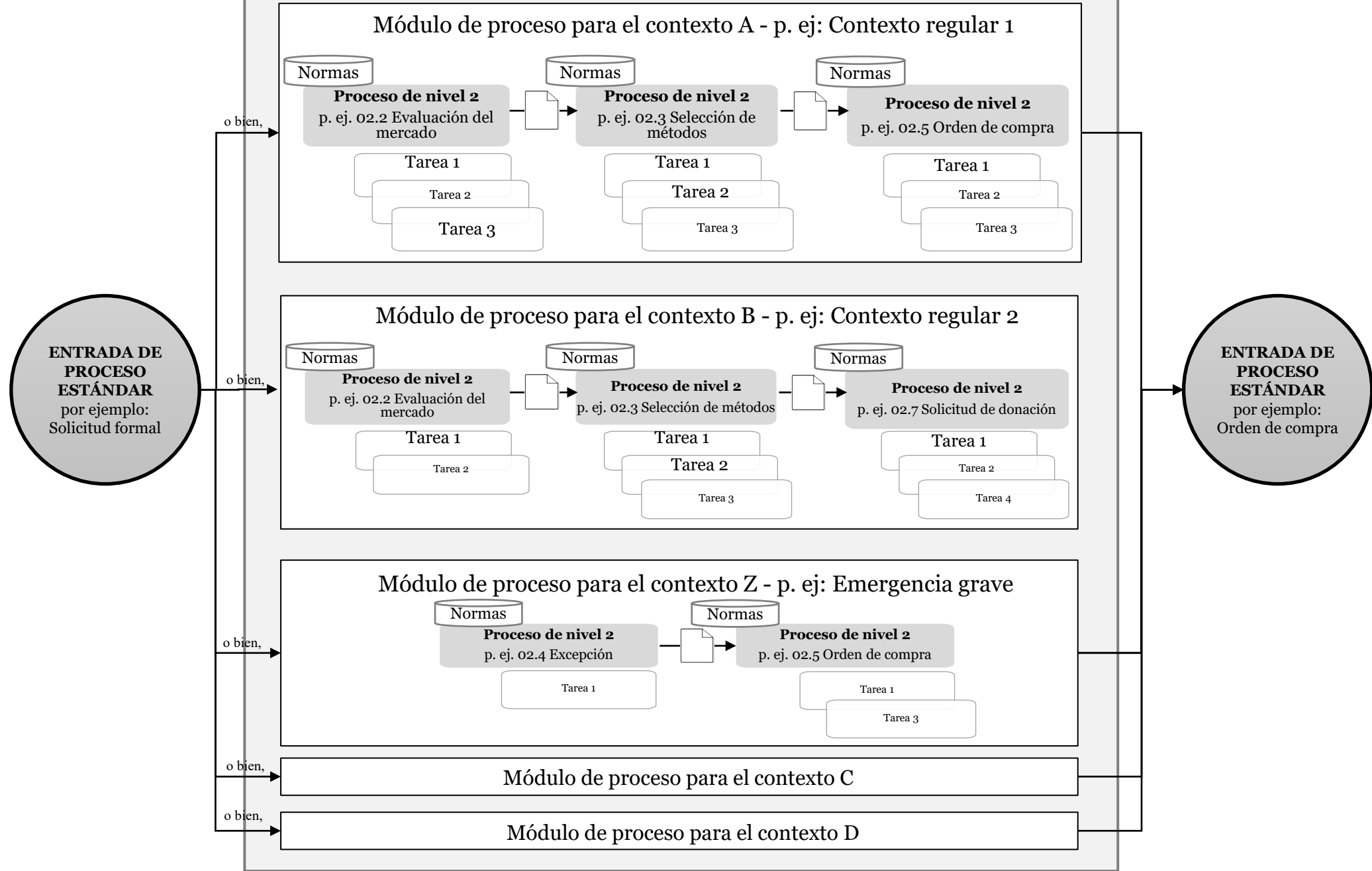
02a Procurement of goods or kits

Level 2 Processes: 3/7 Generic - 2/7 Tailored – 1/7 Specific 1/7 Unique

Generic	02.03 Procurement method selection	“If you want to help somebody and you can give them an NFI-kit or you can give them some cash vouchers or you can build a house for them. Right? First one is goods. The second one is the service and the third one is works.” It1_ParticpantE
	02.05 Purchase Order management for goods or kits	“Procurement is procurement, it only makes minor difference when we talk about items details.” It2_ParticipantS
	02.06 Invoice matching and payment	“I see procurement as procurement, it doesn’t matter what you buy, it should be the same principle, same modalities, same type of data that anywhere else.” It2_ParticipantJ
Tailored	02.01 Procurement planning of goods or kits	“Our purchases are potentially much, much more wide reaching than most commercial organizations. Like tomorrow I might build a school. The next day I’m buying a thousand tons of wheat flour, and the next day I’m buying a generator, and tomorrow I’m purchasing the services of someone to train on market surveys.” It3_ParticipantL
	02.02 Markets assessment of goods or kits	
Specific	02.04 Procurement derogation validation	“There is the national market, the regional market, the international market, which all have their own supply chain. And I think we create problems for ourselves if we imagine there is but one market, it is always, to my mind, always markets, which need different sorts of assessment.” It3_ParticipantE “We need to look at derogations and how to handle those.” It2_ParticipantJ “I was going to say that we need to look at derogations and how to handle those.”
Unique	02.07 Donation (Request for in kind donation)	“Because donations required pro-forma invoice. It’s a declaration that the goods are for humanitarian purposes, identify the consignee sites, that there is no financial transaction that could be sold before a free donation in a humanitarian response operation. And when you’re looking to clear through customs, they would look for that documentation.” It3_ParticipantR

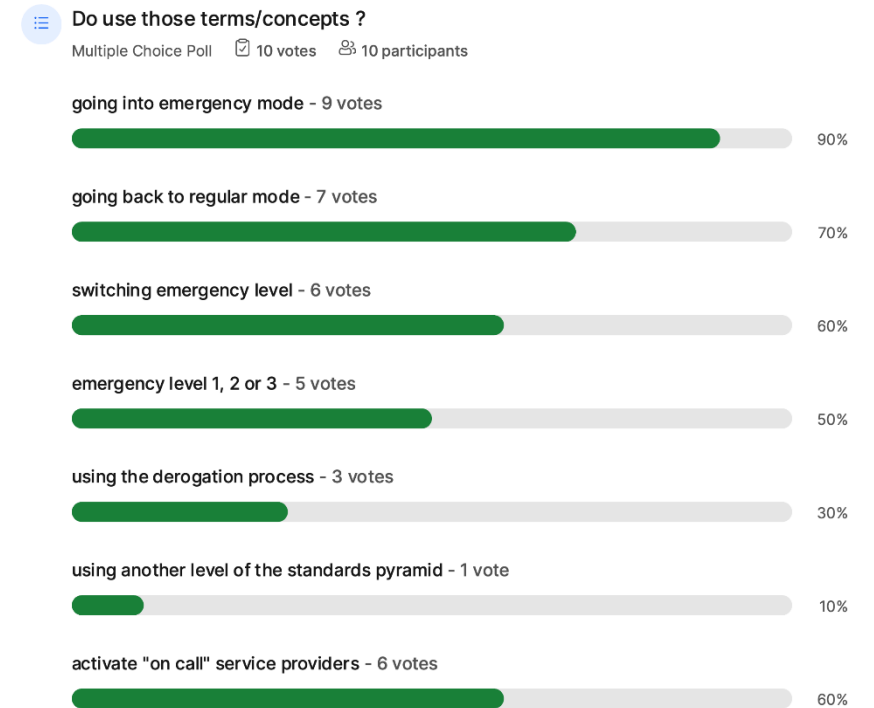


Proceso de nivel 1
por ejemplo: 02a. Adquisición de bienes y servicios



Investigar el concepto en todas las IHO

- » Todas las organizaciones tienen alguna forma de modularidad bajo una terminología diferente
- "entrando en modo de emergencia"
 - "volviendo al modo normal"
 - "cambio de nivel de emergencia"
 - "nivel de emergencia 1, 2 o 3"
 - "utilizando el proceso de excepción"
 - "utilizando otro nivel de la pirámide de estándares"
 - activación de proveedores de servicios "de guardia"



Investigar el concepto en todas las IHO



- » Entrevistas a 28 altos directivos de HSC con experiencia de trabajo en 27 organizaciones humanitarias internacionales (OHI)
- » Mesa redonda en HNPW 2023
- » OHI representadas:

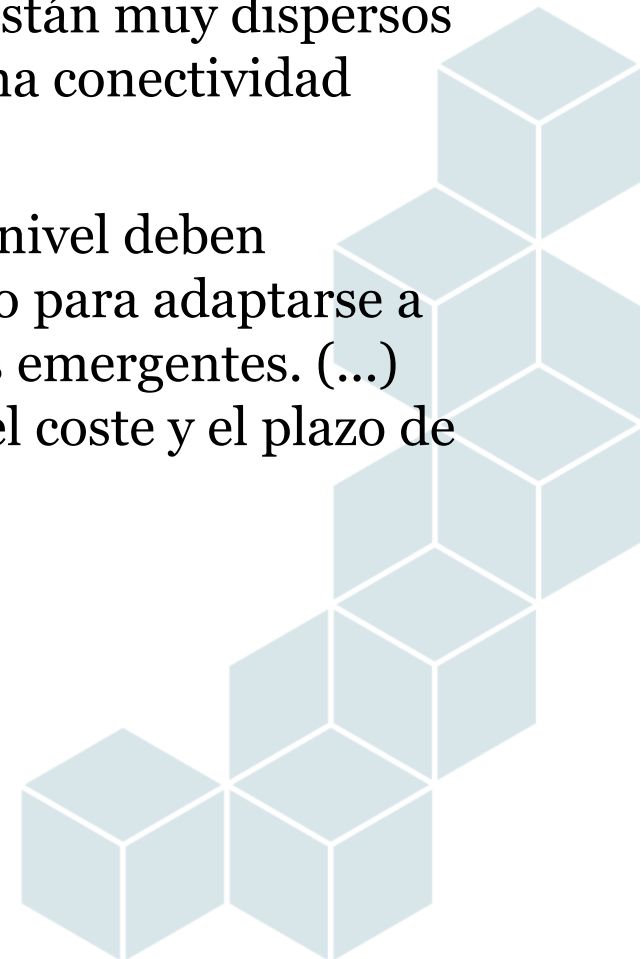


Próximos pasos: cadenas de suministro modulares



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- » Una cadena de suministro modular es aquella en la que sus miembros están muy dispersos geográfica y culturalmente, con pocos lazos organizativos estrechos y una conectividad electrónica modesta (Fine, 1998, p. 136).
- » Como resultado, muchos de los que podrían ser proveedores de primer nivel deben posicionarse ahora como proveedores de segundo nivel de valor añadido para adaptarse a las características más flexibles de las cadenas de suministro modulares emergentes. (...) El diseño modular suele basarse en consideraciones económicas como el coste y el plazo de comercialización. (Fine 2005)
- » Plug and play entre las OHI para la colaboración
- » Plug and play entre las OHI y los proveedores



¿Quiere participar?

- » Buscamos constantemente socios interesados en continuar nuestra investigación
 - » Organizaciones: Posibilidad de aumentar la capacidad de respuesta de su SC
 - » Redes: Posibilidad de apoyar la puesta en común, la resiliencia y la agilidad de sus SC
- » Estudios actuales:
 - » Aumento y formalización de la modularidad de los procesos en MSF
 - » Evaluación de la conformidad de los distintos marcos de la SC con la FHL



Publicaciones académicas sobre el tema



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SPECIAL ISSUE ARTICLE



Process modularity, supply chain responsiveness, and moderators: The Médecins Sans Frontières response to the Covid-19 pandemic

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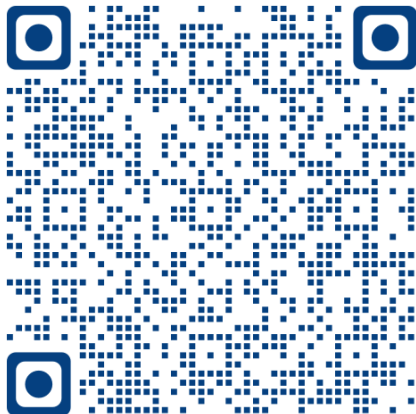
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Abstract

The unprecedented scale of the Covid-19 pandemic has been a challenge for health supply chains around the world. Many international humanitarian organizations have had to ensure the continuity of their already complex development programs, while addressing their supply chain disruptions linked to the pandemic. Process modularity has frequently been advocated as a strategy to mitigate such disruptions, although empirical evidence regarding its impact on supply chain responsiveness and what moderates this impact is scarce. This exploratory research uses supply chain data analysis, qualitative content analysis, interviews, and a three-round Delphi study to investigate how Doctors without Borders (Médecins Sans Frontières; MSF) and its 151 missions employed process modularity during the Covid-19 pandemic. Our results show that despite severe disruptions, process modularity—based on a modular architecture, interfaces, and standards—has helped MSF maintain supply chain responsiveness. Specifically, it (1) enabled time-consuming, nonessential tasks to be skipped, (2) relieved internal and external bottlenecks, and (3) facilitated better allocation and



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Toward a common humanitarian supply chain process model: the Frontline Humanitarian Logistics Initiative

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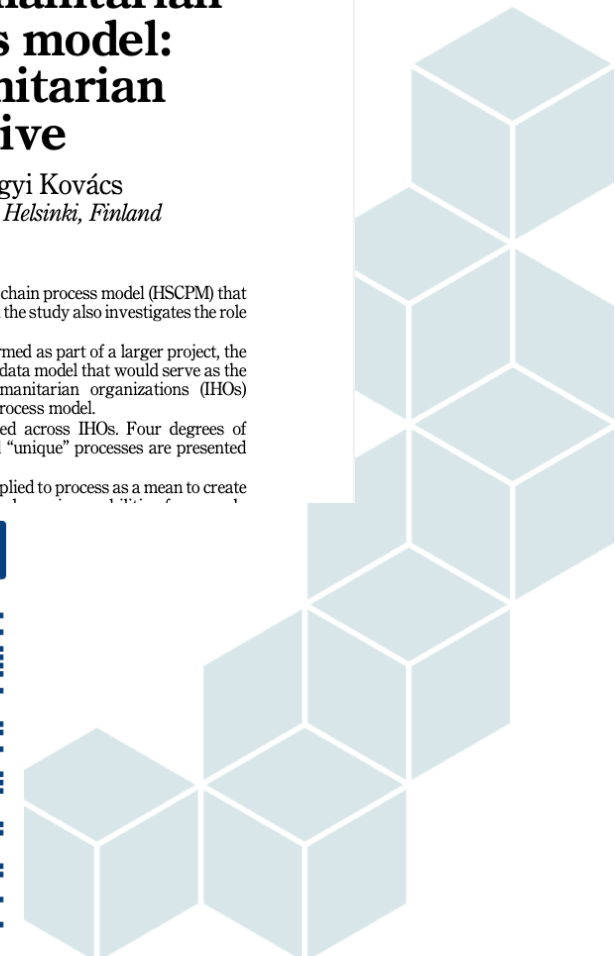
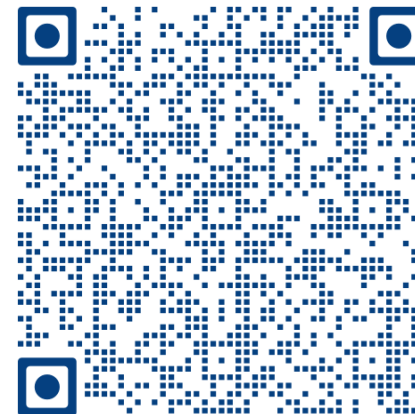
Abstract

Purpose – This study focuses to develop a common humanitarian supply chain process model (HSCPM) that enables effective enterprise resource planning (ERP) systems for NGOs, and the study also investigates the role of modularity as a dynamic capability that supports creating such model.

Design/methodology/approach – A multifocus group study was performed as part of a larger project, the Frontline Humanitarian Logistics Initiative, aiming to establish a common data model that would serve as the backbone of humanitarian ERP systems. Fourteen international humanitarian organizations (IHOs) participated in the process, reaching a consensus on the structure of the process model.

Findings – An HSCPM was proposed based on the consensus reached across IHOs. Four degrees of customization differentiating between “generic,” “tailored,” “specific,” and “unique” processes are presented and discussed.

Research limitations/implications – The findings show modularity applied to process as a mean to create



Gracias por acompañarnos hoy

El Instituto HUMLOG busca continuamente la colaboración con investigadores y profesionales interesados en el ámbito de la logística humanitaria y la gestión de la cadena de suministro, ¡trabajamos mejor juntos!

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