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## Portugal Impacts of Global Standards in Healthcare Value Chain

Results and Recommendations

Study AM&A for GS1 Portugal

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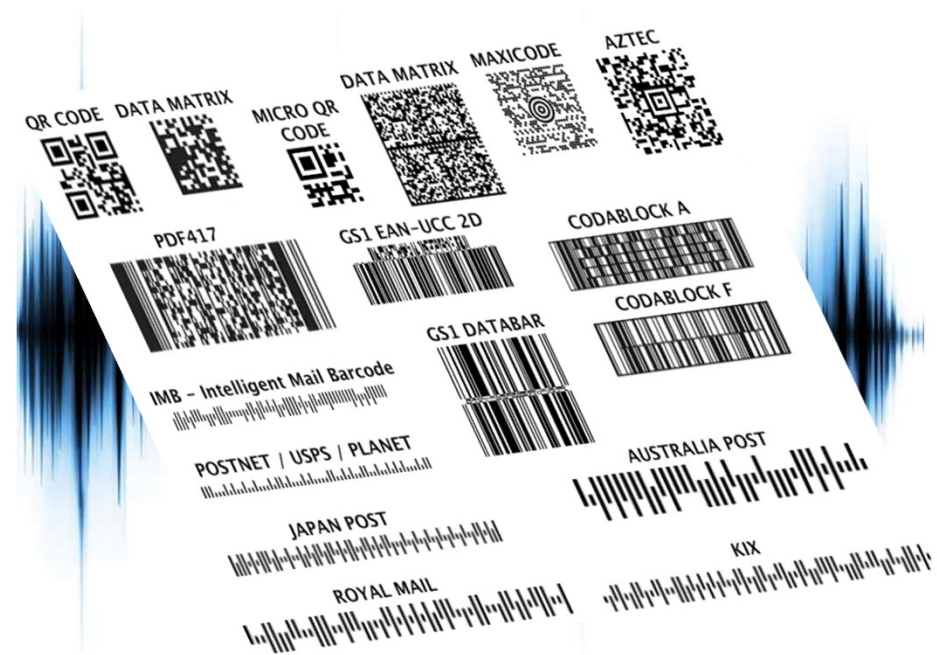
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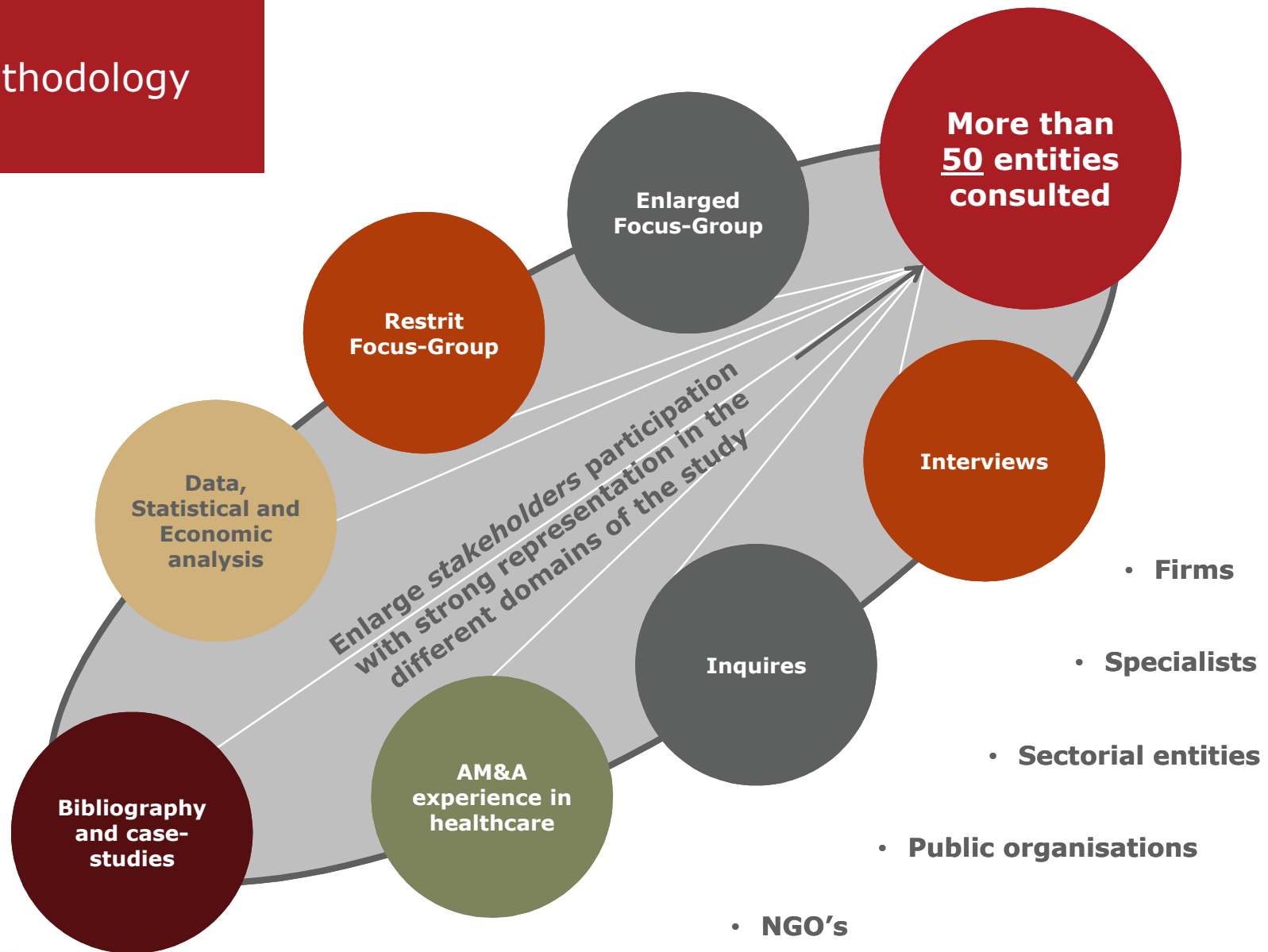
# Portugal Impacts of Global Standards in Healthcare Value Chain

# 1. Objectives

- **Studying** the healthcare value chain, in the Portugal case, from the perspective of adopting global standards, taking in account the global report developed by McKinsey in 2012 (*"Strength in unity: The promise of global standards in healthcare"*).
- **Analyse the potential benefits** of an effective integration of the healthcare value chain in Portugal through the adoption of an unique codification compatible with global standards. This exercise required the definition of the effects and impacts considered, but also their measuring by producing estimations of the potential global (macro effects) net savings (cost reductions and efficiency gains net of spending and investment incurred), as well for each relevant player of the healthcare value chain (micro and sectorial effects) – pharmaceutical industry, medical devices, distributors and wholesalers, retail pharmacies and healthcare service providers.
- **Advance a coherent set of viable recommendations** for future developments in the domain of global standards, namely in the field of regulation.

## 2.

## Methodology



### 3.

## Portuguese case specificities

- The exercise developed with the focus-group work produced a comparative matrix of impacts and effects accounted in the global study (McKinsey) and the Portuguese study (AM&A) derived from the specificities in the configuration of the healthcare value chain in Portugal.

Value Sources	Pharmaceutical industry	Medical Devices Industry	Distributors and wholesalers	Retail Pharmacies	Hospitals
Lowering inventory assets	●	●	●		●
Lowering costs in maintaining and financing stocks	●	●	●		●
Lowering waste due to obsolescence	●	●		●	●
Lowering recall costs	●	●	●	●	●
Lowering counterfeit and associated losses	●	●			
Lowering costs in data management			●	●	●
Lowering events with adverse effects				●	●
Lowering costs with price changes	●			●	
Lowering costs of production	●				
Global efficiency improvement in logistic operations	●	●		●	

Legend: ● Value source previously identified and applicable in Portugal ● Value source previously identified applicable in Portugal with reduced intensity ● Value Source previously identified but not applicable or non relevant in Portugal ● New value source identified for Portugal

### Potential Benefits in the Portuguese Case by player in the Value Chain

Source: Team Project from (data collected in the processes of stakeholders earing).

## 4.

### Potential Global (macro) impacts in Healthcare Value Chain

- Global results for a ten year period show a strong potential for net savings tied to the adoption of global standards in the portuguese helathcare system.
- Benefits surpass costs/investments from 6 to 26 times in the process of global standards adoption in healthcare value chain, generating savings for the economy situated between 239 and 561 million euros. Incorporating serial numbers net savings can grow up to a further amount situated between 113,5 and 230 million euros.

(Million euros)	Without serial numbers		With serial numbers (incremental logic)	
	<i>min</i>	<i>max</i>	<i>min</i>	<i>max</i>
<b>Estimaded cost reductions</b>				
Costs with ADE's	3,142	7,242	0,517	1,552
Production costs	1,448	2,897	1,448	1,448
Level of inventory	49,149	104,086	-18,895	-9,930
Stocks financing	3,344	7,041	-1,323	- 0,835
Stocks management	5,777	12,435	2,910	3,316
Inventários obsoletos	3,328	6,728	-0,378	0, 331
Recalls	1,351	1,719	-0,157	0,291
Devolutions	2,476	3,302	n.d.	n.d.
Income lost with counterfeit	0	0	14,484	20,278
Database updating	3,585	10,630	0	0
Costs with price changes	2,027	2,28	0	0
<b>Spending in implementation</b>				
Equipments	12,085	8,212	2,078	0,322
Information systems/Software	10,470	6,742	6,662	3,569
Aditonal operating costs	2,147	0,762	4,580	2,755
<b>Savings</b>				
Immediate results	29,936	96,173	-28,960	-14,656
Recorrent results	20,950	46,473	14,244	24,460
Cumulative results in 10 years	239,440	560,907	113,489	229,939
<b>10 year Cost-Benefit ratio</b>	<b>6 x</b>	<b>26 x</b>	<b>3 x</b>	<b>8 x</b>

# 4.

## Potential impact quantification

- Hospitals will lead potential gains that can reach 204 million euros.
- Pharmacies can obtain net savings of 129 million euros, followed by distributors and wholesalers, pharmaceutical industry and medical devices industry with potential gains of, respectively, 99, 68 and 60 million euros.
- Enlarging the codification efforts to serial numbers will produce more potential benefits for the pharmaceutical industry, reaching a global amount 277 million euros, and hospitals, reaching global benefits in the amount of 232 million euros.

(million euros)		Pharmaceutical Industry	Medical devices Industry	Wholesalers	Retail Pharmacies	Hospitals
<b>Without serial numbers</b>	Micro level	1,1 to 2,9	1,2 to 1,5	0,5 to 1,1	0,02 to 0,04	1,8 to 4,4
	Setorial level	25,9 to 68,2	45,3 to 60,3	42,6 to 99,3	44,7 to 129,1	80,9 to 204,0
	Cost-Benefit Ratio	3x to 13x	7x to 14x	5x to 32x	10x to 28X	11x to 51x
<b>with serial numbers</b>	Micro level	6,5 to 12	0,4 to 0,8	n.d.	0,02 to 0,05	1,8 to 5,0
	Setorial level	150,4 to 277,1	17,2 to 33,3	n.d.	62,1 to 146,5	82,2 to 231,8
	Cost-Benefit Ratio	4x to 14x	3x to 6x	n.d.	5x to 10x	7x to 33x

**Cumulative savings in 10 years (micro e setoraia) for the different segments of the healthcare value chain, for both scenarios studied (million euros)**

Source: Project team.

# 6.

## Conclusions

Current technological "state-of-art" delivers a strong potential which is far from being completely used

Healthcare systems global challenge combine quality and sustanaibility

Healthcare policies need to improve coverage and efficiency

Global (or compatible) standards will be required by EU Healthcare rules

Global standards implementation in healthcare carries relatively low costs and uncertainty

Global standards guarantee the quality of services and foster operational efficiency

Savings with the adoption of global standards can reach 561 million euros (without serial numbers...)

... existing the possibility to reach 791 million euros (with serial numbers)

Hospitals will benefit the most from global standards implementation without serial numbers

Pharmaceutical industry could benefit the most from global standards with serial numbers



## 7.

### Recommendations

#### **Adoption by Portugal of global standards in the health value chain ...**

... fostering the use of global standards should be based in a process where “everybody speaks the same language” and developed through well tested and validated solutions reaching quick wins in collective efficiency within the supply and value healthcare chain and bringing new and sustainable contributions for cost containment in public spending on healthcare.

#### **... but accommodating, initially, batch and validity references**

The risks associated to a “big-bang” approach strongly suggest a “mounting wave” approach with different phases beginning with the introduction of global standards accommodating only the batch number and the validity date (scenario without serial numbers) and progressing later on to accommodate the serial number (a more complex scenario demanding more investment).

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