

# **Building Indicators to Evaluate Effectiveness. Or, in other words: how do we know if we are doing things right?**

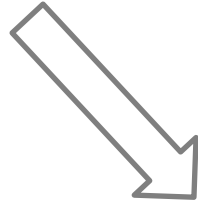
**Fátima Espinosa-Casero**  
[University of Valladolid]

## 2 goals:

1) Reflect on:  
WHY  
WHAT

2) HOW?  
Step by step

# Why to evaluate?



**Why don't cultural  
institutions evaluate  
their performance  
more often?**

# **Why is it useful to evaluate CHI performance?**

**1) For managers: to be self-aware and focus**

**2) For policy makers: to have an objective tool to allocate resources**

**3) For private stakeholders(sponsors): have an idea of how their sponsorship goes**

# EFFECTIVENESS

vs.

# EFFICIENCY

*Degree to which an  
entity complies with  
its objectives*

*Use of resources to  
achieve the goals*

# Where to start?

***Mission***

***Objectives***

***KPIs***

# What tools do we have?

## **PERFORMANCE INDICATORS**

- Set of indicators
  - Measure effectiveness
- Dashboards

## **FRONTIER METHODS**

- Measure efficiency
  - Identify the «frontier»: best possible practice
- Calculate how far we are from there

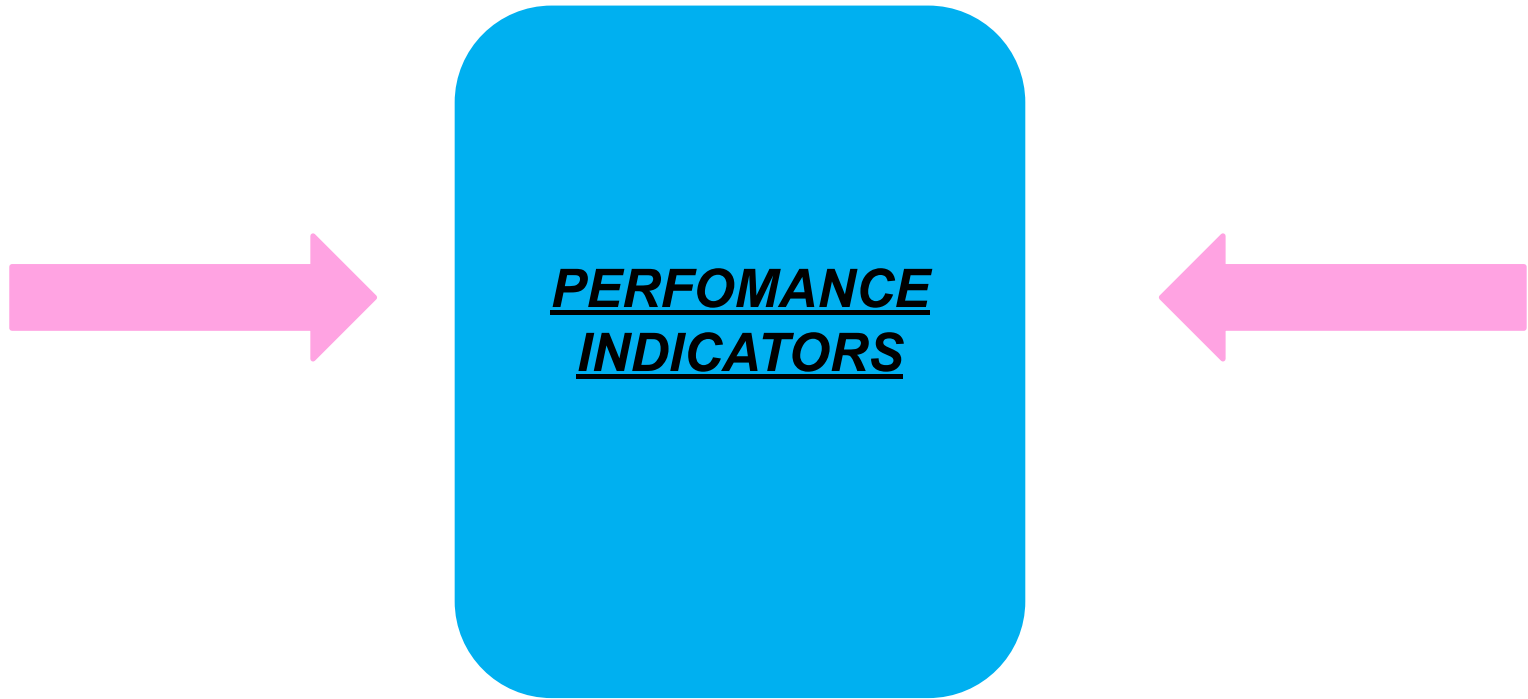
## **COST EFFECTIVENESS ANALYSIS**

- Compare returns with implementation costs

## **COST BENEFIT ANALYSIS**

- Compare cost of different options to achieve the same goal

# HOW TO BUILD...?



# ***STEP 0***

***What exactly do we  
want to evaluate?***

***Effectiveness of Living  
Labs in RECHARGE***

***(as part of the institution  
ecosystem)***

# STEP 0

## Clarify the objectives

### D 1.1

"These objectives comprise the inclusion of **multiple perspectives**, the achievement of **shared benefits**, the acknowledgement of **social and environmental responsibilities** beyond economic ones, the establishment of **trust and transparency**, the **empowerment of all the actors involved**, the **sustainability of practices and the resilience** of organizations, and **inclusive innovation**."

### D 2.1

These institutions may be seeking **innovative approaches to overcome funding limitations** and **enhance accessibility** to cultural heritage. They are open to exploring new ways of **engaging their stakeholders and communities**, and they recognize the value of participatory management in **creating social, cultural, and economic impact**. These institutions are willing to embrace a holistic approach that integrates participation as a fundamental element in **sustainable financing**. [...]. These cultural heritage institutions are forward-thinking, adaptable, and eager to leverage participatory approaches to drive their business models and achieve better **long-term sustainability**.

### RECHARGE KPIs

Impact of RECHARGE: Resources are repositioned and **community engagement** is formalized to stimulate **social and economic revival** in the CHIs and, through them, in society **innovatively and responsibly**.

# **STEP 0**

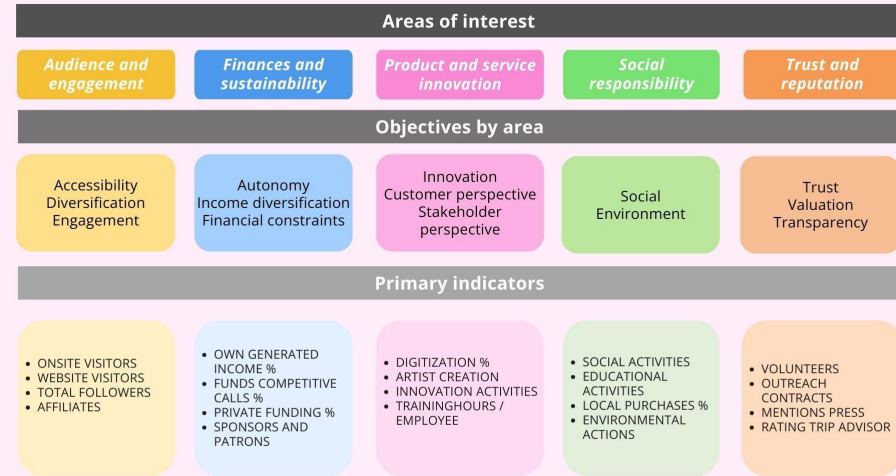
***Group our objectives  
to create thematic  
dimensions***

## ***Main aims and effectiveness dimensions***

- 1. Audience and engagement**
- 2. Finance and sustainability**
- 3. Product and service  
innovation**
- 4. Social responsibility**
- 5. Trust and reputation**

# STEP 1

***Translate them into measurable variables***



# STEP 1

***Translate them into  
measurable variables***

***Audience and  
engagement***

- ONSITE VISITORS
- WEBSITE VISITORS
- TOTAL FOLLOWERS
- AFFILIATES

# STEP 1

***Translate them into  
measurable variables***

***Finances and  
sustainability***

- OWN GENERATED INCOME %
- FUNDS COMPETITIVE CALLS %
- PRIVATE FUNDING %
- SPONSORS AND PATRONS

# STEP 1

***Translate them into  
measurable variables***

***Product and service  
innovation***

- DIGITIZATION %
- ARTIST CREATION
- INNOVATION ACTIVITIES
- TRAININGHOURS /  
EMPLOYEE

# STEP 1

***Translate them into  
measurable variables***

***Social  
responsibility***

- SOCIAL ACTIVITIES
- EDUCATIONAL  
ACTIVITIES
- LOCAL PURCHASES %
- ENVIRONMENTAL  
ACTIONS

# STEP 1

***Translate them into  
measurable variables***

***Trust and  
reputation***

- VOLUNTEERS
- OUTREACH  
CONTRACTS
- MENTIONS PRESS
- RATING TRIP ADVISOR

# STEP 1

## ***WHEN DO WE HAVE TO DO THIS?***

***Evaluation can be designed:***

- ***Ex ante: before the implementation***
- ***Ex post: after the implementation***

***Ex- post, with  
existing data***

Indicator	Definition
<b>AUDIENCE AND ENGAGEMENT</b>	
ONSITE VISITORS	Annual number of visitors and on-site users
WEBSITE VISITORS	Annual number of visitors to the website
TOTAL FOLLOWERS	Number of followers on social media (Facebook, Instagram, Twitter (X), TikTok)
AFFILIATES	Number of affiliates (friends of the museum, membership cards, partners)
<b>FINANCE AND SUSTAINABILITY</b>	
OWN GENERATED INCOME (%)	Percentage of self-generated income (tickets, space rental, shop, ...)
FUNDS COMPETITIVE CALLS (%)	Percentage of funds obtained in competitive calls for proposals
PRIVATE FUNDING (%)	Percentage of funds from private donors
SPONSORS AND PATRONS	Number of sponsors and patrons
<b>PRODUCT AND SERVICE INNOVATION</b>	
DIGITIZATION PERCENTAGE	Percentage of digitisation of the cultural offer of services (access to collection, activities, ...)
ARTIST CREATION	Number of artists participating in creation programmes
INNOVATION ACTIVITIES	Number of activities involving technological or creative innovation (augmented reality, virtual reality, immersive experiences, ...)
TRAINING HOURS/EMPLOYEE	Number of hours of training given to staff in the use of new technologies per employee
<b>SOCIAL RESPONSIBILITY</b>	
SOCIAL ACTIVITIES	Number of actions in social inclusion activities (gender, minorities, disabled, ...)
EDUCATION ACTIVITIES	Number of actions in educational programmes
LOCAL PURCHASES (%)	Percentage of purchases sourced from local suppliers
ENVIRONMENTAL ACTIONS	Number of actions regarding environmental care (renewable energies, recycling, less consumption of resources, ...)
<b>TRUST AND REPUTATION</b>	
VOLUNTEERS	Number of volunteers
OUTREACH CONTRACTS	Number of outreach contracts with the community (collaboration with the town council, corporative groups of professionals, general collaboration with other institutions, ...)
PRESS MENTIONS	Number of mentions in the press
RATING TRIPADVISOR	Rating in Trip Advisor

## STEP 2

***Involve different departments □ Internal coordination***

***Fixed reporting periods***

***Survey (basic institutional information + variables of the five dimensions) Annual data from 2021-2024***

***Two phases:***

- 1) End 2024 (to collect data 2021-2023)***
- 2) January 2025 (to collect data 2024)***

# STEP 2

## ***First Generation Living Labs***

Hunt Museum (Limerick, Ireland)  
Tessuto Museum (Prato, Italy)  
Maritime Museum (Tallinn, Estonia)

## ***Second Generation Living Labs***

Serfenta Association (Cieszyn, Poland)  
Pinacoteca e Museo Civico del Palazzo Minucci (Volterra, Italy)  
Museum of Modern and Contemporary Art MART (Rovereto, Italy)

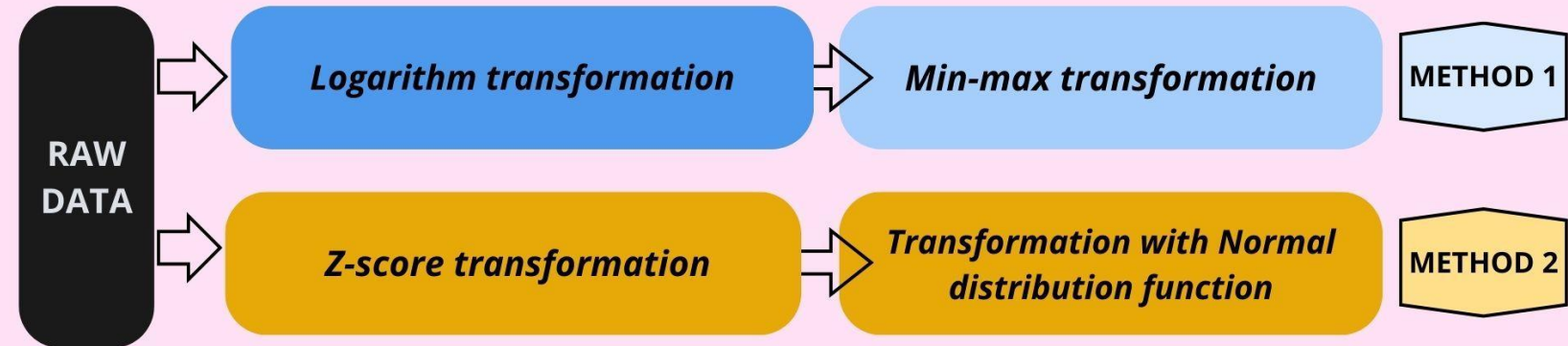
## ***STEP 3: DATA STANDARDISATION***

***WHY?***

***Because all data should be in the same scale***

# DATA TRANSFORMATION

What is the circumstance?	<b>Difference in scale (size) of the institutions</b>	<b>Different units of measurement of variables</b>
Why should we solve it?	Makes it difficult to compare institutions	Variables must have the same range (0-1) to weigh equally in the indicator
How?	<i>Step 1: DATA SMOOTHING</i>	<i>Step 2: DATA STANDARDISATION</i>



# STEP 3

## Different units of measurement of variables

Variables must have the same range (0-1) to weigh equally in the indicator

*Step 2: DATA STANDARDISATION*

*Min-max transformation*

METHOD 1

Year	Visitors
2019	7,500
2020	6,800
2021	8,000
2022	10,500
2023	13,000
2024	15,000

## STEP 3

$$X_i^* = \frac{X_i - X_{\min}}{X_{\max} - X_{\min}}$$

2019  $\frac{7,500 - 6,800}{15,000 - 6,800} = 0.09$

Year	Visitors
2019	7,500
2020	6,800
2021	8,000
2022	10,500
2023	13,000
2024	15,000

## STEP 3

Year	Visitors	Standardised data
2019	7,500	0.09
2020	6,800	0.00
2021	8,000	0.15
2022	10,500	0.45
2023	13,000	9.76
2024	15,000	1.00

## STEP 4

### ***Building partial indicators:***

***Add together the standardized values of all the variables that belong to the same dimension***

***Audience and engagement***

- ONSITE VISITORS
- WEBSITE VISITORS
- TOTAL FOLLOWERS
- AFFILIATES

$$I_A = V_{A1} + V_{A2} + V_{A3} + V_{A4}$$

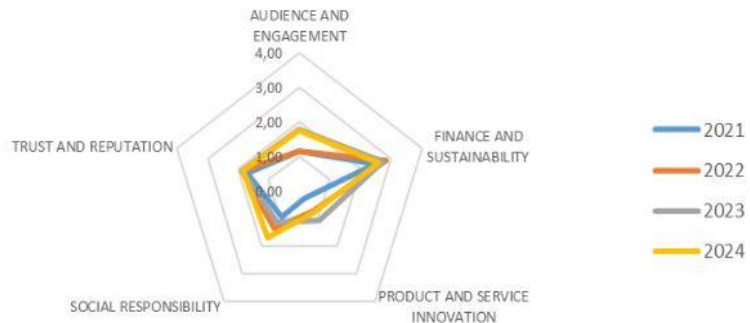
## Hunt Museum

log min-max



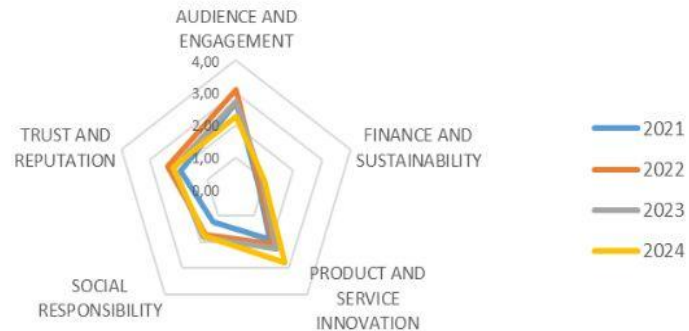
## Tessuto Museum

log min-max



## Maritime Museum

log min-max



## STEP 4

### **Building composite indicators:**

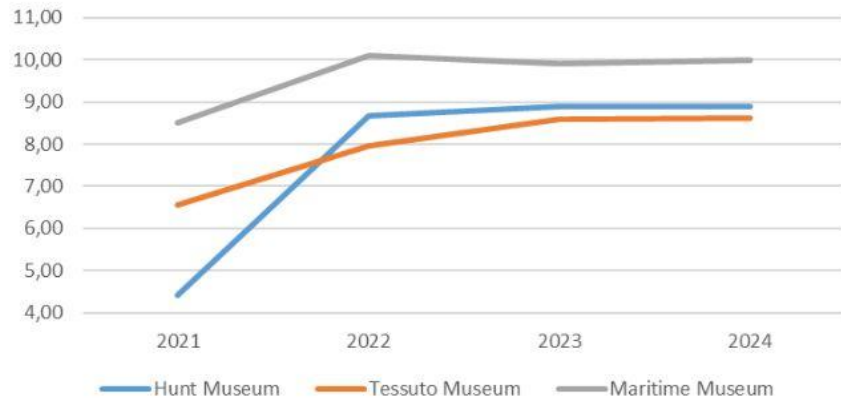
***Add together all the partial indicators (per year) to obtain global result***

**The global indicator of  
was constructed by  
aggregating the partial  
indicators**

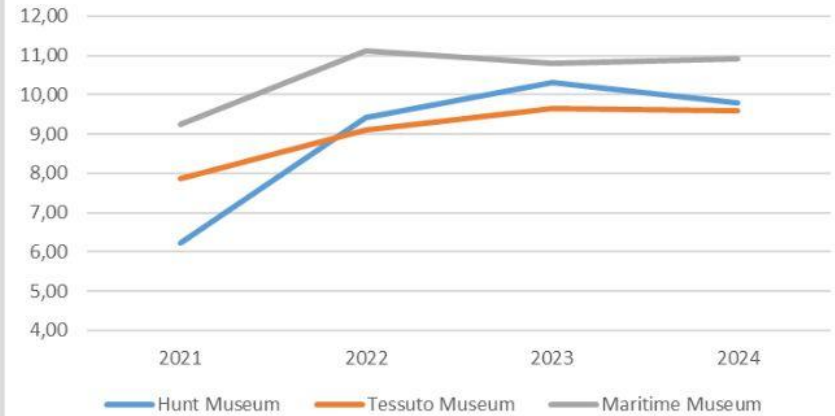
$$\text{RECHARGE IE}_T = I_A + I_F + I_I + I_S + I_T$$

# STEP 4

log min-max



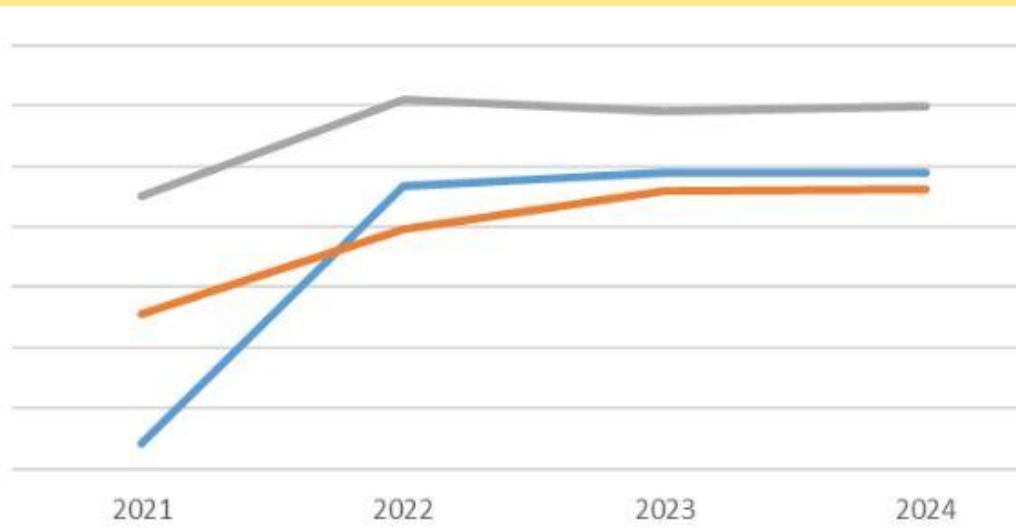
z-score normal



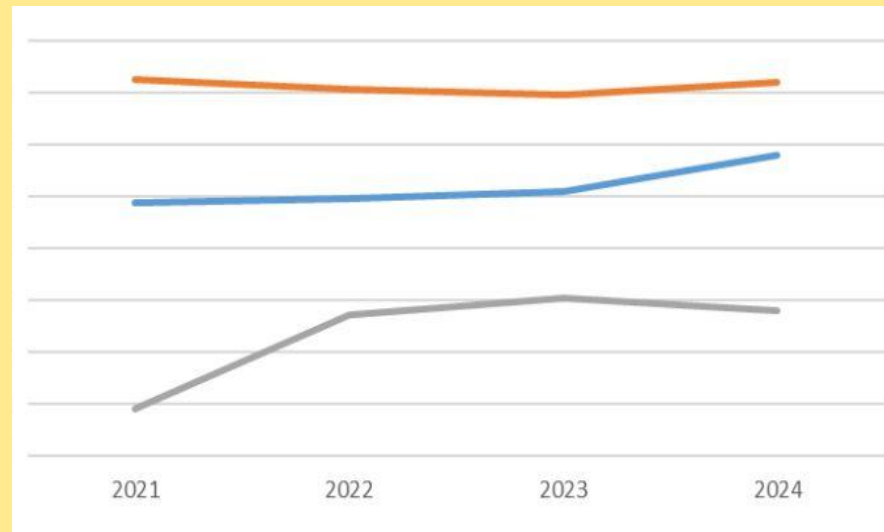
## STEP 5

### *Interpreting results* □ *Reflection*

**Not only seeing wheter thing are going well or not, but  
understanding WHY**



***1st generation RECHARGE***



***2nd generation RECHARGE***

# KEY TAKEAWAYS

**1.  
Define  
your goals  
and how to  
measure  
them**

**2.  
Data  
collection  
is totally  
worth it**

**3.  
Use  
indicators  
to learn,  
not just to  
report**