

P R i S o N
L i F e
i N D e X

Measuring human rights - a
Multi-Criteria Decision Aiding
approach

CIFRE : LIRSA (CNAM) / LAMSADE
(Dauphine) and Prison Insider

Motivations

- ➔ Lack of accessible information / awareness regarding prison conditions and violations of HR in prison (**Prison Insider's problem**)
- ➔ Widespread use of composite indicators / effort to quantify highly complex and multi-dimensional data for advocacy and policy purposes (**LAMSADE's problem**)
- ➔ Work with a very high numbers of actors (non familiar with mathematical modelling) to model significantly and transparently their preference (**Lola's problem**)

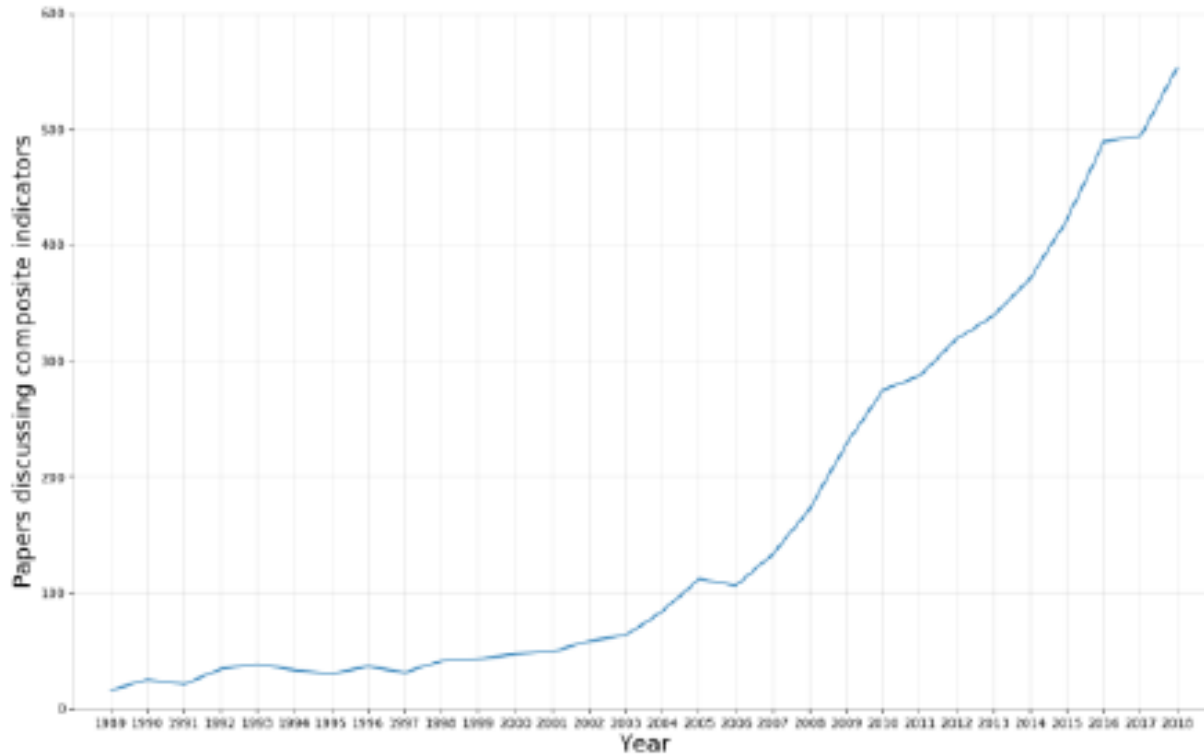
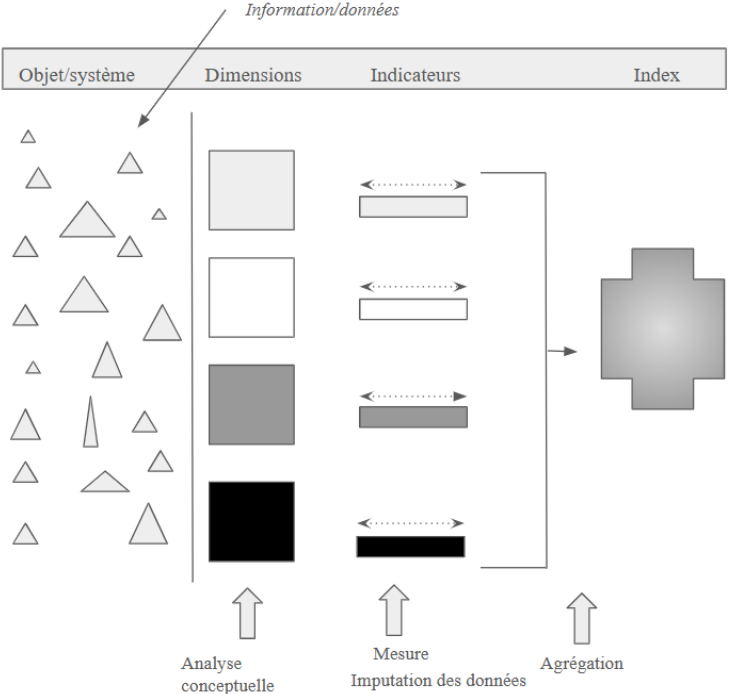


Fig. 1. Search on www.scopus.com using as search string: TITLE-ABS-KEY (“composite indicator*”) OR TITLE-ABS-KEY (“composite index”) OR TITLE-ABS-KEY (“composite indices”).

**Kuc-Czarnecka,
Lo Piano,
Saltelli (2020)**

Modelling of the problem



Modelling of the problem

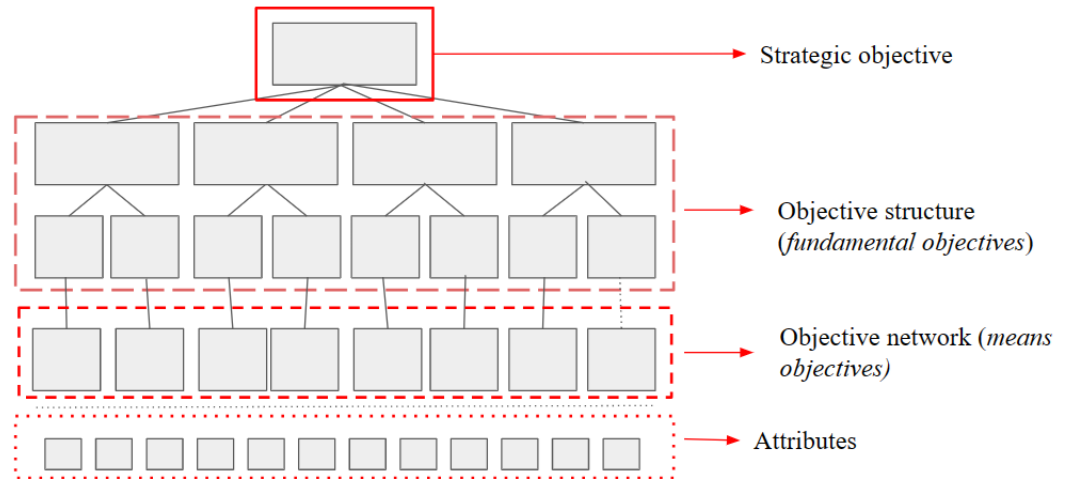
> **Decision makers** : multi-disciplinary consortium + CSO *Prison Insider*

Modelling of the problem

> Using **Ralph Keeney's Value Focused Thinking** methodology (1992) to build the model of the index

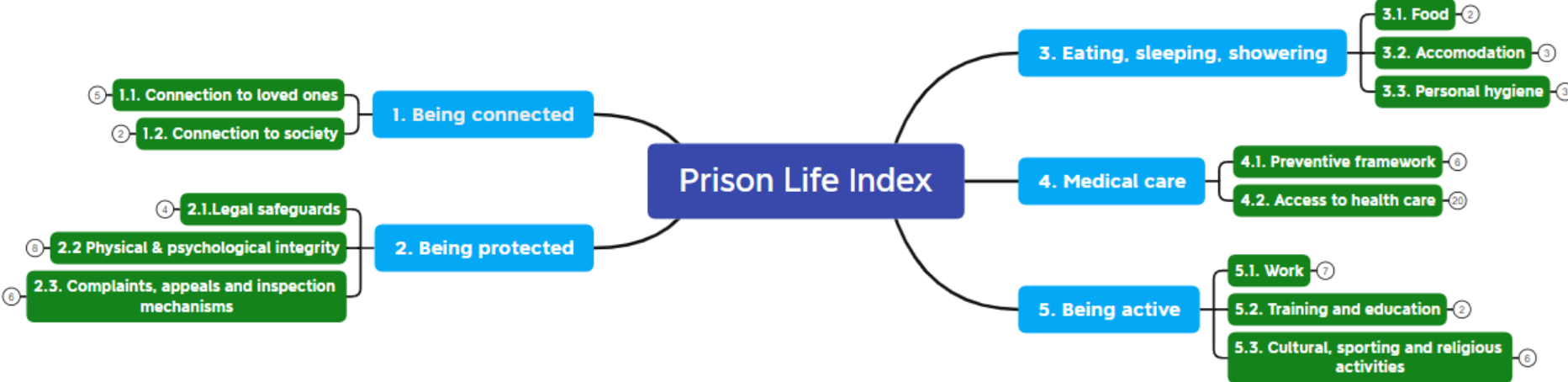
Cf. **Rousval & Bouyssou** (2008)

> *Value focused vs. data focused*

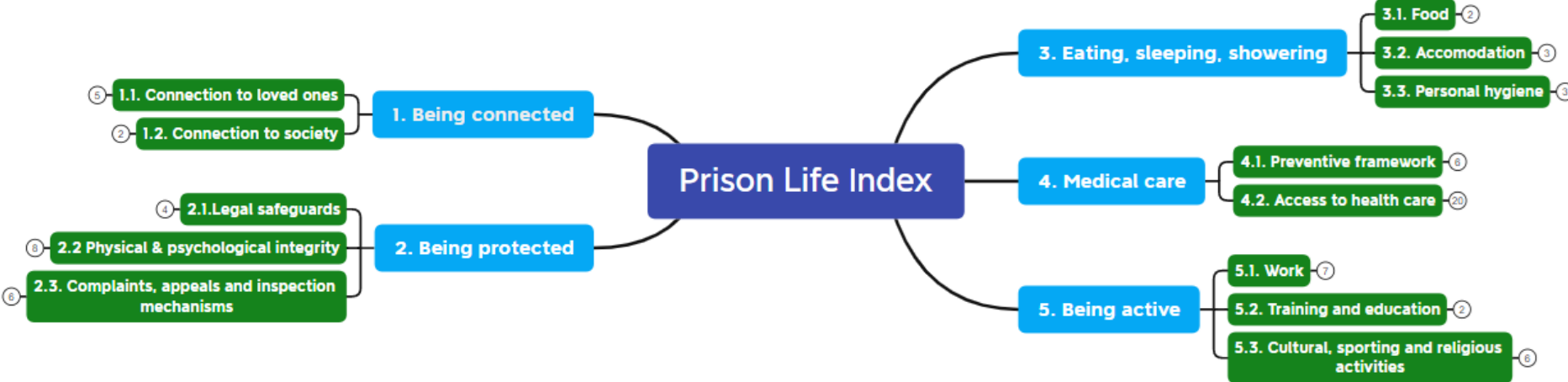


See Martin Moro, Escoffier, Laufer, Mesurer le respect des droits fondamentaux : intérêt et défis - l'exemple du *Prison Life Index*, RIEJ, TBP 2024

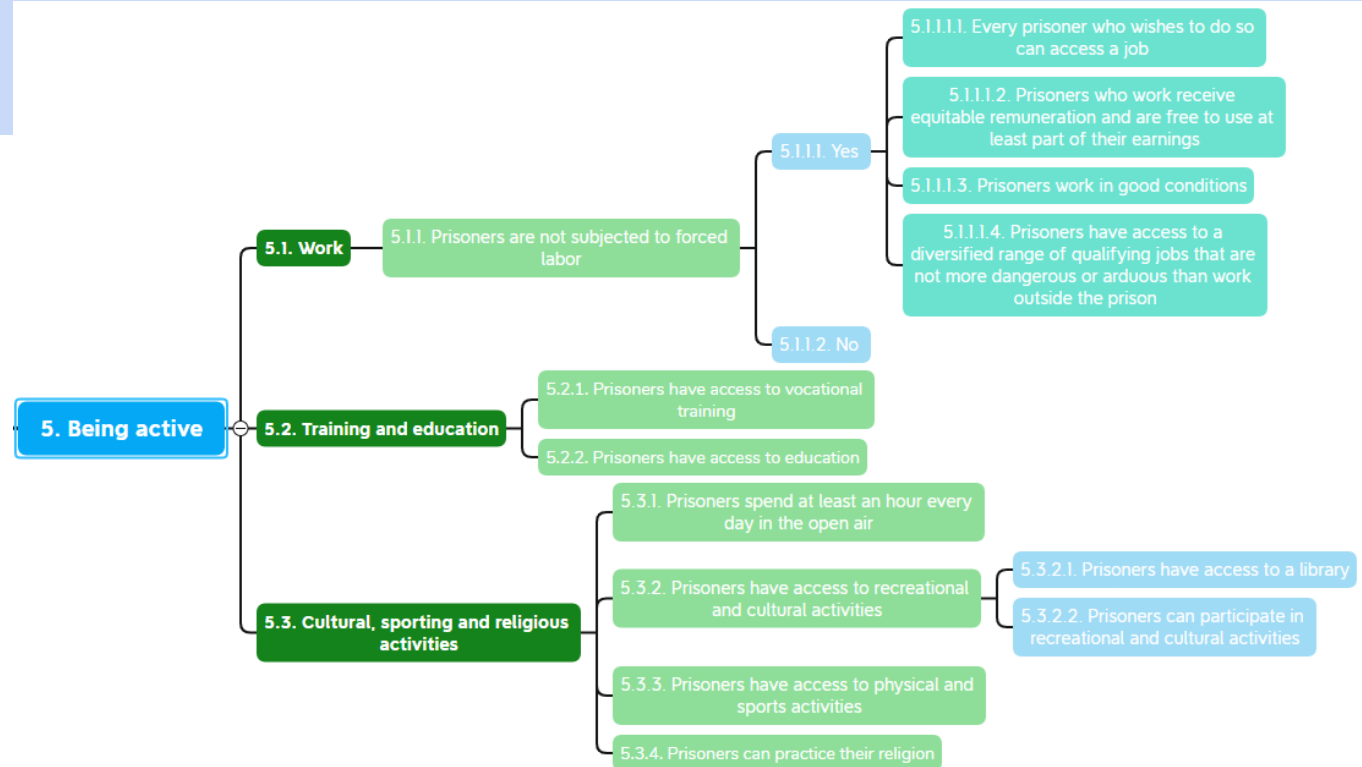
Modelling of the problem



Modelling of the problem



Data used

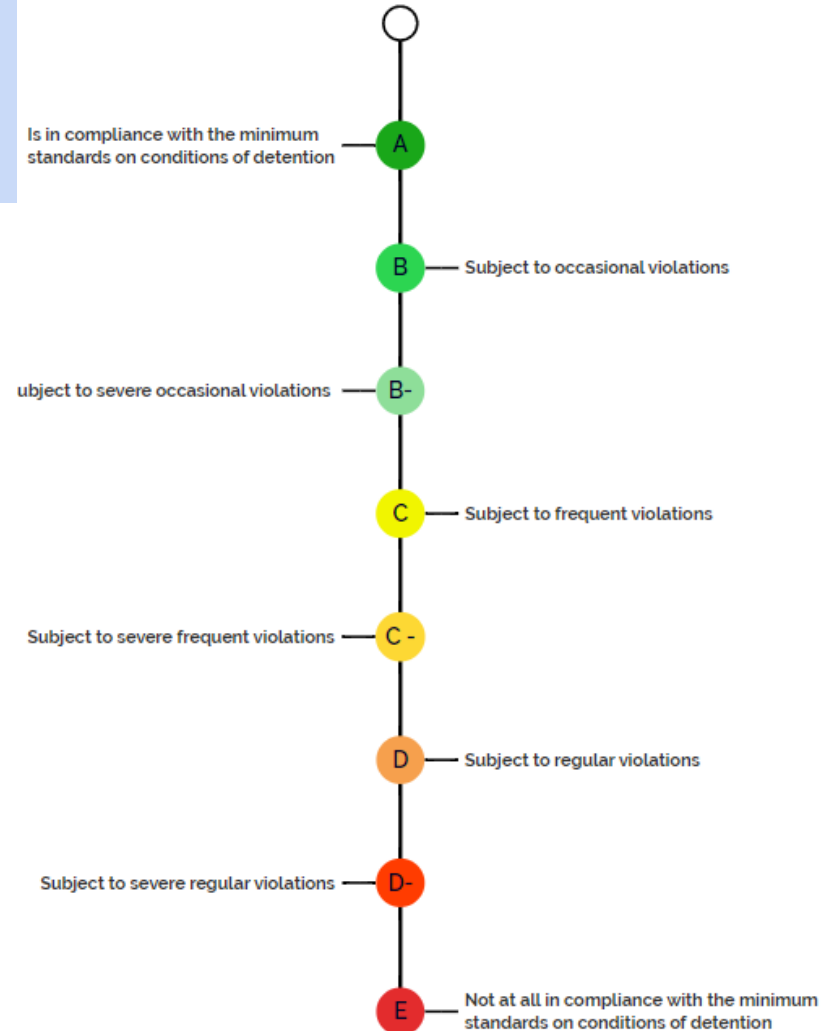


Data used

> Ordinal data / semantic scale

> Evaluation of experts reflecting a consensus of perceptions (**use of median**)

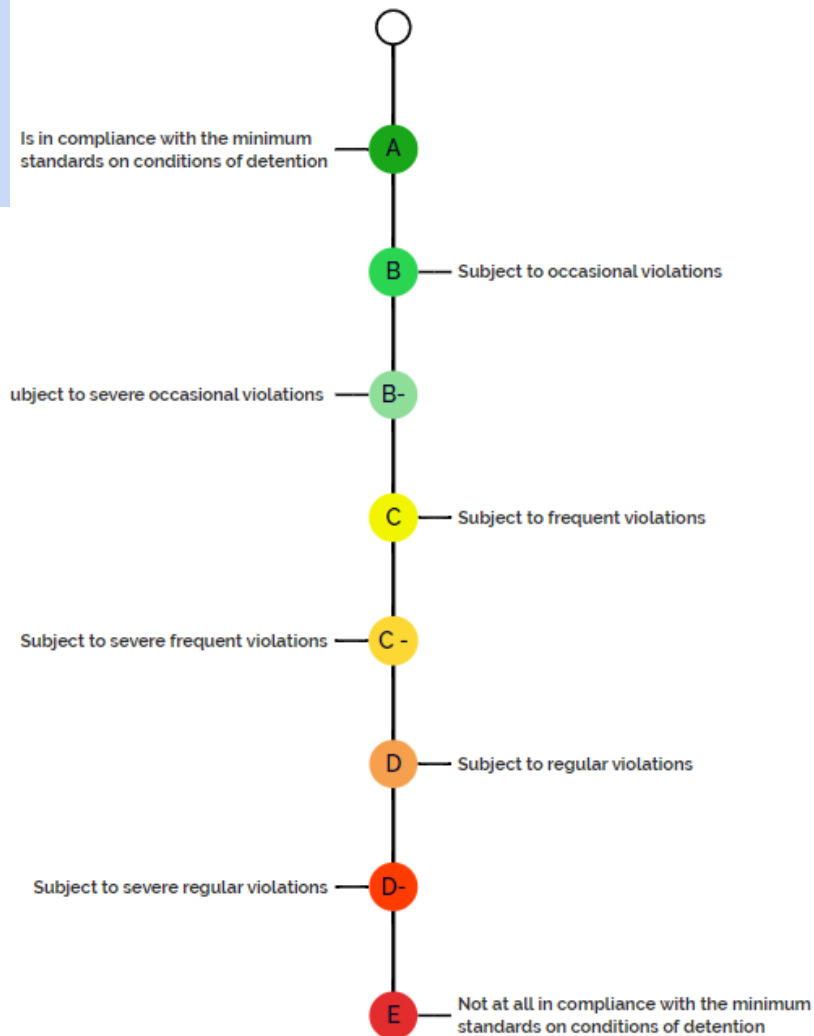
> **3 evaluations per indicator**



Data used

> Ordinal classification

> Finite number of ordered classes



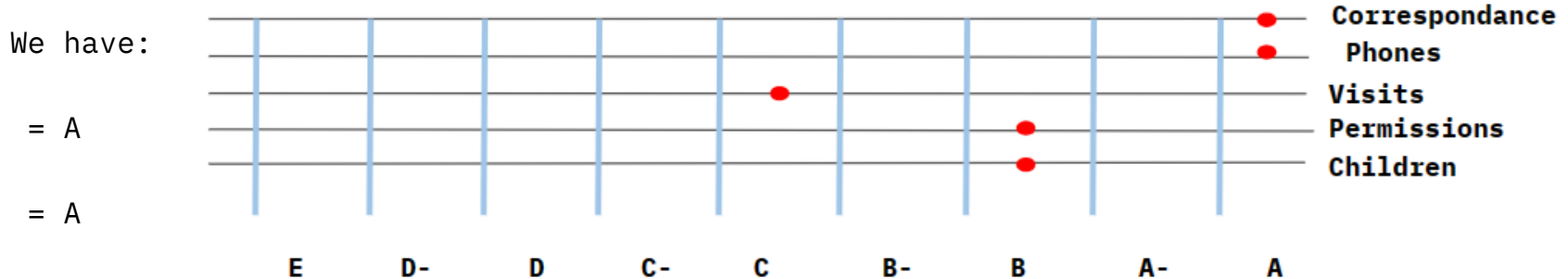
Tools - Choice of the aggregation model

> Initial constraints : *limitation of compensation, penalization of penalization of unbalanced profiles, evaluations of indicators = final evaluations*
indicators = final evaluations

> Choice of an aggregation from the ELECTRE family :
ELECTRE-TRI

Procedure

- Let be the evaluations of Ireland on the categories "Connection to loved ones." **There are 5 criteria**



= A

= A

= C

= B

= B

Majority threshold > 50%

Criteria chosen : B

Veto threshold = 3

Not applicable