

BELGIAN INDEX OF MULTIPLE DEPRIVATION

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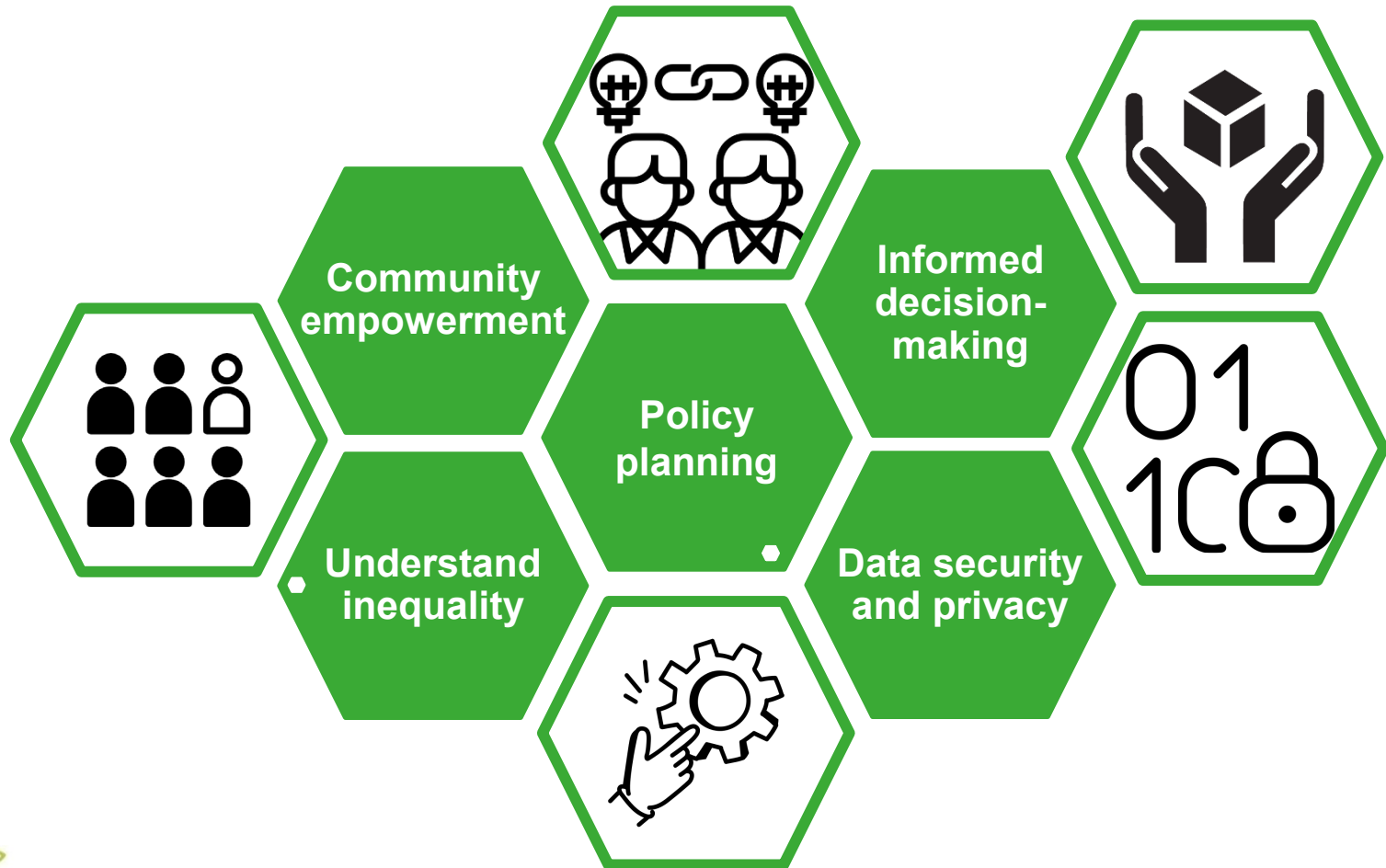
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Belgian Index of Multiple Deprivation (BIMD)

- ☞ a reliable, multidimensional tool to measure geographical variations in social and economic circumstances in Belgium
- ☞ used independently or in conjunction with other data
- ☞ estimates relative socioeconomic deprivation for areas, not people

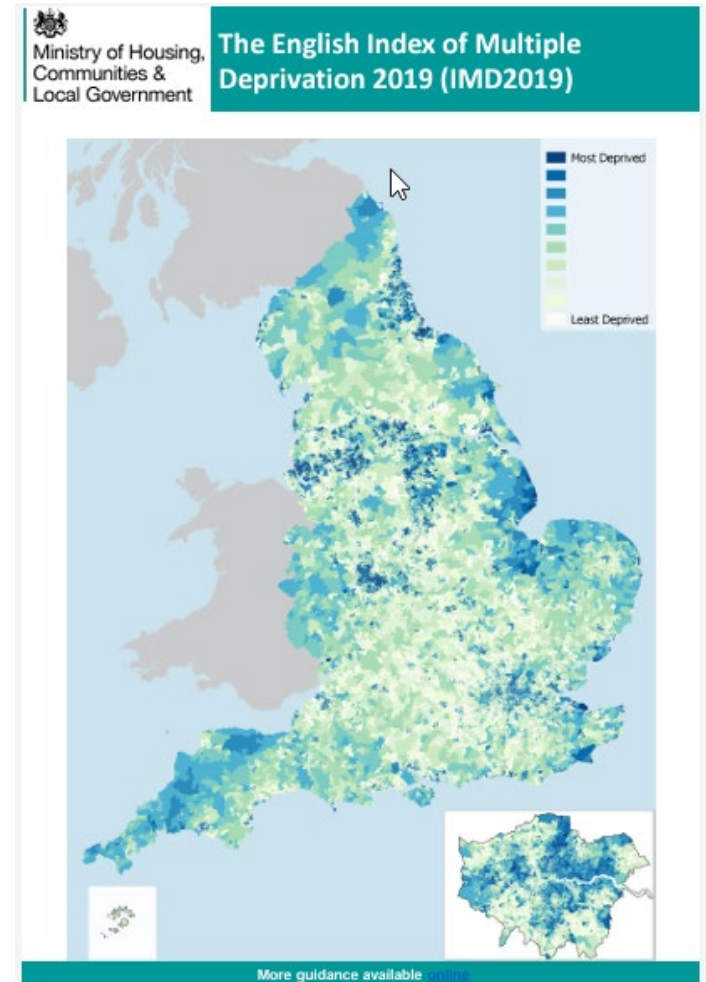
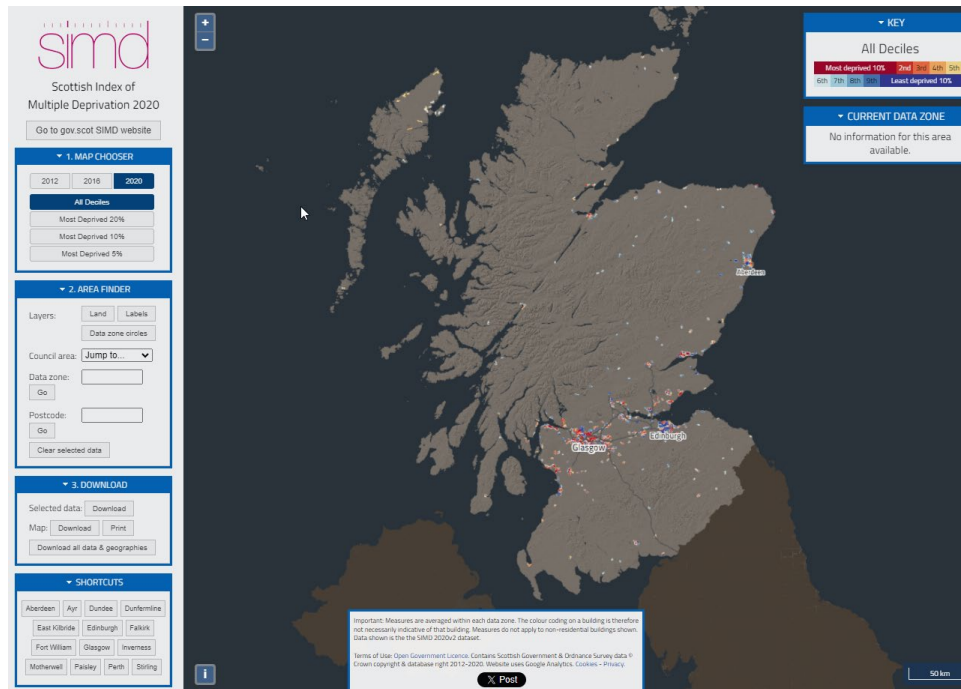
Why the need for a BIMD?



Inspiration for the BIMD

- Townsend Deprivation Index (1987)

Scottish Index of Multiple Deprivation



Constructing the BIMD

1

- Geographical level and time scale

2

- Identification of relevant domains & indicators

3

- Determine weights and calculate BIMD scores

4

- Validate the index

Constructing the BIMD

1

- Geographical level and time scale

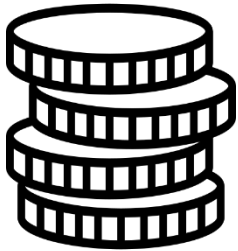
- Development level: statistical sector
- Time scale: 2001 and 2011

2

- Identification of relevant domains & indicators

- Literature review and stakeholder consultation
- 6 domains

Domains and indicators



Income



Employment



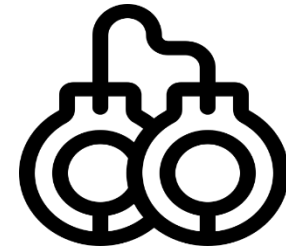
Education



Housing

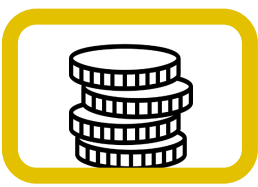


Health



Crime

Income



- % individuals in lowest income decile
- % households with net tax. income < minimum wage *

Employment



- % unemployed in working age population
- % not working due to disability in working age population

Education



- % early school leavers
- NEET indicator
- % working age adults without qualification

Housing



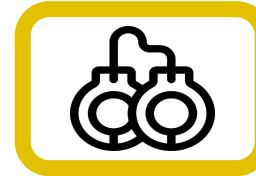
- % individuals living in dwellings:
 - Tenants**
 - Dwelling <35 m²
 - Without central heating**
 - Without insulation
 - Without kitchen
 - Without toilet
 - Without bathroom**
 - Without internet

Health



- Standardized mortality ratio
- Standardized suicide rate
- Preventable mortality fraction
- Self-reported health***

Crime



- Rate of property crimes
- Rate of violent crimes
- Rate of family violence crimes
- Rate of drug-related crimes
- Rate of fraud

Notes

* weighted by household size in BMID2011

** Only included in BMID2011, with %living in dwellings <0.5 room/person

*** Not included in BMID2011

Constructing the BIMD

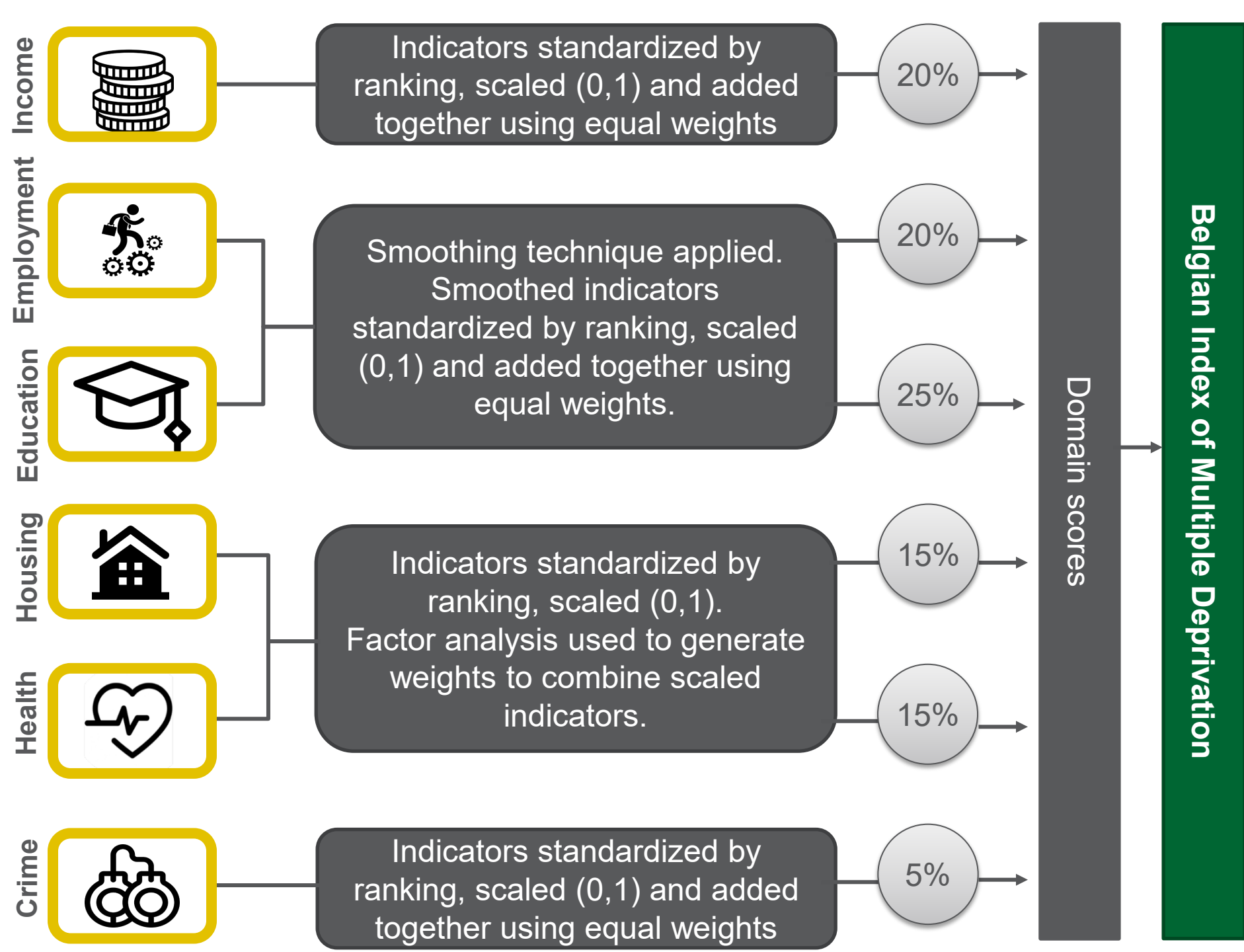
3

- Determine weights and calculate BIMD scores

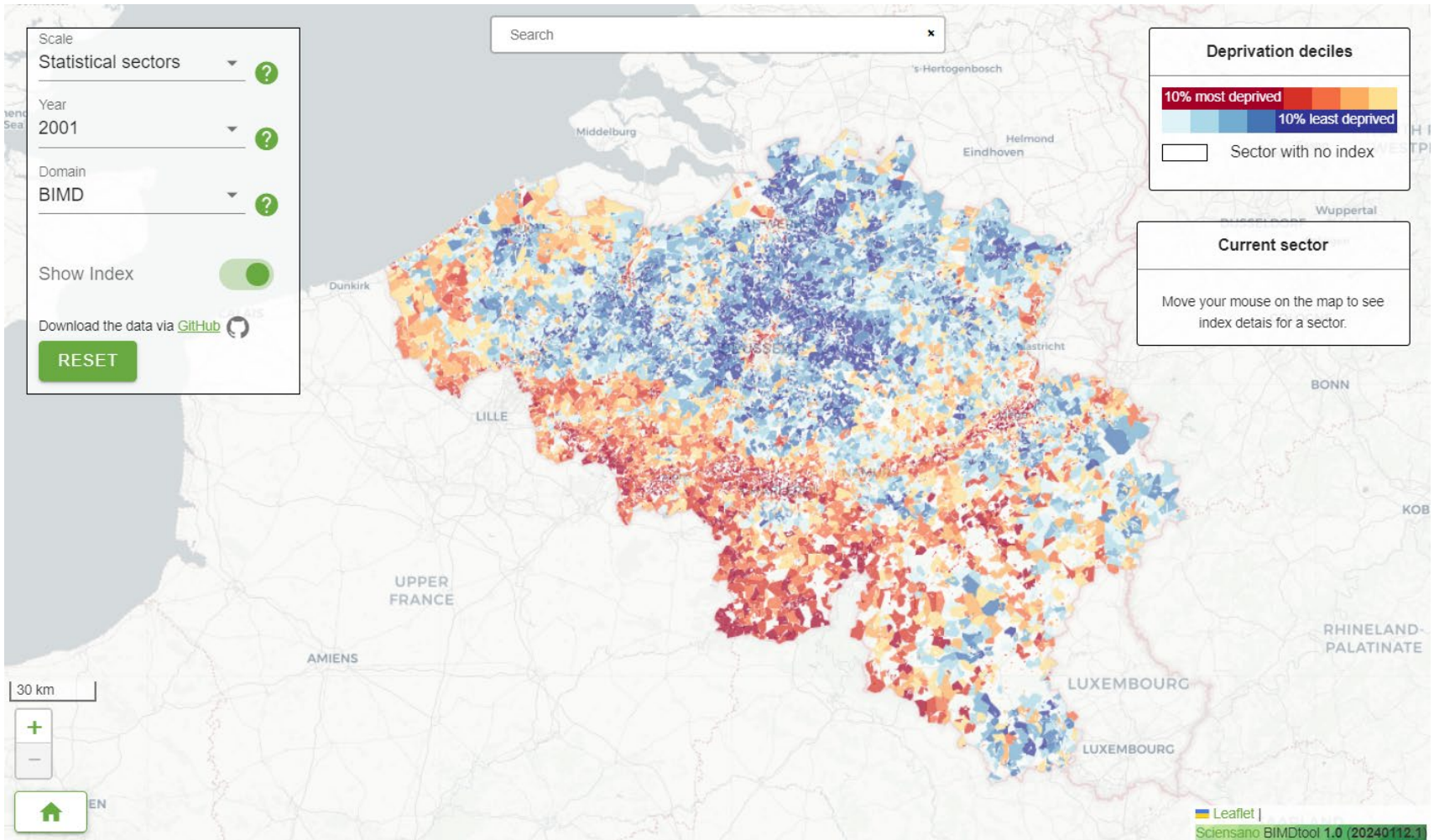
- Literature review and stakeholder consultation
- Sensitivity analysis

4

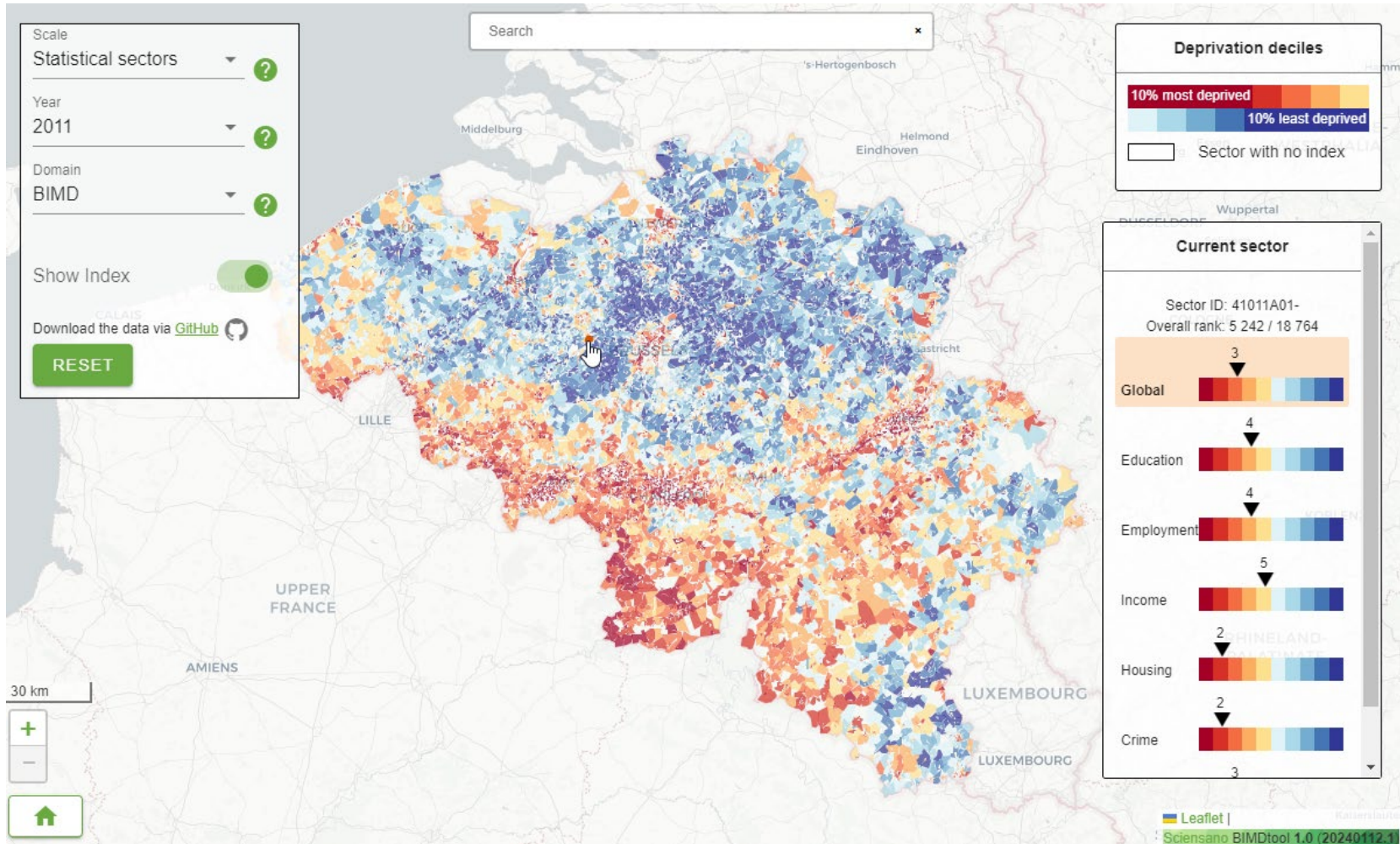
- Validate the index



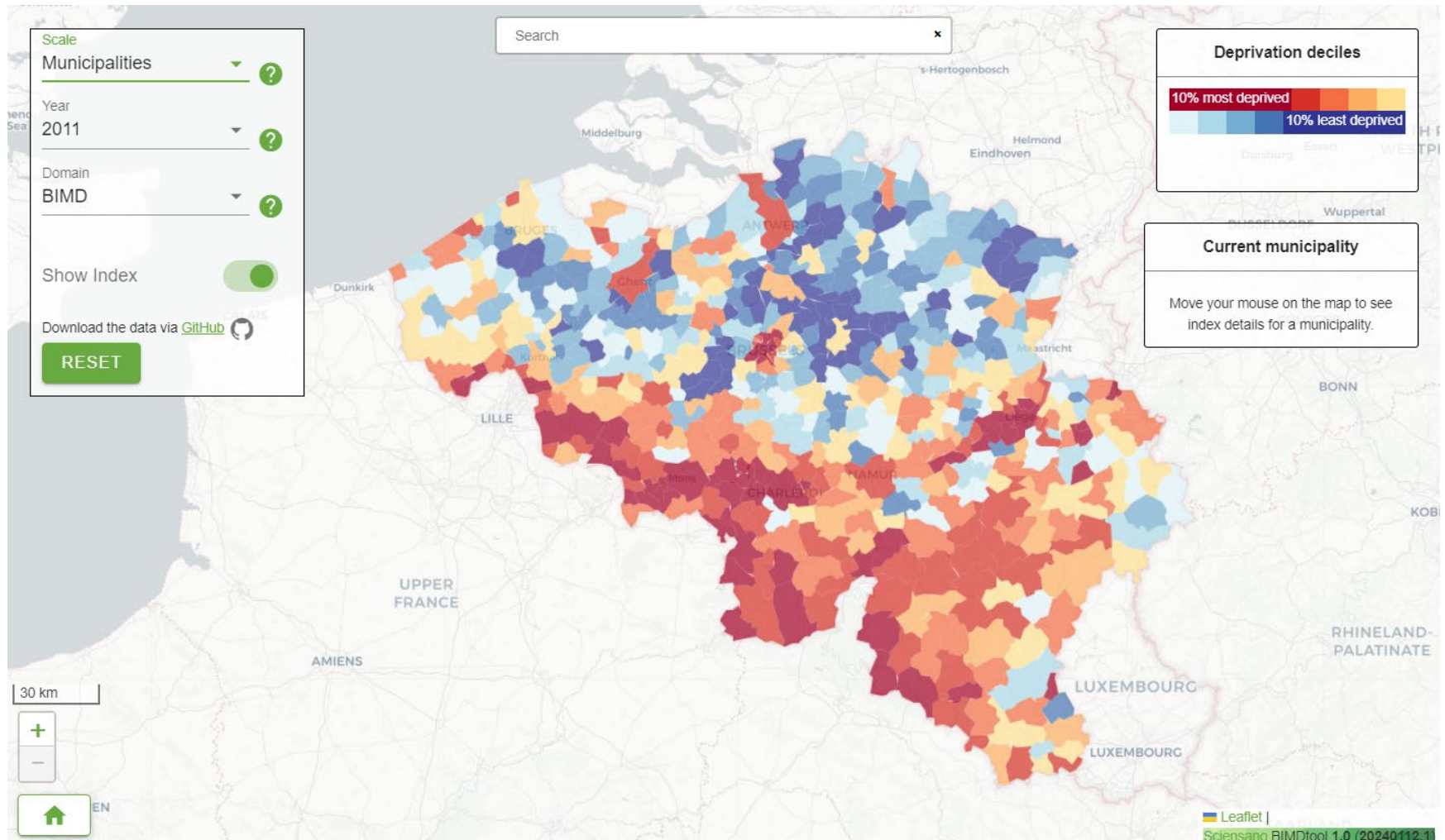
Results BIMD 2001



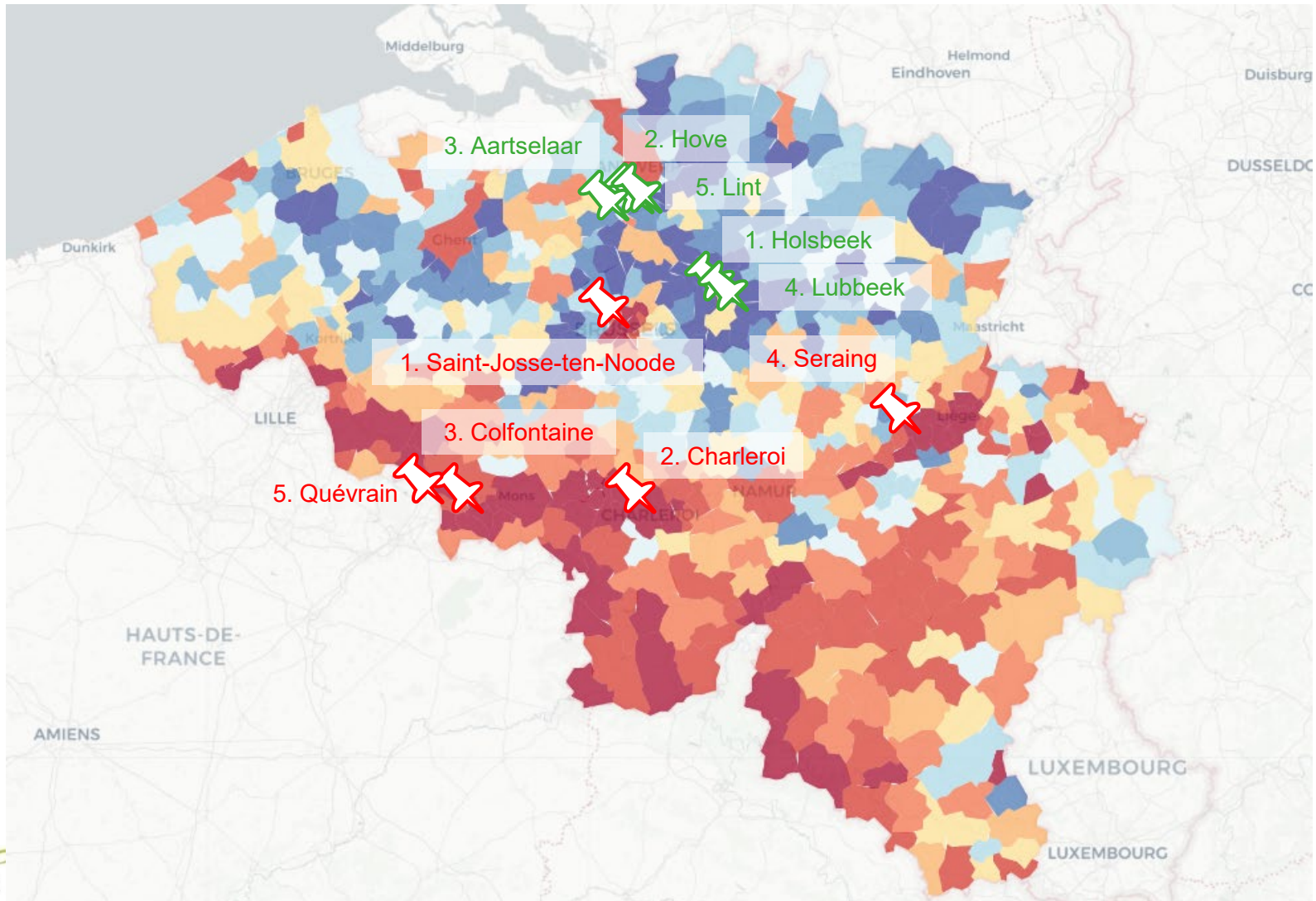
Results BIMD 2011



Results by municipalities

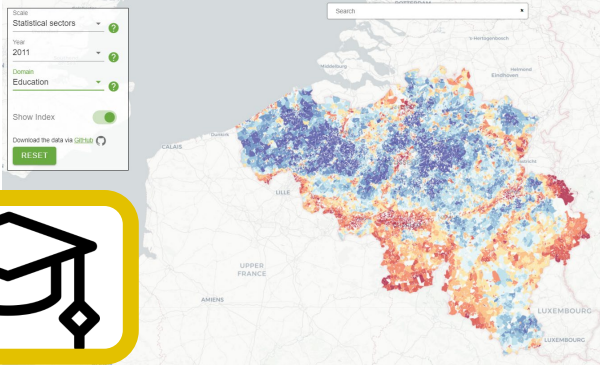


Rankings BIMD 2011: most (red) and least (green) deprived municipalities

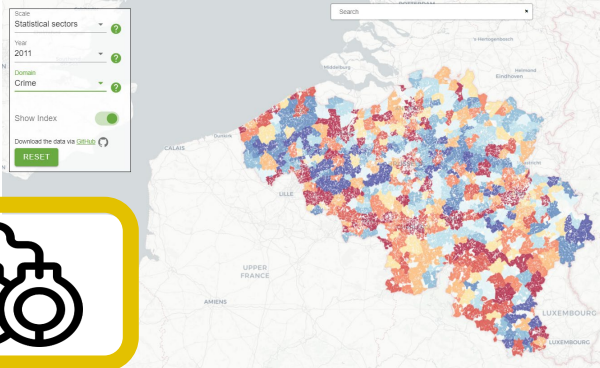


Results by dimensions

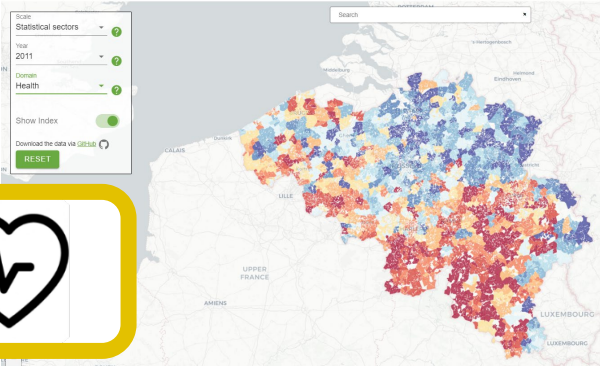
Education



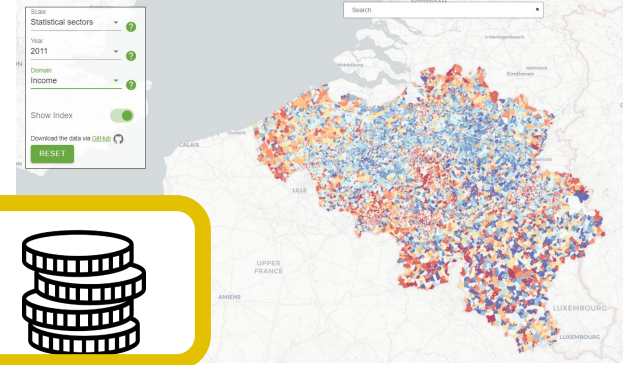
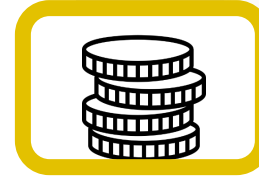
Crime



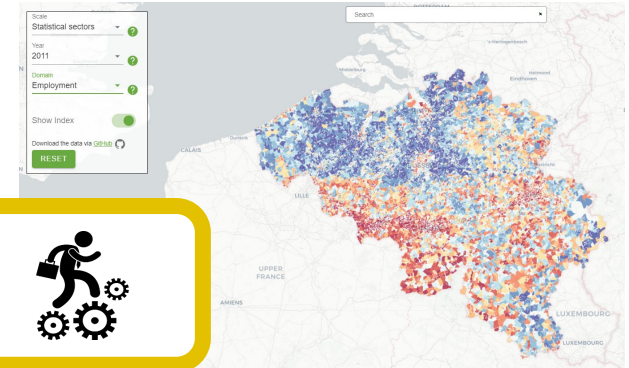
Health



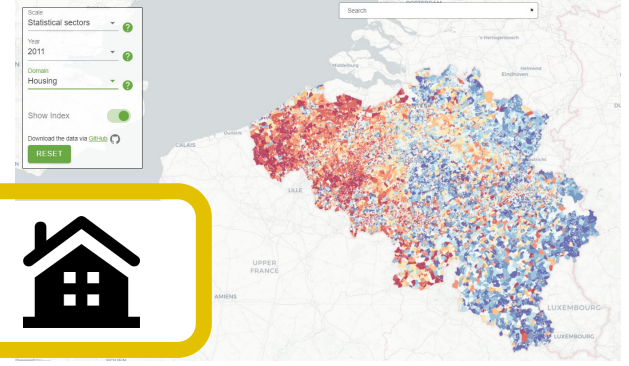
Income



Employment



Housing



Available in open data

- R codes
- Datasets by statistical sectors
- Datasets by municipalities
- Regional versions
- With scores, ranks, deciles
- For all domains and for BIMD

bimd-project / bimd Public

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Go to file Code

bimd-project Delete FILE 2 BIMD2011 DOMAINS (SCORES, RANKS, DECILES)/BIMD_2... 8db0f89 · 4 months ago 91 Commits

FILE 1 BIMD2001 DOMAINS (SCORE, RANKS, D...	Add files via upload	2 years ago
FILE 2 BIMD2011 DOMAINS (SCORES, RANKS, ...	Delete FILE 2 BIMD2011 DOMAINS (SCORES, RANKS, DECILE...	4 months ago
FILE 3 SHAPEFILES	Add files via upload	2 years ago
FILE 4 DIAGRAM OF BIMD2001	Add files via upload	2 years ago
FILE 7 R CODES	Update Summary measures BIMD2011.R	2 years ago
README.md	Update README.md	5 months ago

README

BIMD2001 BIMD2011

Conclusion



Strength

- Measuring tool
- Relative deprivation
- Areas
- By domains & index
- Comparison between areas and over time
- Free and easy accessible

Limitation

- Not a definitive or deterministic resource
- Not absolute deprivation
- Not persons within areas

Future prospects

- Update with census 2021
- Continuous support and improvement of the tool
- Continue to promote its use
- Monitor health inequalities on healthybelgium.be

Under construction: BIMD 2021 dimensions and indicators

Income



- % individuals in lowest income decile*
- % individuals with >60% income welfare

Employment



- % unemployed in working age population
- % long-term unemployed in working age population

Education



- % early school leavers
- NEET indicator
- % working age adults with at least lower secondary degree

Housing



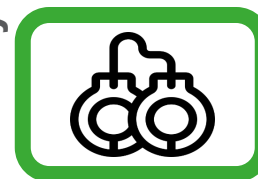
- % individuals living in dwellings:
 - <0.5 rooms per person
 - Tenants
 - Without central heating
 - Without a bathroom
- Change in (existing/new) house price index

Health



- Standardized mortality ratio
- Standardized suicide rate
- Preventable mortality fraction
- % chronically ill individuals (fee)**

Crime/safety



- Rate of property crimes
- Rate of violent crimes
- Rate of family violence crimes
- Rate of drug-related crimes
- Rate of traffic accidents

Notes

* weighted by household size

** corrected for age distribution

Overview resources

Belgian Index of Multiple Deprivation

Project website: <https://www.brain-ellis.be/>

Interactive tool: <https://bimd.sciensano.be/tool/>

Open data: <https://github.com/bimd-project/bimd>

Publications:

Otavova M et al. 2023 Measuring small-area level deprivation in Belgium: The Belgian Index of Multiple Deprivation. Vol. 45, Spatial and Spatio-temporal Epidemiology.
<https://doi.org/10.1016/j.sste.2023.100587>

For a healthy Belgium

Project website: www.healthybelgium.be

Contact

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