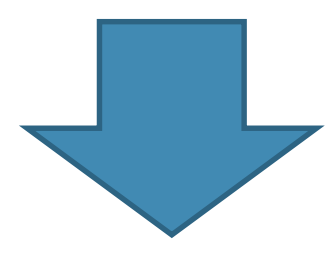


BACKGROUND

This poster presents the project where we aim to produce a socio-spatial vulnerability map of Lithuania integrating:

- Spatial data on 2021 population census
- Risk indexes from social, economic, technological, geopolitical, social and environmental risks

Vulnerability is defined as physical, social, economic or political factors that increase the sensitivity of the social system/individuals to the effects of hazards/risks (UNDRR/Prevention Web, 2017)



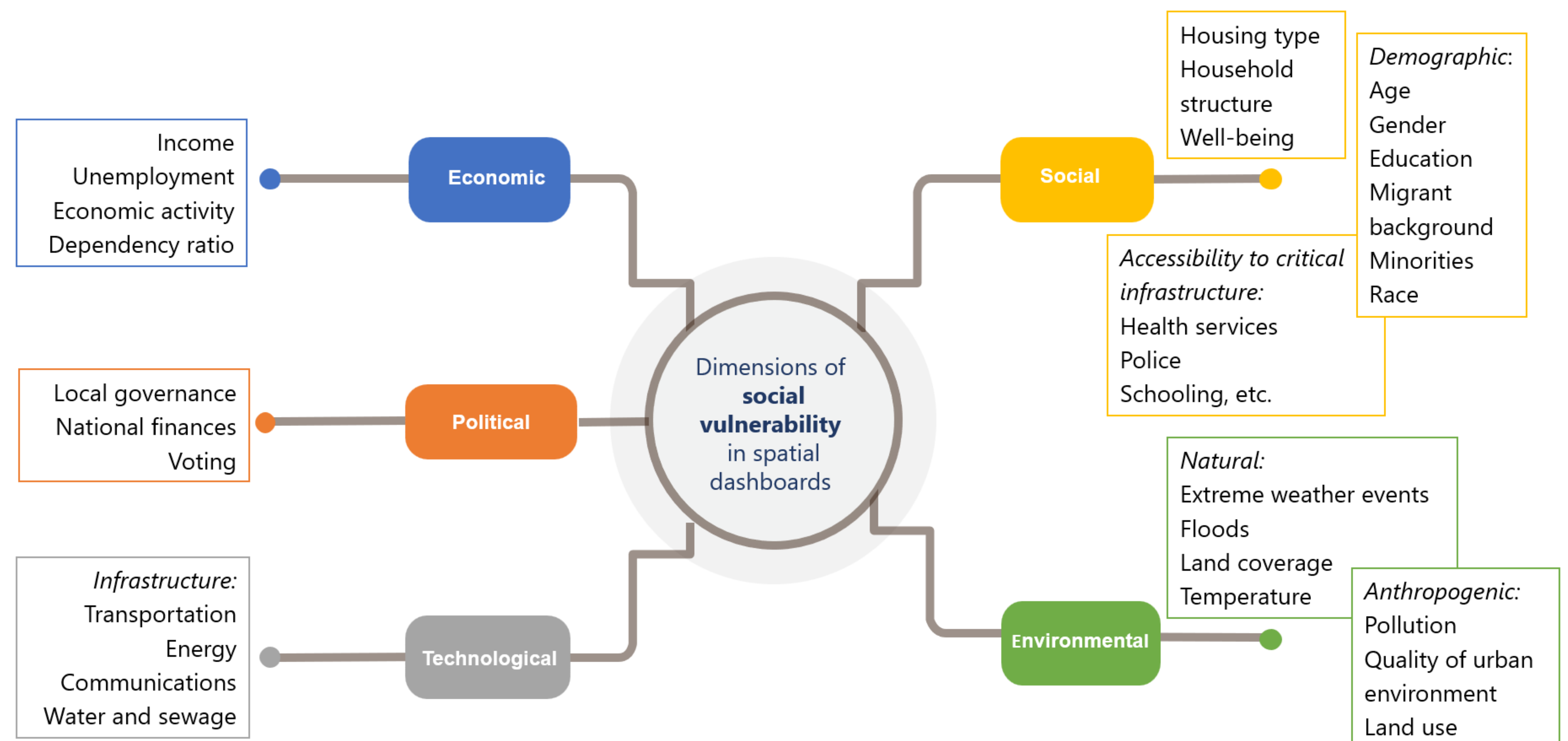
Spatial vulnerability identifies spatially vulnerable zones (in the social and physical sense)

Research steps:

- Create an inventory of social vulnerability indicators in governmental spatial dashboards
- Identify relevant indicators from Lithuanian census data
- Calculate social vulnerability index
- Create spatial vulnerability dashboards merging risks indexes and social vulnerability indexes

INVENTORY OF SOCIAL VULNERABILITY INDICATORS IN GOVERNMENTAL DASHBOARDS

Based on the screening of governmental open access dashboards at national level



METHODOLOGY OF SPATIAL VULNERABILITY INDEX IN LITHUANIA

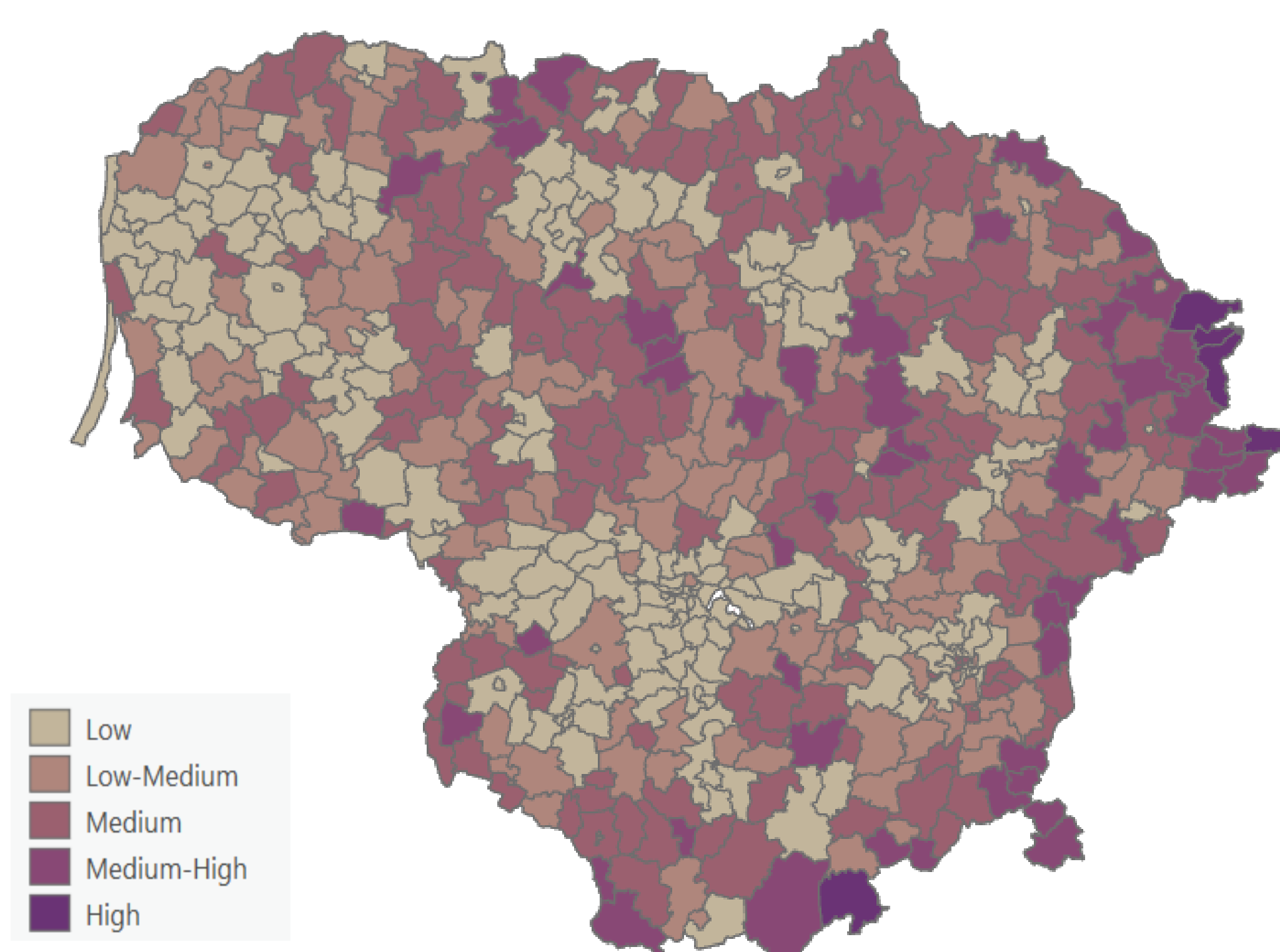
Social vulnerability is measured in 4 dimensions:

- Unemployment
- Education
- Minorities
- Dependency ratio

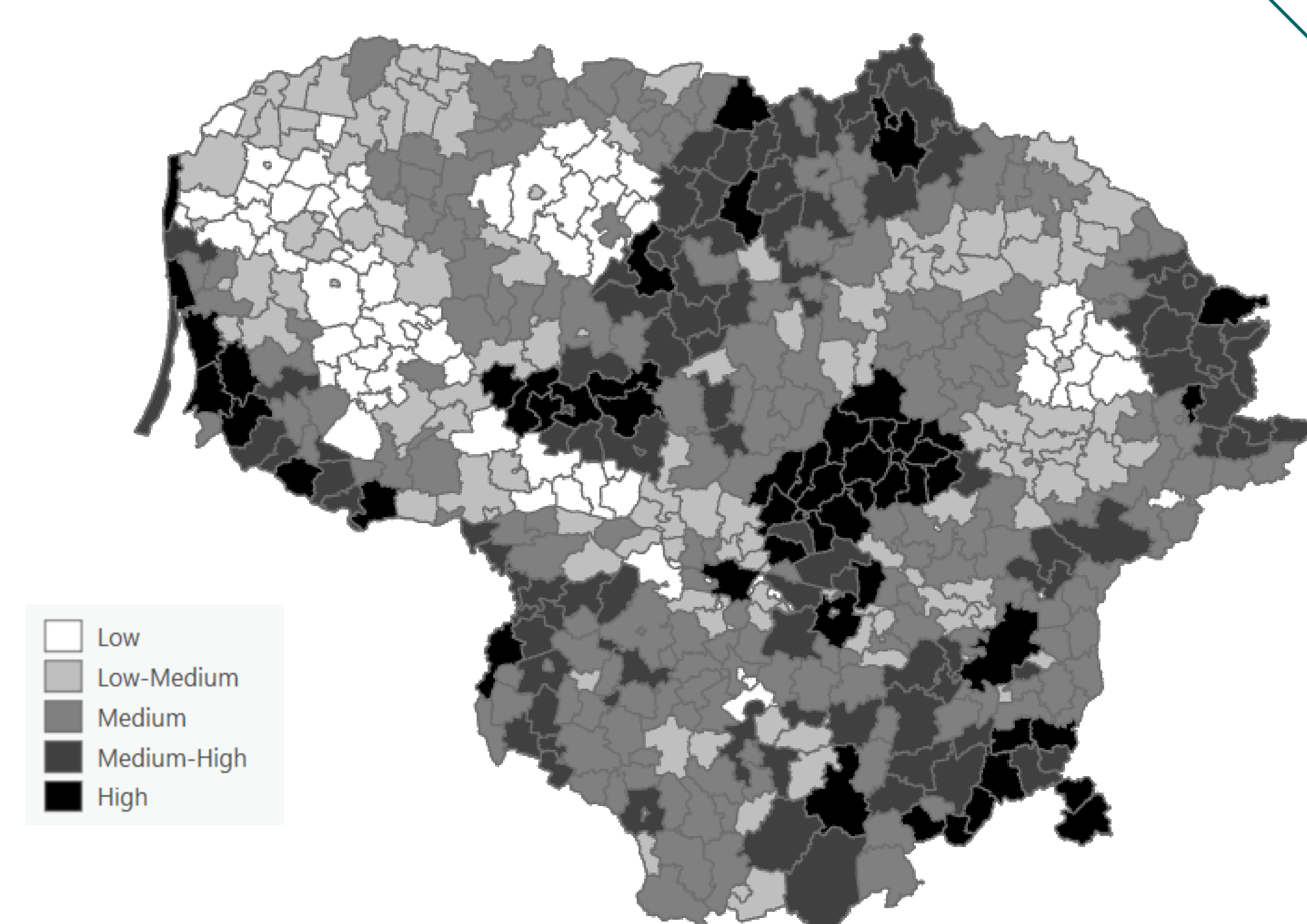
SOCIAL VULNERABILITY AND ENVIRONMENTAL RISKS

SOCIAL VULNERABILITY AND GEOPOLITICAL RISKS

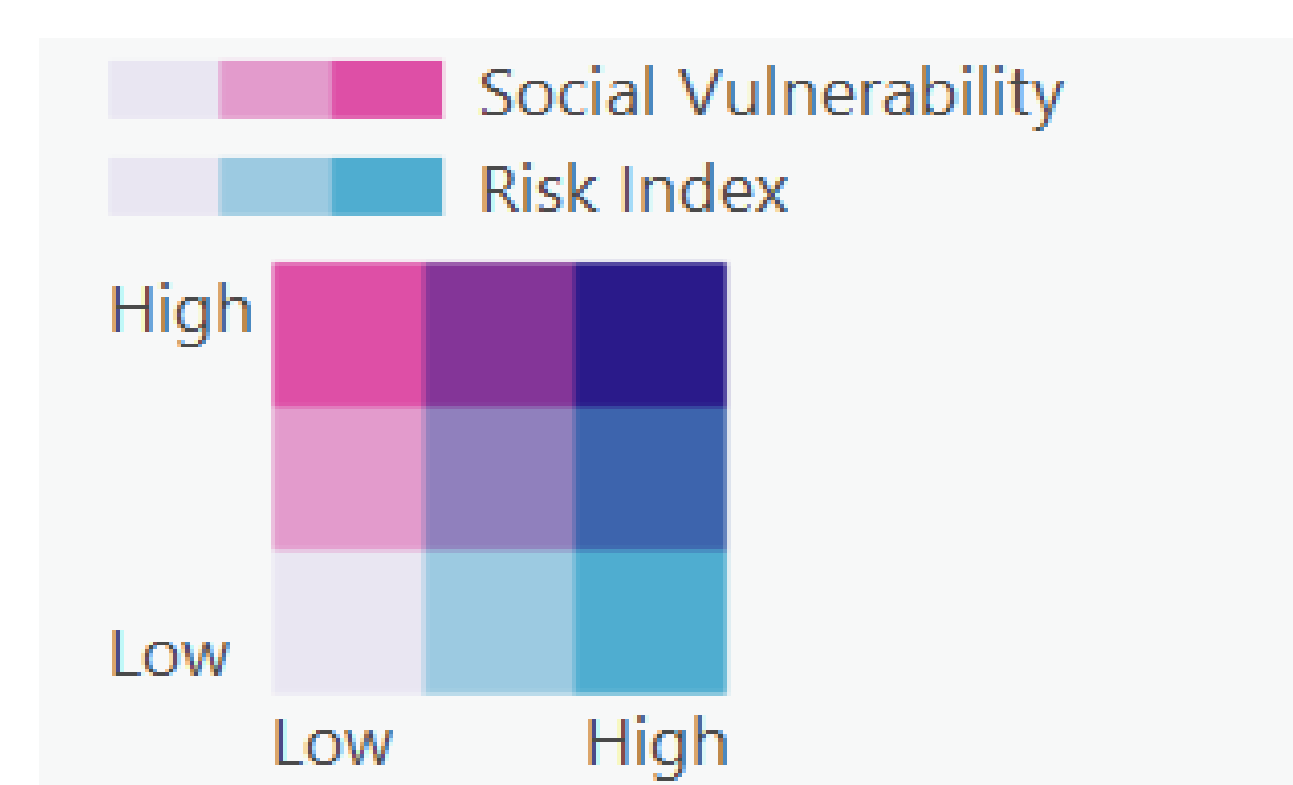
SOCIAL VULNERABILITY INDEX (5 CLASSES)



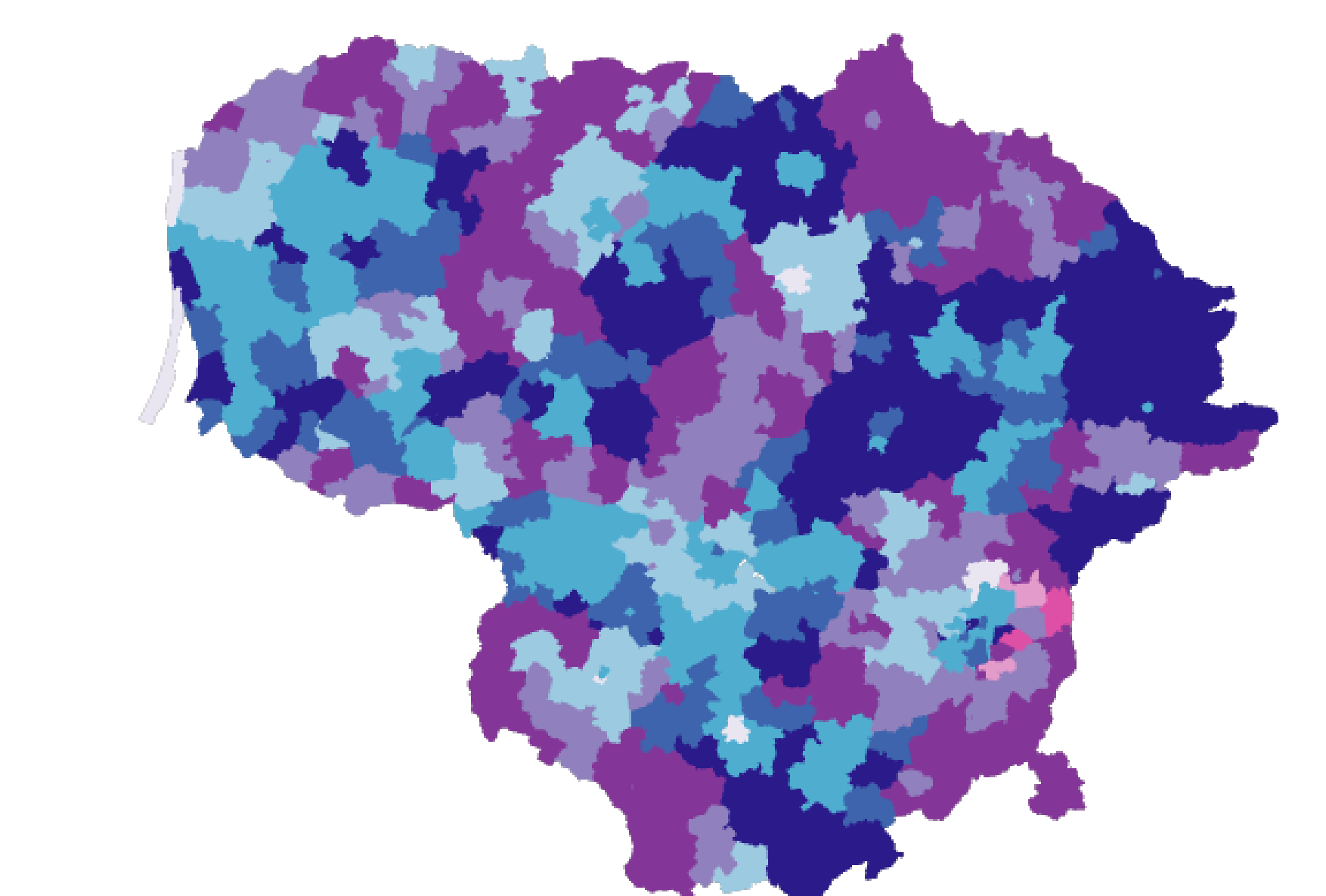
RISK INDEX (5 RISK CLASSES)



Social Vulnerability Index and Risk Index:
 - a sum of the normalized value of every indicator
 - grouped by the Natural Jenks method into five categories.
 - every category represents one of five classes



SOCIAL VULNERABILITY AND TECHNOLOGICAL RISKS



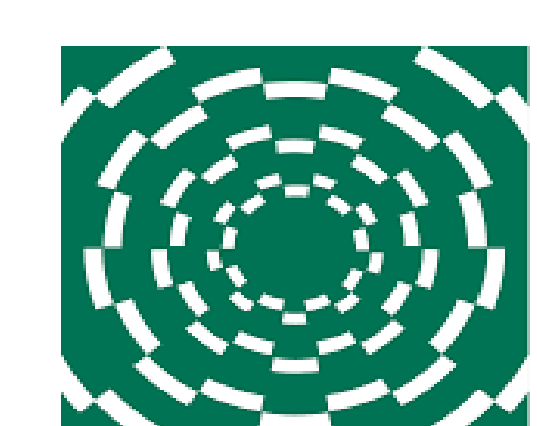
CONCLUSIONS

- Spatial vulnerabilities takes different shapes for environmental, geopolitical and technological risks
- Environmental vulnerability is highest in south – west and urbanised areas
- Geopolitical vulnerability is highest in boarder areas
- Technological vulnerability is highest in eastern regions

ACKNOWLEDGMENTS AND CONTACT

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Lietuvos mokslo taryba

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- Vulnerability (2017) UNDRR/Prevention Web