

# JESSICA initiative supporting investments aimed at sustainable urban development



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## Introduction

Many Polish cities have faced economic hardships in recent years, mainly due to structural and demographic changes. In order to counteract this tendency, a considerable number of regeneration projects have been implemented aimed at supporting sustainable urban development through integrated approach that takes up the social, economic, demographic and environmental challenges of urban areas.

However, a limited amount of available financial resources, combined with the relatively large-scale needs resulted in creating by the European Commission within the framework of EU Cohesion Policy a new instrument, i.e. JESSICA initiative (Joint European Support for Sustainable Investment in City Areas). Contrary to traditional grants, JESSICA consists in the use of revolving instruments that allow for achieving the multiplier effect of the actions

## Rationale

There is a general lack of adequate, systematic research and scientific information on JESSICA and its impact on the urban areas and sustainable development. Preliminary studies of JESSICA considered it not to be an excellent instrument for sustainable urban development. Its achievements and shortcomings are critically reviewed by inter alia Dąbrowski (2015), Bode (2015), Musiałkowska and Idczak (2016) and Nadler and Nadler (2018).

## Objectives

The key question addressed in the study is whether revolving funding instruments such as JESSICA are an effective tool for supporting urban renewal mainly with regard to the sustainable urban development approach. Hence, the purpose of this study, apart from dealing with the question above, is to advance understanding of the use of financial engineering instruments designed to accelerate investments and subsequently multiply the outcomes of EU cohesion policy

## Data

The empirical analysis builds on a dataset containing details on all projects implemented within the framework of the JESSICA initiative in Poland during the 2007 – 2015 period. This dataset was created on the basis of information made available by the Marshall Offices of all regions implementing the JESSICA initiative and institutions acting as managers of the Urban Development Funds. In addition, data regarding projects were supplemented by the results of the examination of the other sources such as project descriptions, policy reports, official websites and field studies.

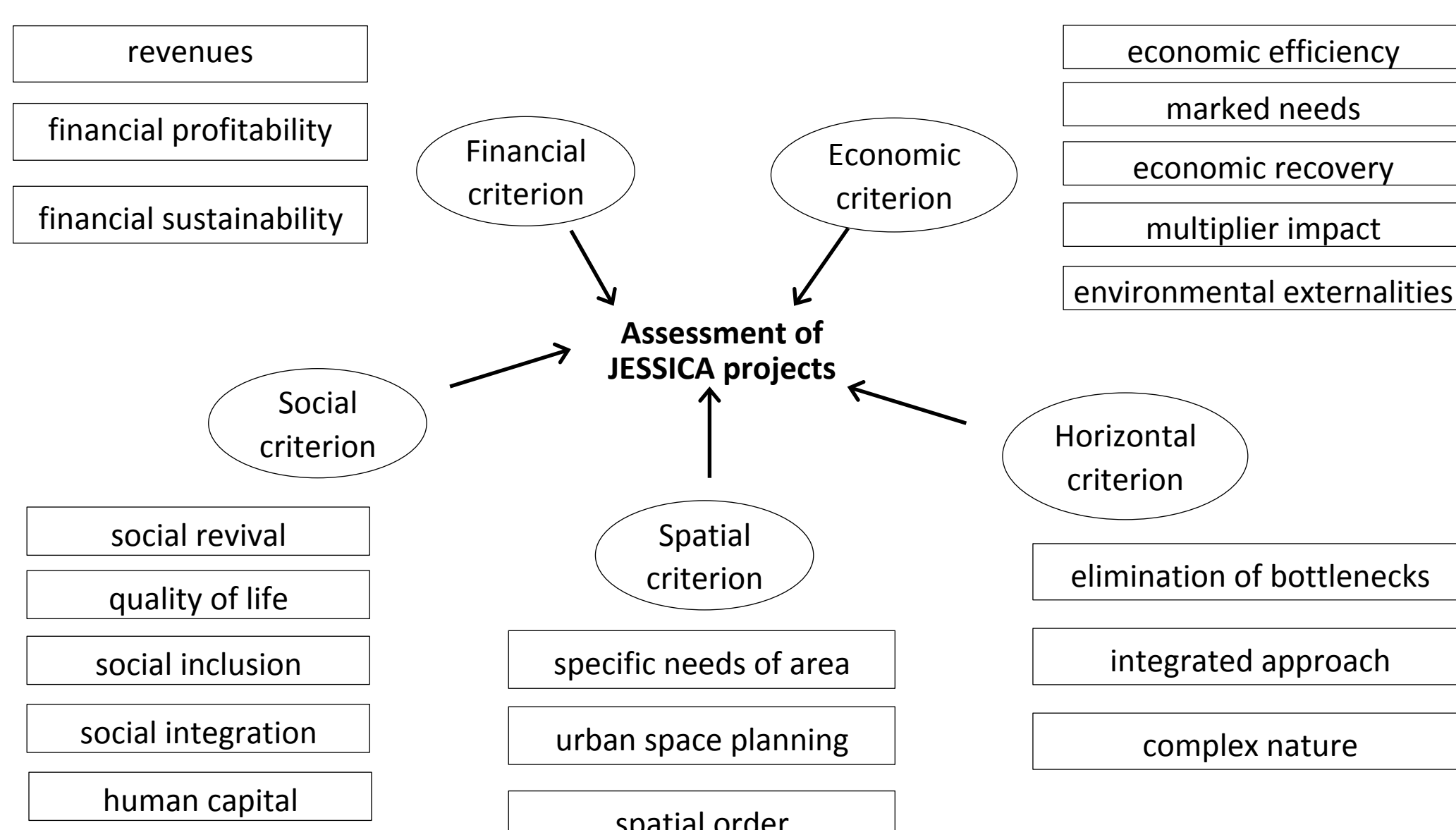


Figure 1. Methodological assumptions  
Source: Own elaboration

## Research methods

The assessment of JESSICA projects was carried out with the use of five evaluation criteria. All criteria were described by latent variables based on questions which expressed the unique importance of their distinctive characteristics (Figure 1). Answer options relied on integer values as follows: 0 – „no”; 1 – „no/yes”; 2 – „yes”. Respondents – 4 experts in European funds, urban planning and development etc.

Next steps:

- estimating the correlation between latent variables based on polychoric correlation,
- the correlation matrix taken to principal components analysis with the use of the maximum likelihood method,
- estimations of parameters, i.e. loadings taken (as weights) to construct composite indicator

## Results

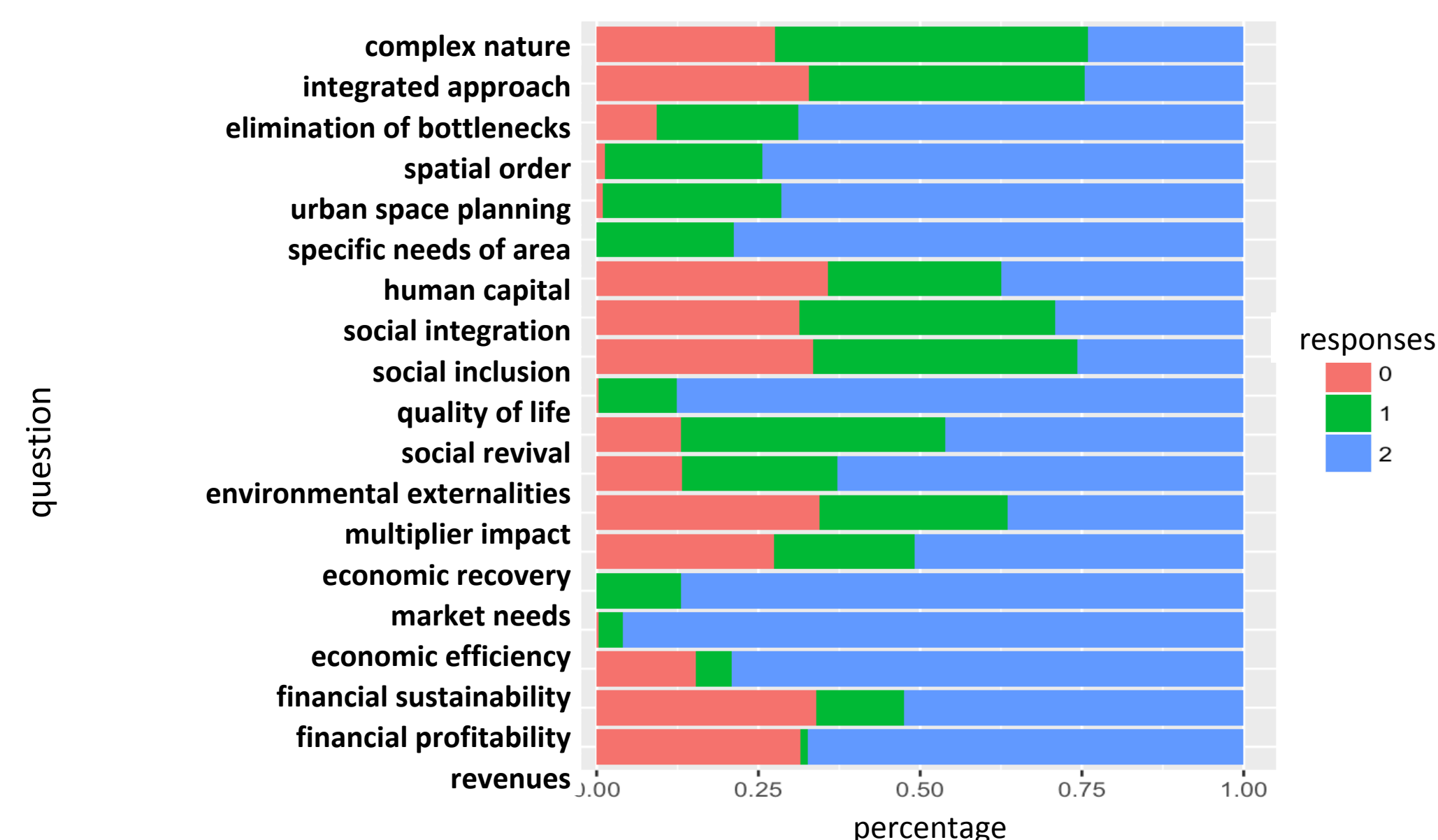
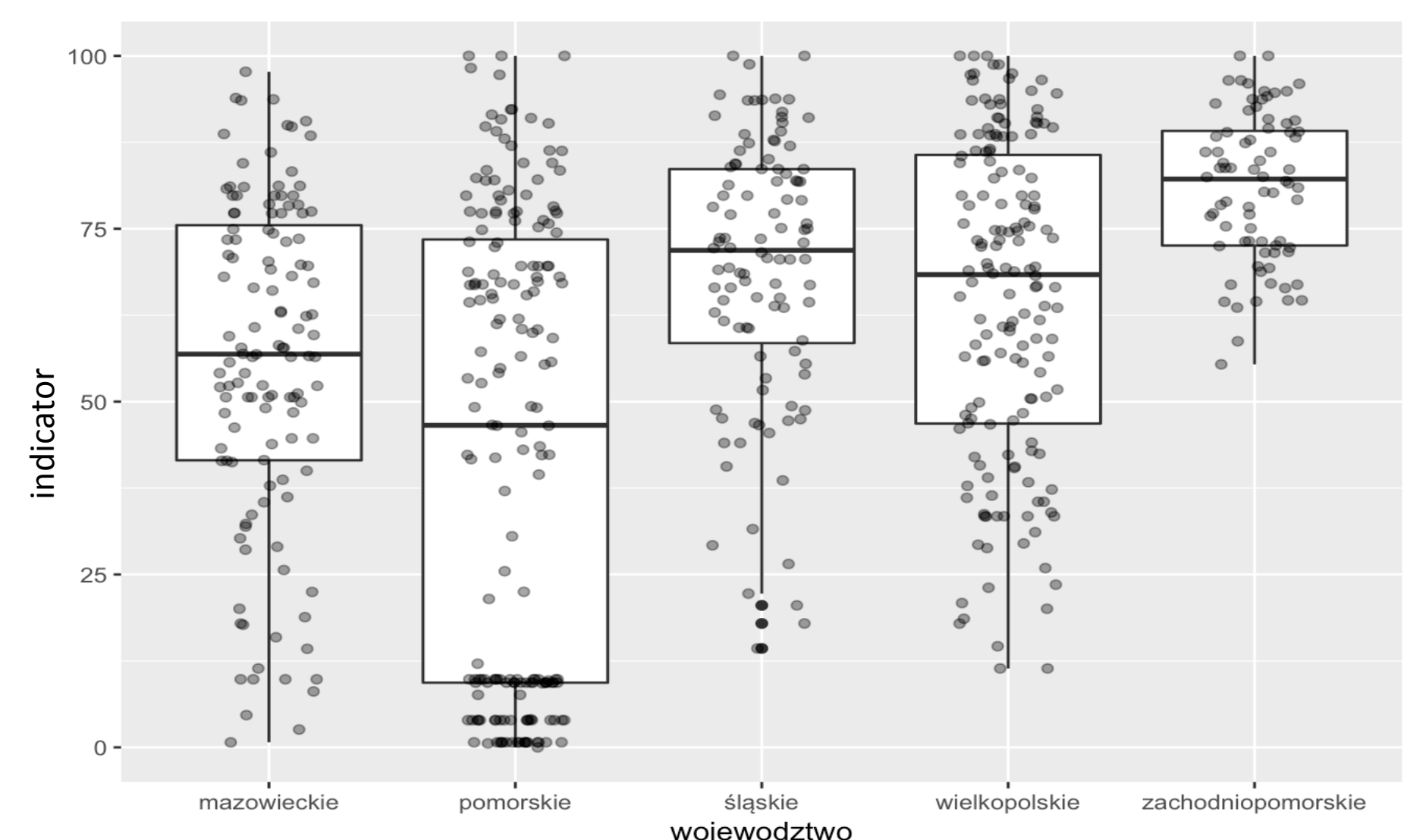


Figure 2. Assessment of JESSICA project based on adopted integer values  
Source: Own elaboration



The differences between regions are significant – based on Kruskal-Wallis chi-squared = 112.08, df = 4, p-value < 2.2e-16

Figure 3. Box plot of the indicator in regions  
Source: Own elaboration

## Conclusions

Projects implemented under the JESSICA initiative in Poland respect the spirit of this instrument as well as urban sustainability in a varied way.

There are projects, mostly executed by public entities, which do not generate profits and do not ensure the repayment of the loan based on self-financing capacity.

JESSICA projects deliver, in different ways and to differing degrees, the sustainable outcomes that are sought by cities. In many cases project were poorly tailored to frameworks designated by sustainable urban development. Projects in Zachodniopomorskie region fit to the JESSICA model in a best way. Many projects neglect the social aspects of sustainable urban development.

This study is supported by Polish National Science Centre (2015/19/D/HS5/01561) core funds.