Local Quality of Government Project

QoG Data Team

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Home

About this site

This will be filled at the end. For now I use it as a test site.

```
# This is a dummy R example
a %>%
  filter(com_id %in% c("71138", "71578")) %>%
  mutate(
    com_name = str_to_title(com_name),
    label = pasteO(
        com_name, ", France", "\n",
        "Year ",
        year, "\n",
        "Municipality Id: ",
        com_id
    )
)
```

```
import pandas as pd

df = pd.DataFrame({"name": ["Alice", "Bob"], "score": [90, 85]})
print(df.describe())
```

Project overview

Overview of the project, including both boundary changes and the data aspects

Conceptual approach

4.1 The local map of EU: History of Municipal Borders for Comparative Research

The literature identifies various types of municipal changes, which can be broadly categorized into geographical and non-geographical changes. Geographical changes involve modifications to municipal boundaries, non-geographical changes, by contrast, affect the legal identifiers of municipalities—such as names or administrative codes—without altering their physical boundaries. In some cases, such non-geographical changes occur independently, with no accompanying changes to the municipality's territory. For instance, municipalities may undergo name changes to reflect historical, cultural, or political factors, or experience adjustments to their official registry codes. constitute purely non-geographical changes, as the territorial extent remains constant while the legal attributes are updated (see Figure 4.1). Conversely, geographical boundaries may change while the municipality's legal identifiers remain unchanged. A typical example of such purely geographical changes is a territorial transfer. In some cases, however, geographical and non-geographical changes occur simultaneously—for example, during municipal mergers or splits, where a change in boundary (geo) coincides with a change in name or administrative code (non-geo).

To date, only a limited number of studies explicitly distinguish between geographical (i.e., boundary-related) changes and non-geographical modifications of municipalities in their analyses [@goerlich2018; @kociuba2023]. In most cases, researchers focus on a single type of municipal change—typically within the context of a specific territorial reform—without differentiating between changes to boundaries and changes to legal identifiers. Moreover, due to the diversity of procedures and forms that municipal changes can take, most existing studies are confined to a single country, and in some cases, even to a single administrative



Figure 4.1: Intersection of geo and non-geo changes of the municipalities

unit within that country (see [@blesse2016; @heinisch2018; @strebel2018]).

Thus, some papers focus exclusively on mergers processes: for example, in the Netherlands [@allers2016], Denmark [@hansen2014; @blomhansen2016], Finland [@moisio2013; @harjunen2021], Norway [@solvang2025], etc. Others research papers are devoted only to the splits processes: for example, in Sweden [@erlingsson2024; @brink2004], Slovenia [@baclija2021], Czech Republic [@lysek2021], Bulgaria, Croatia and Poland [@swianiewicz2024]. Some studies examine municipal mergers and splits across multiple countries [@klausen2024; @swianiewicz2019], but such cross-national research remains uncommon. Similarly, only a few studies consider both mergers and splits within a single country, for example in Hungary [@dobos2021]. However, comprehensive analyses covering both types of changes simultaneously remain relatively uncommon.

At the same time, the majority of the papers mentioned above do not focus on analyzing the changes within municipalities themselves, but rather on the causes for these changes or their consequences or effects (see Figure 4.2). As for the causes of such changes, researchers have investigated factors such as financial incentives [@strebel2018], the degree of voluntariness—whether changes were initiated by municipalities themselves or imposed top-down by higher levels of government (see [@blomhansen2016; @swianiewicz2022]), internal dissatisfaction within municipalities [@baclija2021], etc. With respect to consequences, studies have explored the impact of changes on local government spending, taxation, and service provision [@hansen2014; @allers2016; @blomhansen2016; @erlingsson2024], performance of local governments [@swianiewicz2024], political representation [@harjunen2021], voter turnout in local elections [@heinisch2018], trust in local politicians [@solvang2025], etc. A few studies attempt to address both the factors beyond the change and their potential consequences (e.g., [@swianiewicz2019]).

This project aims to provide a comprehensive analysis of all identifiable types of municipal-level changes across EU countries during the period 2014–2024. Our approach relies on the systematic comparison of municipal shapefiles from official country sources, offering a novel geo-based method for detecting and classifying these changes. While we do not seek to explore the underlying causes

4.1. THE LOCAL MAP OF EU: HISTORY OF MUNICIPAL BORDERS FOR COMPARATIVE RESEARCH9



Figure 4.2: How we can understand the process of change: from causes to consequences.

or motivations for each type of change, nor their broader consequences, our analysis enables a comparative assessment of the scale and distribution of these changes—both within individual countries and across the EU as a whole.

One of the main challenges we encountered was the absence of a unified and widely accepted typology of municipal changes in the academic literature. While some attempts have been made to address this gap—most notably in the contexts of Poland, Spain and the Czech Republic [@kociuba2023; @goerlich2018; @paszto2020]—they remain limited in scope. Thus, among the three studies listed above, the study by Goerlich and Ruiz (2018) is particularly relevant to our project, as it proposes a typology of boundary changes in Spanish municipalities between two points in time and distinguishes between territorial and non-territorial changes. However, this approach has certain limitations. First, it is based on a single-country case study, which limits its ability to capture the full range of municipal changes that may occur across different EU countries. Second, the temporal scope of the analysis (1842–2001) restricts its relevance for understanding more recent developments and complicates systematic cross-national comparisons.

Our project addresses these limitations by developing a harmonized typology of municipal changes that can be applied across EU member states and over a consistent time frame. This typology may serve as a foundation for more systematic, comparative studies of municipal restructuring across the EU. To date, no comprehensive source has been identified that captures the full range of municipal changes (geographical and non-geographical) that have occurred in EU countries over the past decade. Moreover, there is a lack of harmonized data that would allow for a detailed examination of how such changes are distributed. This gap in the literature limits the capacity for systematic and comparative assessments of municipal transformations at the EU level.

This project seeks to address this gap through two main objectives. First, it introduces a new classification that systematically categorizes municipal changes in the EU since 2014. This classification encompasses both territorial changes and non-territorial changes, including name changes and updates to administrative codes. Second, the project applies this classification to all EU countries to

illustrate the distribution and frequency of these changes across them.

4.2 References

$\begin{array}{c} {\rm Part~I} \\ {\rm Methodology} \end{array}$

Methodological Overview

Definition of Unit of Analysis

Code-Based Change Identification

Legal Verification of Changes

Data System

Limitations

Part II

Results

Classification of Municipal Changes in the EU (2014–2024)

11.1 Geographical changes

11.1.1 1. Municipalities are created and dissolved ¹

Change

Sub-Change

Explanation

Merger

Simple

The creation of a new municipality whose territory results from the union of two pre-existing municipalities.

Multiple 2

The creation of a new municipality whose territory results from the union of more than two pre-existing municipalities.

 $^{^1\}mathrm{We}$ consider each change category as a relationship between two points in time — the situation before and after the change — and classify transformations based on whether municipalities were dissolved (i.e., ceased to exist as independent administrative units) or created (i.e., new administrative units were formed as a result of the change).

²The distinguishing factor from a simple merger is explicitly quantitative (more than two pre-existing municipalities involved), reflecting increased administrative, political, social, and economic complexity due to negotiations among multiple governing authorities.

Split ³

Simple

The dissolution of one municipality, whose territory is divided among two newly established municipalities, neither of which retains the legal or administrative aspects of the original entity.

Multiple

The dissolution of one municipality, whose territory is divided among more than two newly established municipalities, none of which retains legal or administrative aspects of the original entity.

Composite restructuring ⁴

The simultaneous dissolution of one or multiple municipalities and the merger of their entire or partial territories, along with other pre-existing municipalities, into newly created municipalities.

11.1.2 2. Municipalities are created and are not dissolved

Change

Sub-Change

Explanation

De-Merger ⁵

Simple

The re-establishment of one municipality that had previously participated in a merger (either simple or multiple) into a new, separate municipality whose territory exactly matches its original boundaries prior to the merger, thereby fully reversing the territorial effects of its inclusion in that merger

Multiple

The re-establishment of more than one municipality that had previously participated in a merger (either simple or multiple) into a new, separate municipalities whose territories exactly match their original boundaries prior to the merger, thereby fully reversing the territorial effects of its inclusion in that merger.

³The dissolved municipality ceases to exist in legal and administrative terms. Unlike dissolution, all resulting municipalities are new creations, regardless of whether they retain parts of the name, code, or territory. Unlike separation (secession), no part of the original unit is recognized as its legal continuation.

⁴The key feature is that no resulting municipality is pre-existing (all are established as part of the merger process, and some are composed of parts of previously dissolved municipalities).

⁵This conceptual framework is designed for a study specifically tracking territorial changes in municipalities across Europe within a defined 10-year period (2014–2024). Events falling partially or fully outside this period, although potentially meeting conceptual definitions, are explicitly noted but classified separately due to the temporal constraints of the current project.

Separation (secession) ⁶

Simple

The creation of a new municipality through the separation of a part of the territory from one municipality, which continues to exist.

Multiple

The creation of a new municipality through the separation of a part of the territory from more than one municipality, all of which continue to exist.

11.1.3 3. Municipalities are dissolved and are not created

Change

Sub-Change

Explanation

Dissolution ⁷

Simple

The dissolution of one municipality and the distribution of its territory among two municipalities, neither of which is newly created. The original municipality ceases to exist as a legal-administrative entity.

11.1.4 4. Municipalities are neither created nor dissolved

Change

Sub-Change

Explanation

Nature integration

simple

The integration of a previously non-municipal territory, such as a national park, forest, or uninhabited administrative zone, into two existing municipalities.

multiple

⁶The key criterion is the identification of legal or administrative acts of creation. Separation (secession) occurs when the relevant legislation explicitly establishes one or more new municipalities while affirming the continuity of the remaining original municipality. Continuity can be inferred when the remaining entity is not replaced, regardless of whether it retains the same name or administrative code. In cases where legal records are unclear or unavailable, territorial majority may be used as a secondary criterion: if the remaining municipality retains more than 50% of the original area, it may be treated as the continuation of the original unit. This approach ensures consistency across jurisdictions, even where naming conventions or coding systems vary.

 $^{^7\}mathrm{Unlike}$ split, no new municipalities are created.

The integration of a previously non-municipal territory, such as a national park, forest, or uninhabited administrative zone, into more than two existing municipalities.

Territorial transfer

National Transfer

The transfer of part of the territory of one municipality to another, without receiving territory in return, within the same country.

National Exchange

The one-time exchange of territories between two municipalities within the same country.

International Transfer

The transfer of part of the territory of one municipality from one country to another municipality in a neighboring country, without receiving territory in return.

International Exchange

The one-time exchange of territories between two municipalities from neighboring countries.

11.2 Non-geographical changes

All four categories presented above represent situations where municipal boundaries are changing. However, sometimes geographical changes occur simultaneously with changes in the municipalities' legal identifiers (such as code, name, or both). Typical examples include mergers or splits, where boundary changes are accompanied by the municipality's name or code changes. Sometimes the geographical boundaries of a municipality change, while its legal identifiers remain the same. Typical examples include all territorial transfer situations. And sometimes, municipalities' boundaries may remain unchanged while its legal identifiers are modified. We have classified these situations into the following category:

Change

Sub-Change

Explanation

Non-geo

Change name

The change of a municipality's name.

Change id

The change of a municipality's id.

Change id

The change of a municipality's id.

11.3 Download table

Download table in PDF:

11.4 Notes

32 CHAPTER~11.~~CLASSIFICATION~OF~MUNICIPAL~CHANGES~IN~THE~EU~(2014-2024)

Merger

12.1 Simple

12.1.1 Definition

The creation of a new municipality whose territory results from the union of two pre-existing municipalities

12.1.2 Implication of the change

Pre-change (year t):

• Municipalities A (with code identifier 1) and B (with code identifier 2) exist as separate entities, each with its own name, code, and territory.

Post-change (year t + 1):

- A and B are extinct.
- Municipality C is established, covering the combined territory of A and B
- C either carries forward one predecessor's name/code or receives a new name/code.

12.1.3 Example

Establishment of new Municipality (Commune in French) Clux-Villeneuve with code identifier x. The new municipality was formed by the union of municipalities Clux and La Villeneuve. The changed is backed by the prefectural decree dated September 23, 2014, taking effect from January 1, 2015.

Download the legal backing of the change

Visit Official Resource

- 12.1.4 Plots
- 12.2 Diagram
- 12.3 Static map

Before

After

12.4 Interactive map

<folium.folium.Map at 0x112d76240>

- 12.4.1 How it is recorded in the data system
- 12.5 Multiple
- 12.5.1 Definition
- 12.5.2 Implication of te change
- 12.5.3 Example
- 12.5.4 How it is recorded in the data system

Split

Composite restructuring

De-merger

Separation

Dissolution

Nature integration

Territorial Transfers

Non Geographical Changes

Part III

Data

Data Structure Overview

Instructions for Linking Datasets

Details of the Geographic Datasets

Details of the Main Metadata

Other Auxiliary Files

Conventions and Standards

Use Cases/Use Cases and Analysis

Changelog and Updates

Glossary

Current activities

What the team is doing currently

- Papers
- Conferences

Project Status

Page for Victo's graph tests

This will be removed

32.1 Static map example

Before

After

32.2 Interctive map example

<folium.folium.Map at 0x126b1b320>

Graphing Tool