

# Challenge 2: 'Transparency in public procurement'

A Knime / Power BI Project

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# Agenda

1. Introduction to the European public procurement  
and project goals
2. Technical part
3. Presentation of final results

# Introduction

# What Is Public Procurement?

Public procurement refers to the process by which public authorities, such as government departments or local authorities, purchase work, goods or services from companies.

# Why Is Public Procurement Important?

- Over 250,000 public authorities in the EU involved
- Public procurement accounts for 14% of the EU's GDP (around €2 trillion per year)

# Transparency In Public Procurement

- Through measurement of the participation of small and medium-sized enterprises (SMEs) in public procurement.
- Identification of number of single bidders per award.
- Tracking of procedures followed, including awards without prior publication of a contract notice (AWP) and negotiations without a call for competition (NOC/NOP).

# Project Goals

- Perform a market analysis, spotting economic and market trends.
- Creation of scoreboard/index with least-to-most transparent countries

# Technical Part



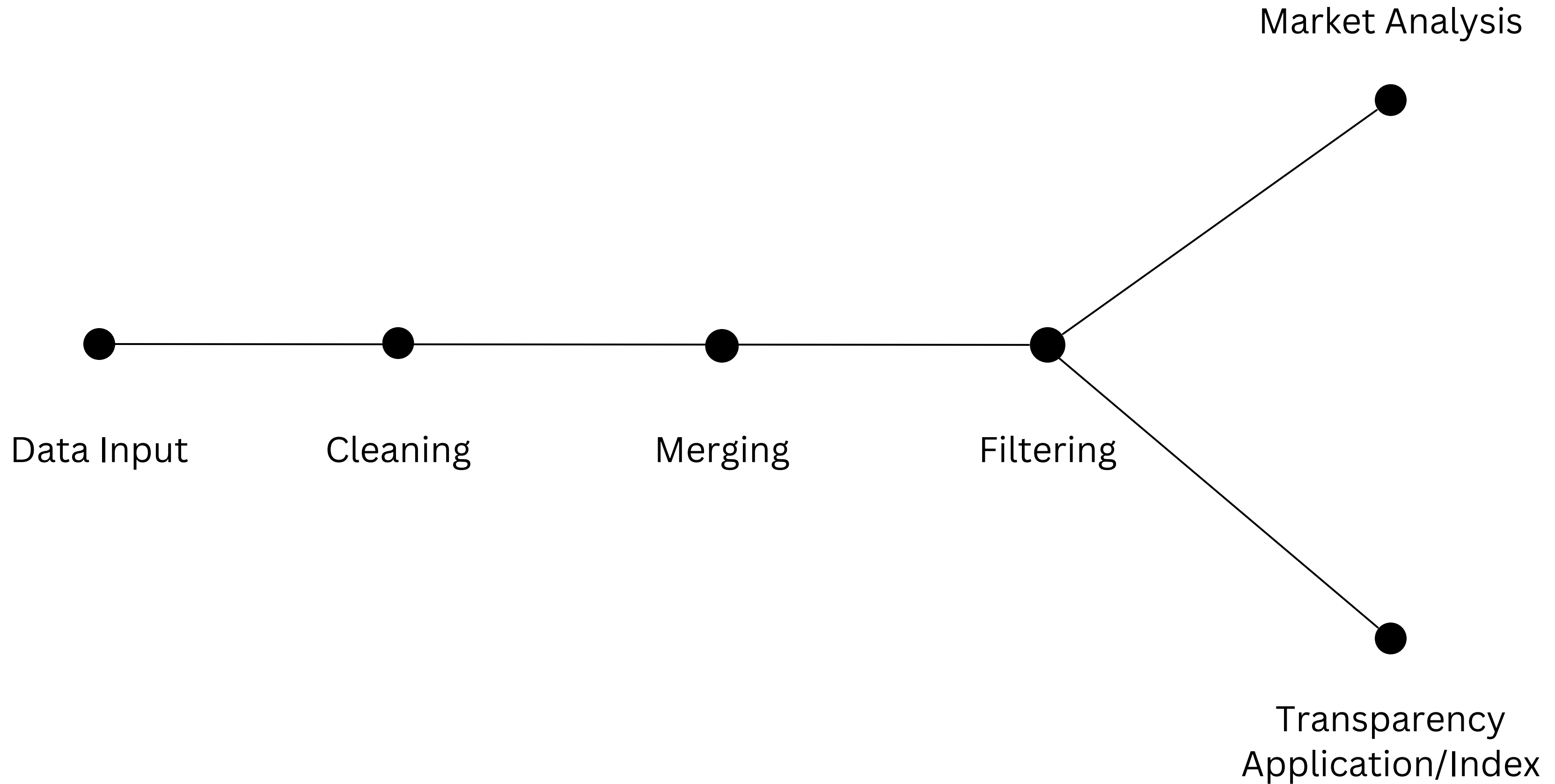
# Tools Used

- Knime
- Power BI

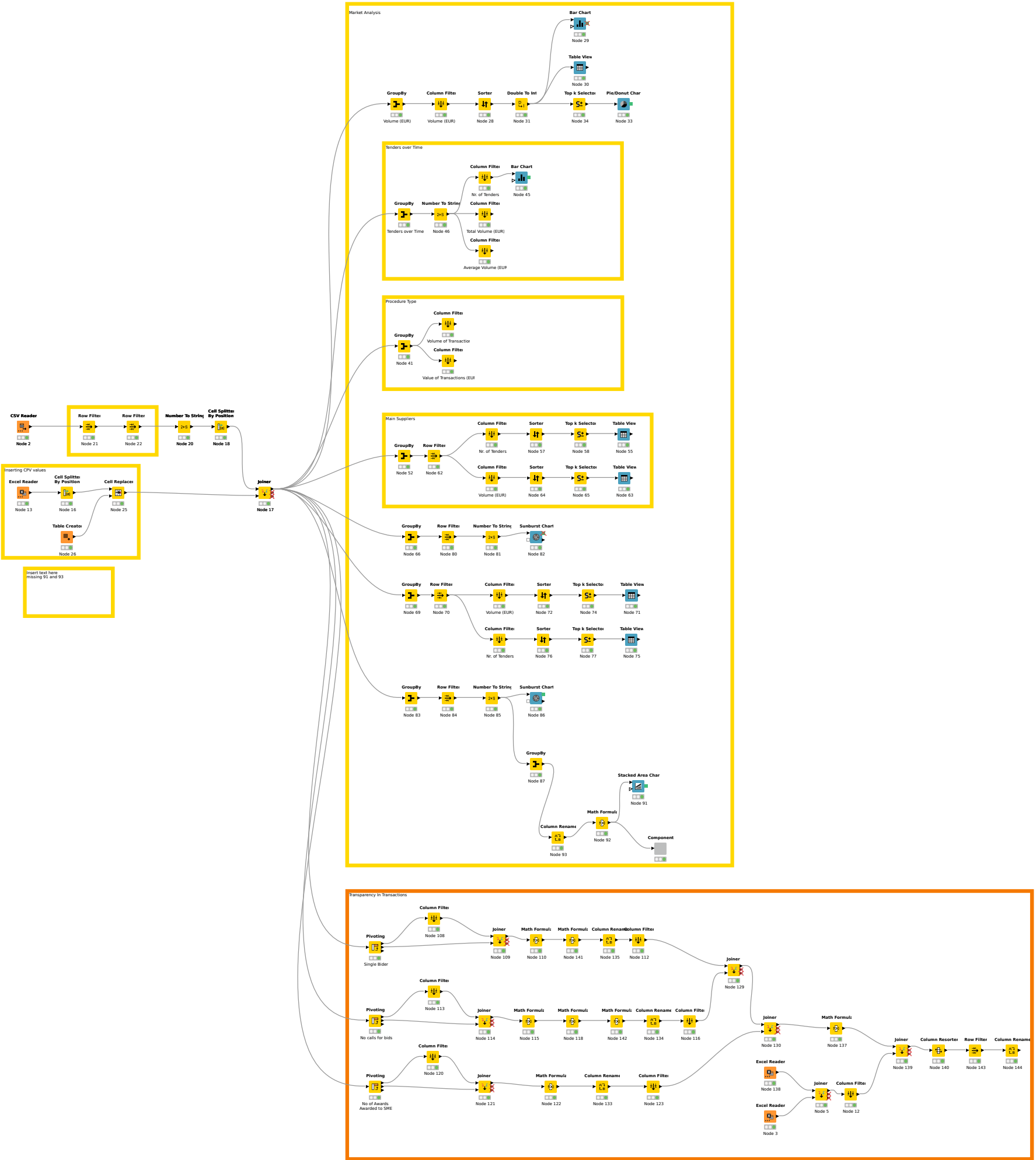
# Datasets

- TED Contract award notices 2017 - 2021
- Corruption Perceptions Index
- Standard and Poor's (S&P) Sovereign Risk Indicators

# Knime Workflow



# Knime Workflow



# Final Results

MARKET ANALYSIS

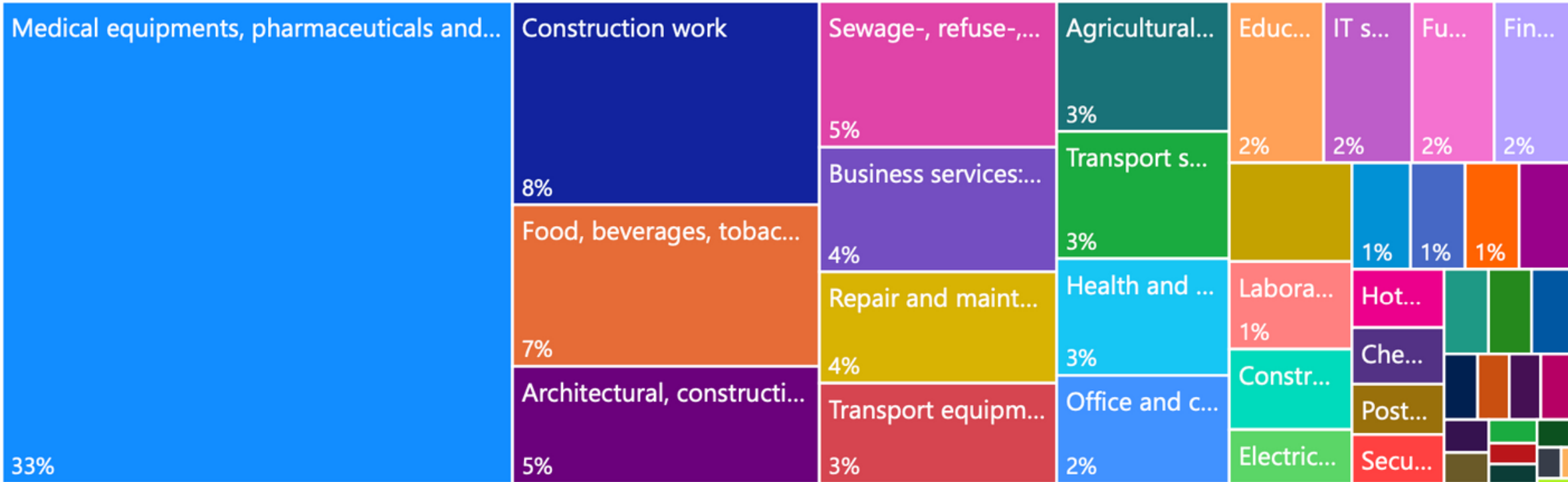
AWARDS VALUE (EUR)

676.42T

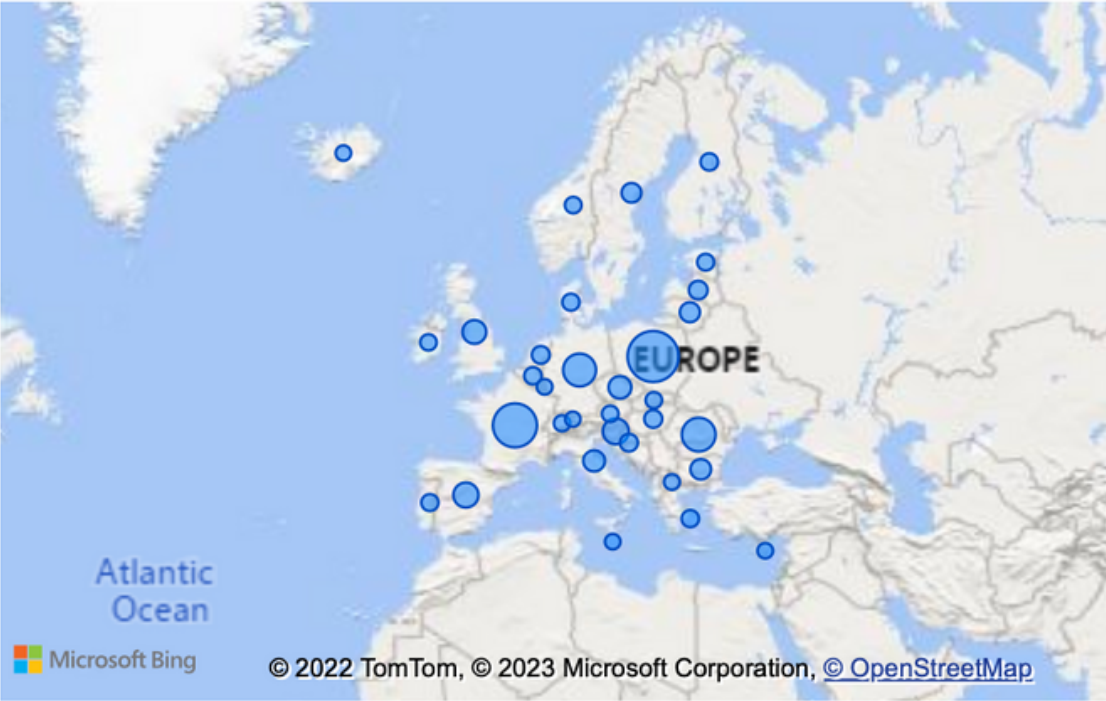
AWARDS VOLUME

3.28M

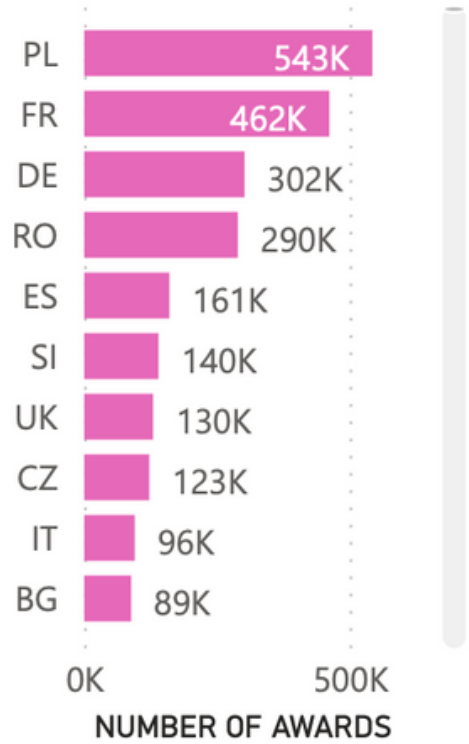
VOLUME BY SECTOR



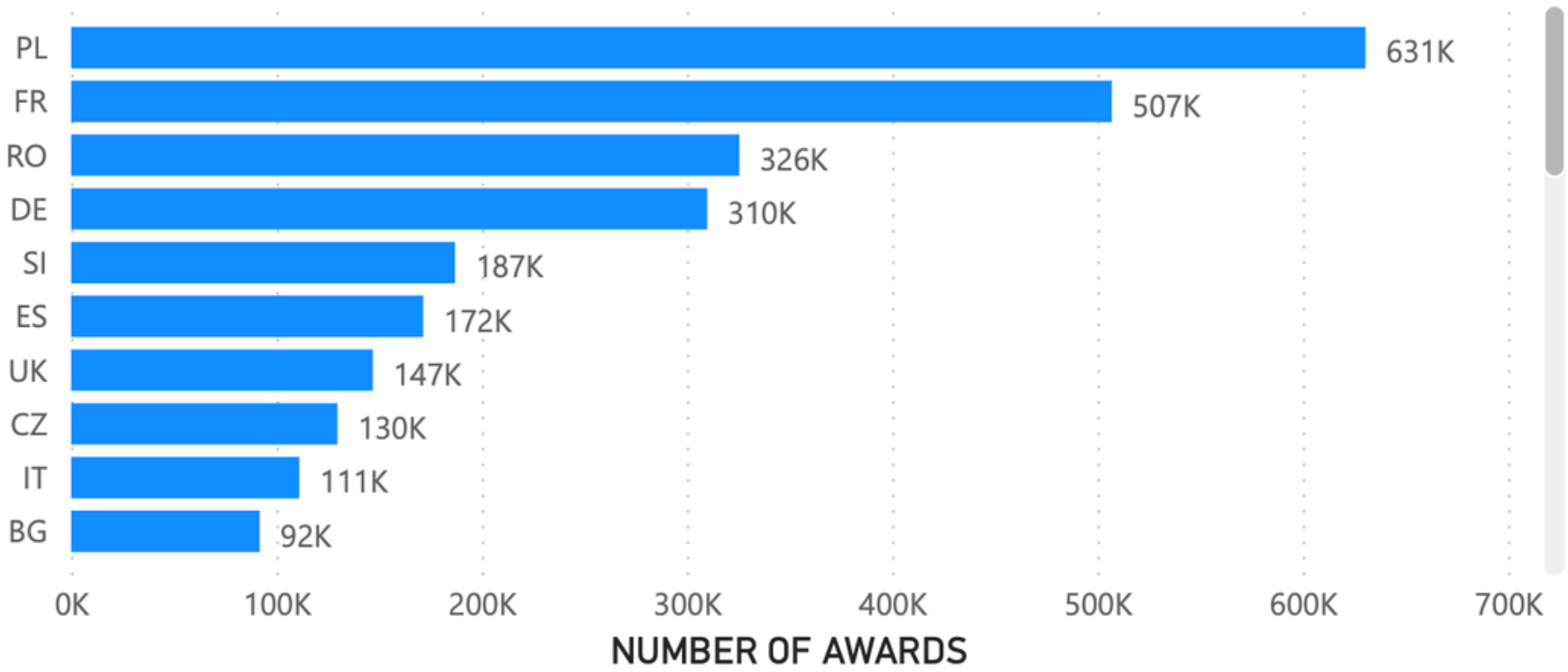
VOLUME BY MARKET



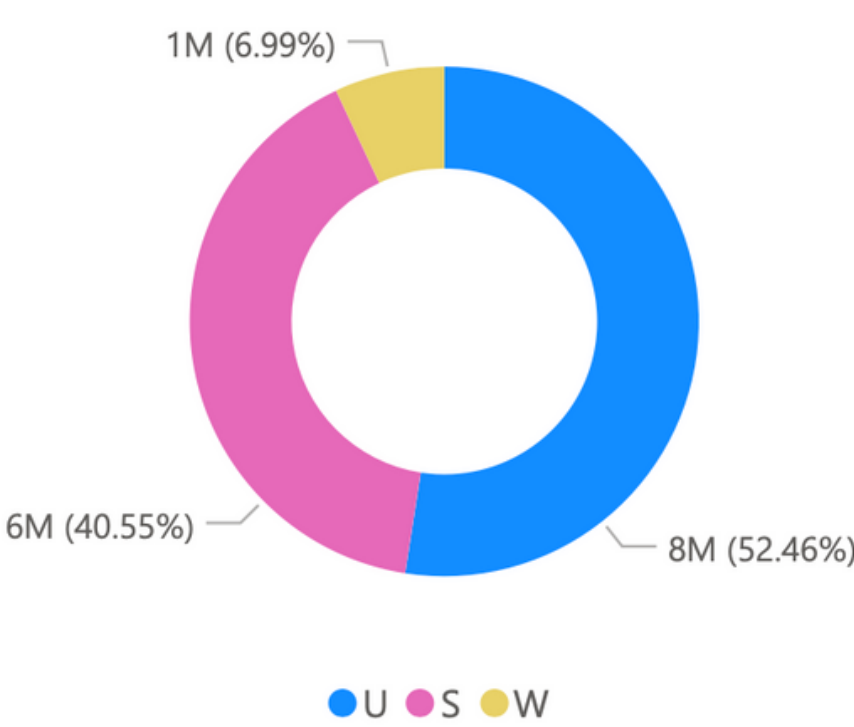
MAIN SUPPLIERS



MAIN BUYERS



TYPE OF CONTRACT



# TRANSPARENCY APPLICATION

Country	Country Code	Total No of Awards	Percent of No Calls For Bids	Percent of Single Bider	Percent of SME Contractors	CPI score 2021	S&P Rating	Score	Risk
Ireland	IE	20401	2	8	67	74	AA-	86	Low Risk
Latvia	LV	59975	3	23	83	59	A+	86	Low Risk
Sweden	SE	84556	1	8	61	85	AAA	84	Low Risk
Slovakia	SK	18619	3	24	72	52	A+	82	Low Risk
Estonia	EE	27186	4	21	69	74	AA-	81	Low Risk
Lithuania	LT	82559	2	21	66	61	A+	81	Low Risk
Netherlands	NL	44445	6	16	57	82	AAA	78	Average Risk
Finland	FI	37407	2	12	46	88	AA+	77	Average Risk
Norway	NO	23927	1	11	41	85	AAA	76	Average Risk
Denmark	DK	35209	3	17	45	88	AAA	75	Average Risk
Luxembourg	LU	5927	7	19	51	81	AAA	75	Average Risk
Germany	DE	339603	5	21	48	80	AAA	74	Average Risk
Bulgaria	BG	92361	12	33	63	42	BBB	73	Average Risk
Austria	AT	25606	7	21	45	74	AA+	72	Average Risk
Hungary	HU	45469	3	40	58	43	BBB	72	Average Risk
France	FR	533362	6	17	37	71	AA	71	Average Risk
Croatia	HR	44371	2	27	37	47	BBB+	69	Average Risk
Belgium	BE	40655	3	20	23	73	AA	67	Average Risk
Poland	PL	635459	2	50	52	56	A-	67	Average Risk
Spain	ES	178149	7	25	34	61	A	67	Average Risk
Greece	GR	34794	0	35	33	49	BB+	66	Average Risk
Portugal	PT	31098	6	25	30	62	BBB+	66	Average Risk
Slovenia	SI	187023	2	59	57	57	AA-	65	High Risk
Italy	IT	114518	5	30	27	56	BBB	64	High Risk
Romania	RO	325622	2	28	18	45	BBB-	63	High Risk

Ireland

First Country

86

Max of Score

Score is a sum of scores for 4 individual indicators. The indicators are: Percentage of of Single Bider, percentage of No Calls For Bids, Total no of Awards Awarded to SME Contractors and Corruption perception index 2021.

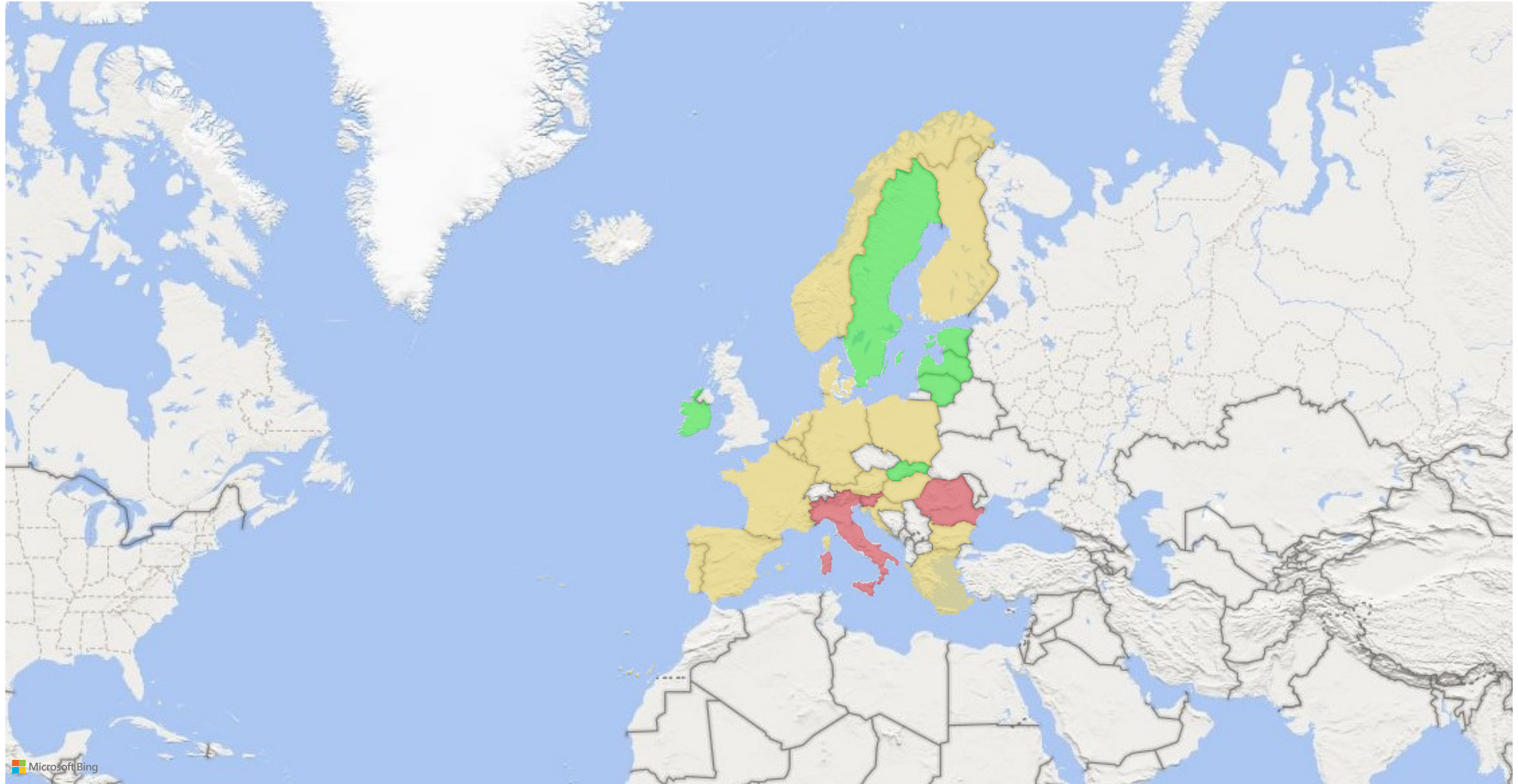
The indicators were chosen on the basis of being linked with competition, transparency and market access – the core principles of good public procurement.



# TRANSPARENCY APPLICATION

Country and Risk

**Risk** ● Average Risk ● High Risk ● Low Risk



**Thank you!**