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Open Geospatial Data (Drivers and Trends)

TED4LAT Doctoral Summer School 14-18 of July 2025, Valmiera, Latvia

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Open Geospatial Data

Open data and content can be freely used, modified, and shared by anyone for any purpose
https://opendefinition.org/

Open (Government) Data refers to the information collected, produced or paid for by the public bodies (also referred to as Public Sector Information) and made freely available for re-use for any purpose. The licence will specify the terms of use.

It is important to note that not all of the public sector information is Open Data.

https://data.europa.eu/en/dataeuropa-academy/what-open-data

Geospatial - relating to information that is associated with a particular location
https://www.oxfordlearnersdictionaries.com/definition/english/geospatial?q=geospatial

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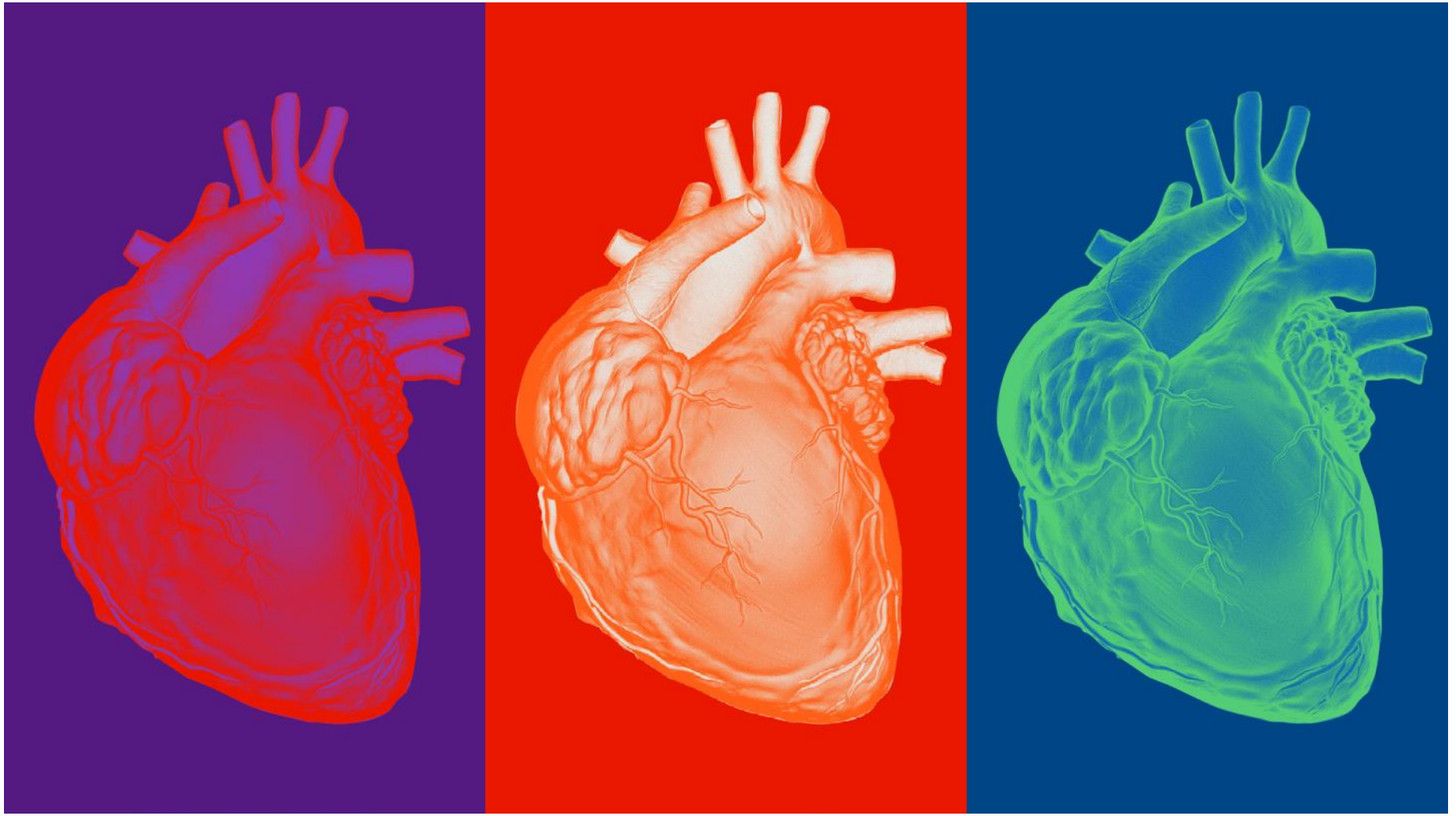
Geospatial Knowledge at the **heart** of tomorrow's sustainable digital society



https://geospatialworld.net/gw-assets/pdf/GKI-White-Paper.pdf

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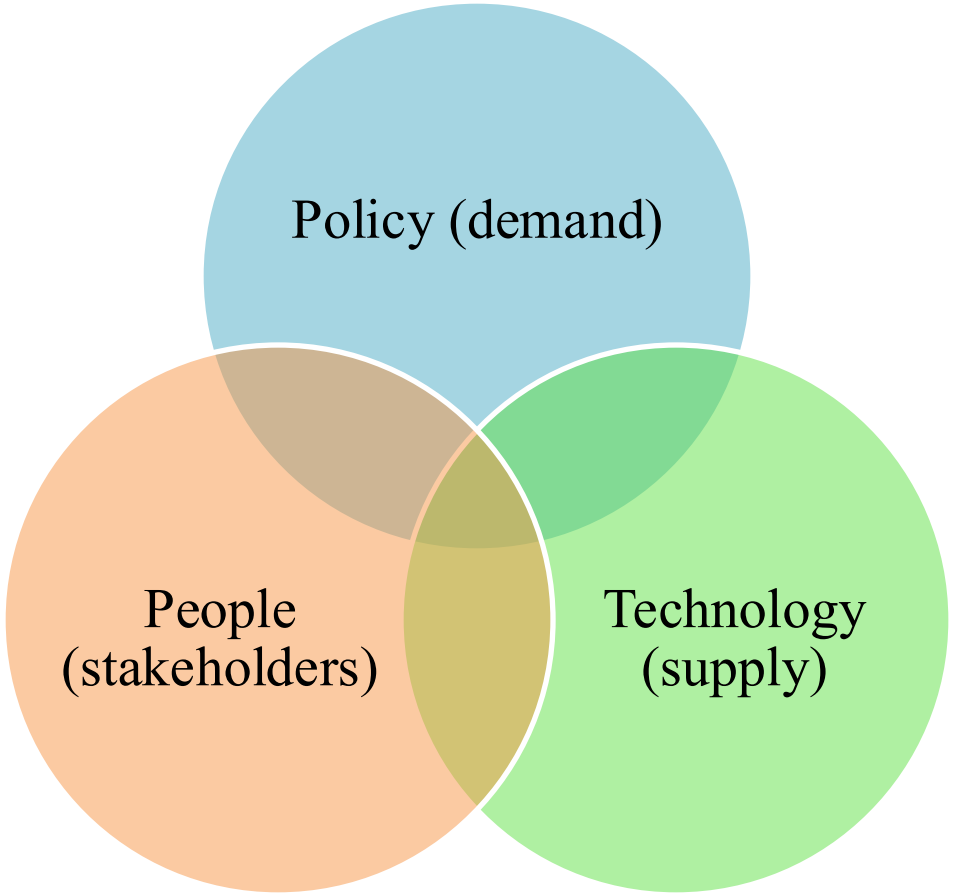
Drivers



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Policies

The 2030 Agenda for Sustainable Development (https://sdgs.un.org/goals)

Sendai Framework for Disaster Risk Reduction (https://www.undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030)

Paris Agreement on Climate Change (https://unfccc.int/)

Directive (EU) 2019/1024 of the European Parliament and of the Council of 20 June 2019 on open data and the re-use of public sector information

Commission Implementing Regulation (EU) 2023/138 of 21 December 2022 laying down a list of specific high-value datasets and the arrangements for their publication and re-use (Text with EEA relevance)

GreenData4All – updated rules on geospatial environmental data and access to environmental information

We are witnessing the rise of political power that breaking long-established norms, rules, and expectations in both politics and geopolitics, but we tray to ignore that

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UN-GGIM
Strategic Framework 2025-2030

AMBITION & FOCUS	**VISION**	**Positioning geospatial information to address local to global challenges**					
	MISSION	**Ensure geospatial leadership, resources and capabilities are coordinated, integrated, sustainable, accessible, and useable by Member States and society to address national priorities, sustainable development, and the post-2030 and future development agendas, leaving no one behind.**					
	STRATEGIC GOALS & OBJECTIVES	Leading global geospatial information management policies, frameworks and arrangements	Enabling an environment for partnership and collaboration for Member States and the global geospatial community	Strengthening global availability, accessibility and application of geospatial data to bridge the geospatial digital divide	Accelerating the use, integration, and implementation of geospatial data, standards, technologies, and methods	Implementing United Nations geospatial mandates in the context of current and future development agendas	Strengthening the Committee's global architecture and global geospatial cooperation

DRIVERS & PRIORITIES	**GLOBAL POLICY AGENDAS**	**Transforming our World: The 2030 Agenda for Sustainable Development**					
		Sendai Framework for Disaster Risk Reduction 2015-2030	**Paris Agreement on Climate Change**	**Addis Ababa Action Agenda**	**HABITAT III Urban Agenda**	**Our Ocean, Our Future: Call for Action**	**ABAS: A Renewed Declaration for Resilient Prosperity for SIDS**	**Pact of the Future and the Global Digital Compact**
	GLOBAL TO NATIONAL DRIVERS	Sustainable development Economic growth Social wellbeing Environmental protection						
		Resilience Energy Prosperity Employment Security Wealth Education Health Climate Land Water						
		Equity Innovation Digital Infrastructure Finance Mobility Inclusion Gender Nature Ecosystems						
	GEOSPATIAL PRIORITIES	Guidance Policies Capacity Digital Ecosystems Integration Knowledge Geodesy Emerging technologies Land administration Marine information management Resilience and risk						

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PRINCIPLES & BENEFITS	**OPERATING PRINCIPLES**	**Global Thought Leadership**	**Strategic Engagement & Communication Across Sectors**	**Digital Transformation and safeguarding**	**Guidance and Good Governance**	**Empower Data-Driven Decision-Making**	**Diversity, Equity and Inclusion**	**Accessibility, Interoperability & Transparency**	**Collaborative Multi-Stakeholder Partnerships**	**Capacity Development & Knowledge-Sharing**
	DIRECT NATIONAL BENEFITS & EFFICIENCIES	• **Societal value:** Leadership to enhance and sustain value of geospatial information for social, economic and environmental benefit • **Bridging the geospatial digital divide**: Empower digital transformation, reducing inequalities in geospatial access and use • **Authoritative and reliable data**: High-quality, managed and current geospatial data available at scale for decision-making • **Enhanced return on investment:** Coordinated use and reuse of data and technologies for increased return on investments • **Stronger evidence-based policies:** Reliable integrated data and systems to enhance science- and data-driven policy • **Efficient and accountable governments:** Open, responsive, coordinated and enhanced capacity of governments and institutions • **Empowered workforce and innovation:** Strengthened skills, diversity, and innovation for human capital, jobs and entrepreneurship • **Improved stakeholder engagement:** Greater communication and awareness foster understanding and organizational value • **Integrated knowledge sharing:** Strategic data integration and knowledge exchange support government and resilient societies • **Strengthened regional and cross-border cooperation:** Enhanced collaboration for shared goals and sustainable development								
DELIVERABLES	**WORKING ACTIVITIES & OUTPUTS**	• Leverage the leadership and commitment in geospatial information of Member States, regional and thematic networks • Strengthen the role of geospatial information towards achieving the Sustainable Development Goals, and other global agendas • Enhance the coordination, coherence, financing and capacities of global-to-local geospatial information management arrangements • Improve geospatial governance and guidance aligning national and global frameworks and good practices • Guide the transparent, diversity, equitable and inclusive use of geospatial information management for society • Oversee the strategic orientations and guide the activities of the global geospatial centres of excellence • Foster direction and readiness to emerging technologies towards determining the future geospatial information ecosystem • Provide strategic leadership for the adoption and implementation of integrated geospatial information management and frameworks • Lead the coordination and collaboration to improve and strengthen the global geodetic reference frame and geodesy supply chain • Determine and provide geospatial information methods, tools and services for climate, environment and resilience • Integrate geospatial and statistical information through implementation and operationalization of related frameworks • Advance the role of integrated geospatial information for effective land administration and management • Guide and encourage the availability, accessibility and integration of marine geospatial information • Address policy and legal issues in geospatial information management including related to emerging technological advancements • Demonstrate the benefits of implementing and adopting geospatial standards for the global geospatial community • Strengthen synergies and partnerships with other intergovernmental processes, international entities, organizations related to science, technology, innovation, geographical names, statistics, data to maximize the impact of geospatial information in all its forms								

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High-value Datasets

ANNEX

1. GEOSPATIAL

1.1. Datasets in scope

The geospatial thematic category includes datasets within the scope of the INSPIRE data themes Administrative units, Geographical names, Addresses, Buildings and Cadastral parcels as defined in Annex I and Annex III to Directive 2007/2/EC of the European Parliament and of the Council ([1]). In addition, it includes Reference parcels and Agricultural parcels as defined in Regulation (EU) No 1306/2013 of the European Parliament and of the Council ([2]) and of Regulation (EU) No 1307/2013 of the European Parliament and of the Council ([3]) and the related delegated and implementing acts ([4]). Their granularity, geographical coverage and the key attributes are listed in the table below. If datasets are not available at the scale indicated in the table below, but are available at higher spatial resolution(s) ([5]), they shall be provided at the available spatial resolution.

Datasets	Administrative units	Geographical names	Addresses	Buildings	Cadastral parcels	Reference parcels	Agricultural parcels

1.2. Arrangements for the publication and re-use

(a) The datasets shall be made available for re-use:

— under the conditions of the Creative Commons BY 4.0 licence or any equivalent or less restrictive open licence;

— in a publicly documented, Union or internationally recognised open, machine-readable format;

— through application programming interfaces ('APIs') ([11]) and bulk download;

— in their most up-to-date version.

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"Open data" policies

Geopolitical Realities

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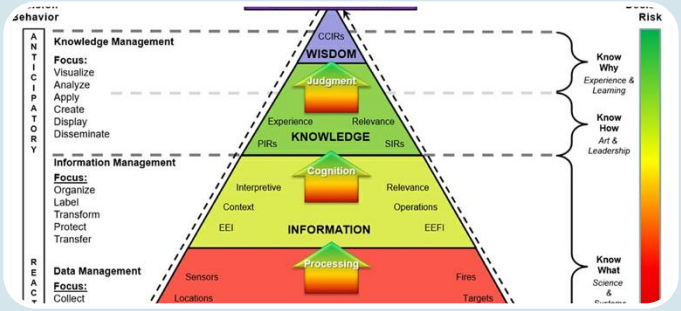
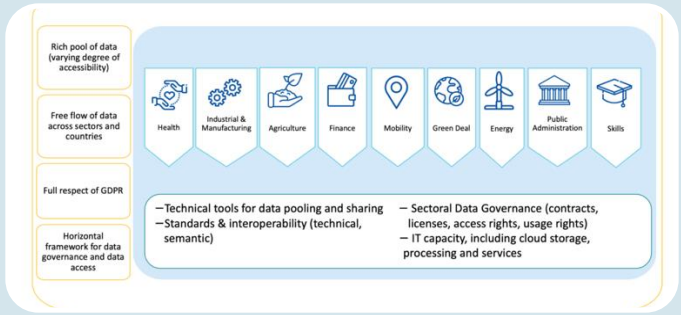
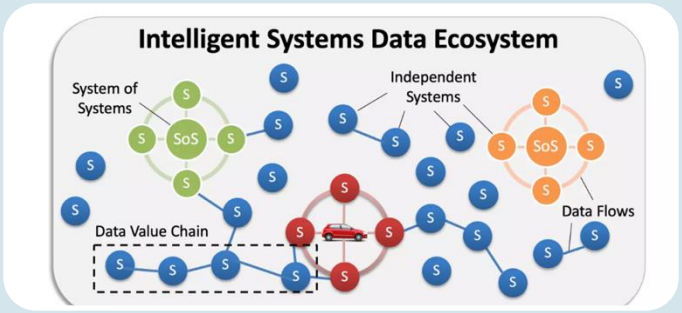
Technology

Technology offers people access to a vast ocean of information — more than has ever been available in human history. But much of this information is detached from authoritative verification or quality control, allowing individuals to choose their own facts and to dispute those of others.







Knowledge infrastructure

Real-time Linked Data Spaces

Intelligent Systems Data Ecosystems

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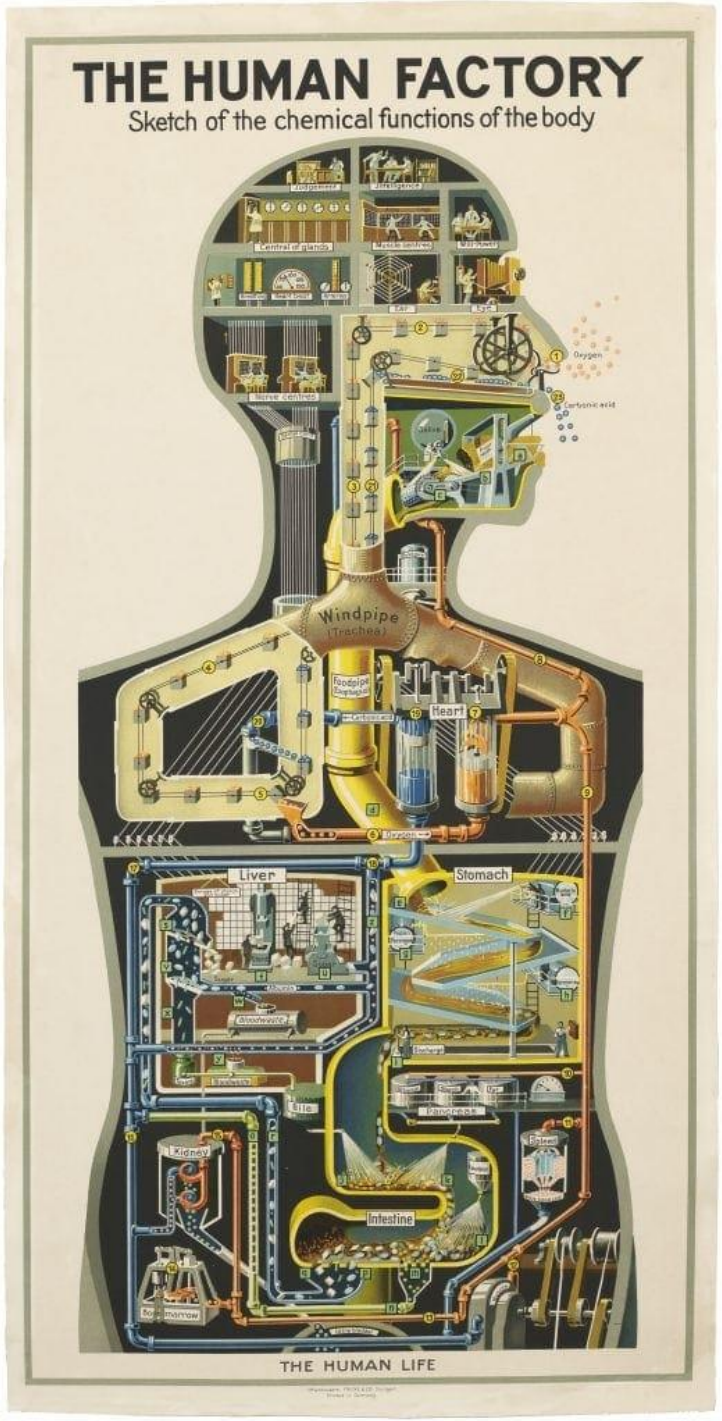
Humans (and machines)

Knowledge on demand:

Traditionally, the knowledge needed to solve many problems is built up over time and cannot be provided on demand. However, users in the value chain strive to create knowledge quickly, otherwise their impact is diminished by missing the right moment.

Knowledge is used to make decisions, accumulate benefits and realise capital. In our on-demand world, time for both people and machines is not days and weeks, but minutes and seconds. That is why efficient and effective methods to extract user-specific knowledge from huge amounts of data, information and existing knowledge, extracted from relevant sources anywhere, are of value.

This extracted knowledge needs to be reliable, defined in the required timeframes, contextually tailored to the user, and increasingly provided through both machine and natural language queries.



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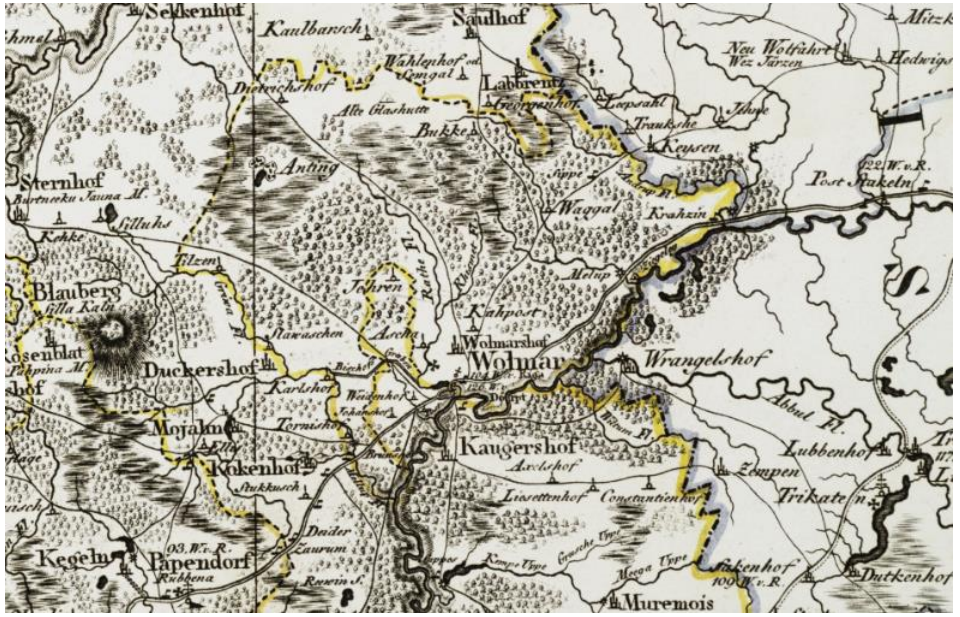
Open vs Closed or Censored



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?

Open data for a registered user. Is this a good enough compromise?

Get Open Data here:

data.gov.lv

geolatvija.lv

www.lgia.gov.lv/lv/atvertie-dati

https://georiga.eu/atvertie-dati/

https://www.lvmgeo.lv/dati