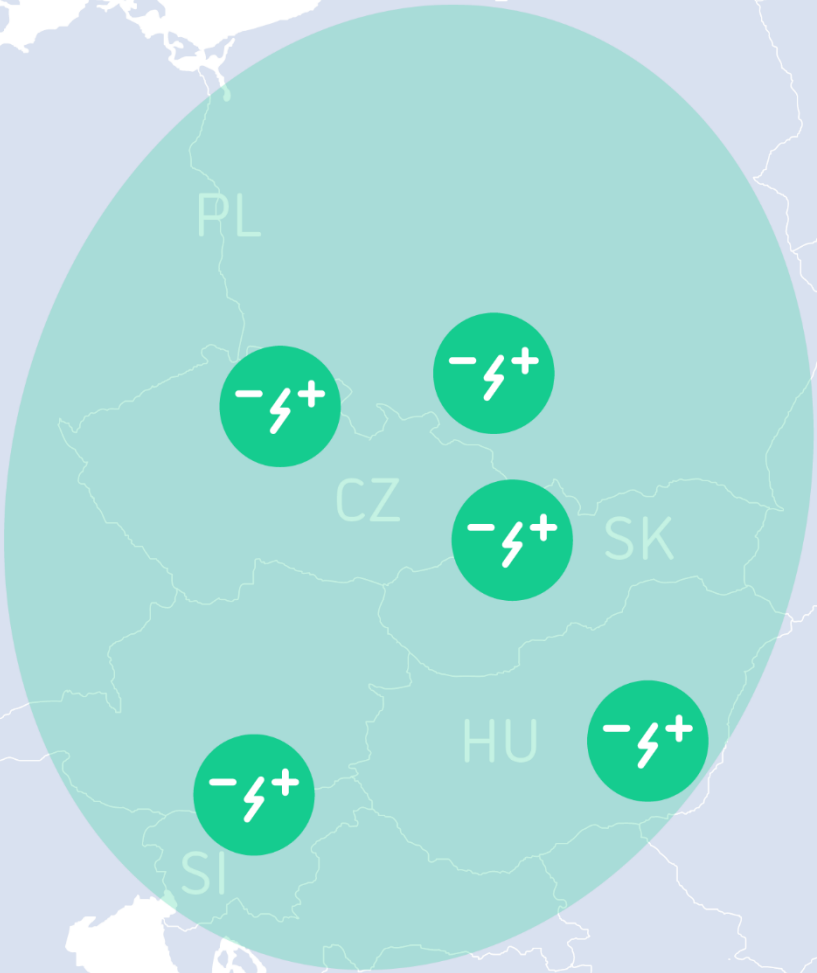
LIFE EnerGISE

Energy Communities Effective Guidance,
Advise, Innovative Support and Stimulation



Central-European Energy Communities:

Analysis of Needs

Slovakia, Czechia, Poland, Slovenia, Hungary

November 2025

DISCLAIMER

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LIST OF ABBREVIATIONS

- **CAPEX** – Capital Expenditure
- **CECs** – Citizen Energy Communities
- **CSV** – Comma-separated values
- **CZ** – Czechia
- **DPH** – Value-added tax *(Czechia)*
- **DS** – Distribution System
- **DSO** – Distribution System Operator
- **EAN** – European Article Number
- **EC** – Energy Community
- **EDC** – Energy Data Centre
- **ENERGAP** – Energy and Climate Agency of Podravje *(Slovenia)*
- **ERÚ** – Energy Regulatory Office *(Czechia)*
- **EU** – European Union
- **FAQ** – Frequently Asked Questions
- **GFD** – General Financial Directorate *(Czechia)*
- **GDPR** – Data-protection rules
- **GWh** – Gigawatt-hour
- **HU** – Hungary
- **ICT** – Information and Communications Technology
- **IEMD** – Internal Electricity Market Directive *(EU Directive 2019/944)*
- **IT** – Information Technology
- **KB** – Knowledge Base
- **LCOE** – Levelized Cost of Energy
- **MEKH** – Hungarian Energy and Public Utility Regulatory Authority
- **MPO** – Ministry of Industry and Trade *(Czechia)*
- **MW** – Megawatt
- **NGO** – Non-Governmental Organisation
- **OKTE** – Short-term Energy Market Operator *(Slovakia)*
- **ORP** – Administrative unit in Czechia *(Czechia)*
- **OSE** – Citizen Energy Communities
- **OSS** – One stop shops
- **OZE** – Renewable Energy Sources *(Czechia)*
- **PL** – Poland
- **PV** – Photovoltaic
- **RECAH** – Rural Energy Community Advisory Hub
- **RECs** – Renewable Energy Communities
- **RED II** – Revised Renewable Energy Directive *(EU Directive 2018/2001)*
- **REPowerEU** – EU plan for affordable, secure and sustainable energy
- **RES** – Renewable Energy Sources
- **RONI** – Regulatory Office for Network Industries *(Slovakia)*
- **ROI** – Return on Investment
- **SAPI** – Service Access Point Identifier
- **SECAP** – Sustainable Energy and Climate Action Plan
- **SI** – Slovenia
- **SK** – Slovakia
- **SME** – Small and Medium-sized Enterprises
- **VAT** – Value Added Tax

- **WP** – Work Package
- **ZOEE** – Electricity Supply Act *(Slovenia)*
- **ZSROVE** – Renewable Energy Sources Act *(Slovenia)*

EXECUTIVE SUMMARY

This report presents **results of a cross-country need analysis of energy communities (ECs) in Central Europe**, conducted under the LIFE EnerGISE project to design the contents of the Knowledge database and national One-Stop Shop (OSS) services. The analysis covers five countries: **Czechia, Slovakia, Poland, Hungary, Slovenia,** identifying their common and country-specific priorities across eleven expert fields grouped under four domains: **technical, legal, financial, and socio-economic**.

Findings confirm that, despite a common EU framework, the real implementation differs substantially across national contexts. Common challenges include complex administrative and grid procedures, regulatory uncertainty, and limited technical capacity. Four priority areas consistently emerge across the countries:

- legal aspects of EC setup and electricity sharing;
- funding sources;
- business models;
- just transition and social inclusion, including awareness and local planning.

The technical needs focus on grid connection, metering, and data integration, while financial barriers highlight the demand for clearer access to funding and investment models.

The comparative evidence validates the LIFE EnerGISE analytical framework and supports the creation of a unified yet country-specific Knowledge database. The report indicates that the OSSs will provide practical guidance on legal workflows, funding tools, and technical procedures to accelerate the formation and replication of energy communities in Central Europe.

Beyond guiding the development of the Knowledge Database and national OSS services, the Needs Analysis provides insights valuable to a broad range of stakeholders in the community-energy ecosystem. Its evidence on regulatory, financial and technical barriers can help policymakers refine strategic frameworks, support emerging and established energy communities in understanding common challenges, and inform support organisations and one-stop-shops as they design or improve their services. The findings are also relevant for financial institutions exploring suitable instruments for community-led projects, technology providers adapting their solutions to practical constraints, and research bodies or EU-funded initiatives seeking comparable, evidence-based data on the maturity and development trajectory of community energy in Central Europe.

CONTENTS

1. INTRODUCTION AND BACKGROUND

This report fulfils the obligations assigned to Deliverable D2.1 in the Grant Agreement of the LIFE EnerGISE project. It provides a comprehensive analysis of the needs of prospective users of the Knowledge Database and one-stop-shop services, identifies the main barriers and capacity gaps across technical, legal, financial and organisational dimensions, compares the situation in the participating countries, and defines the required scope, structure and priority content for the Knowledge Database. These findings form the mandatory foundation for the project's subsequent development of tools and support services.

The report presents the results of the needs analysis of energy communities (ECs), conducted to inform the design and population of the LIFE EnerGISE Knowledge Database (Work Package/WP 2) and to support the development of national One-Stop Shop (OSS) services (under Work Package/WP 3) in the Central Europe. It synthesises needs and barriers faced by energy communities across five participating countries (Czechia, Slovakia, Poland, Hungary, Slovenia) and translates them into a prioritised content plan for the Knowledge Base and the initial OSS services.

The analysis is organised around four categories: technical, legislative, financial, socio-economic, and eleven expert fields defined in the project methodology (C*hapter 2*). As a common frame, we use four stakeholder segments: potential communities, start-up communities, developing communities, and supporting organisations with country-specific exceptions. Any departures (e.g. merged, additional or renamed groups) are described in the relevant country sections. The analysis keeps national specificity, yet it operates within the contours of a shared European framework.

The European Union has positioned energy communities as crucial actors in the clean energy transition, recognizing their potential to democratize energy systems and accelerate decarbonization. The European Commission established a comprehensive regulatory framework through the Clean Energy for All Europeans package, introducing two key concepts: "Renewable Energy Communities" (RECs) under the Revised Renewable Energy Directive (RED II) and "Citizen Energy Communities" (CECs) through the Internal Electricity Market Directive (IEMD). These directives grant citizens' rights to produce, consume, store, and share renewable energy collectively.

Currently, the Commission is monitoring Member States' transposition and implementation through the REPowerEU Plan and works on the Citizens Energy Package (to be published by the end of 2025), which shall clarify legal provisions regarding right to electricity sharing. The Energy Communities Repository serves as a knowledge hub, while initiatives like the Rural Energy Community Advisory Hub provide targeted support, reflecting the EU's commitment to making energy communities accessible across diverse geographical and socio-economic contexts. Within this shared European frame, our task is to identify the concrete information needs and near-term priorities that matter most in Central Europe.

The report is organised as follows. **Chapter 2** summarises the common methodology. **Chapter 3** presents concise country findings with standardised displays of urgent needs across the eleven expert fields and short interpretations. **Chapter** 4 provides the cross-country synthesis and prioritisation, linking results to concrete Knowledge Base items and OSS implications. **Chapter 5** concludes with next steps for WP2 and WP3. The next chapter sets the analytical frame and reporting conventions used across the country chapters and the cross-country synthesis.

In line with the project grant agreement, the needs analysis helped to prioritize the contents of the first version of the knowledge base to be used by the OSS in the pilot phase.

2. METHODOLOGY

This report follows a common approach agreed among partners so that findings are comparable across countries while remaining specific enough to guide implementation. Analysis across all **five countries (Czechia, Slovakia, Poland, Hungary, Slovenia)** was made with the same core design and instruments. At the same time, the work was country context-tailored by each national partner: questionnaires and interview guides were translated and aligned to national terminology and regulatory practice. Gaps that occurred from the qualitative analysis were filled with desk research drew on each country's primary legal and regulatory materials. Functional equivalence was preserved: definitions, scales and routing were kept identical, so that country adaptations improved relevance without breaking comparability. The evidence comes from three complementary tools:

1. **Online surveys** provide the primary quantitative input: respondents rate the urgency of defined expert fields on a five-point scale, and the share of ratings at 4–5/5 serves as the core urgency indicator by country and segment.
2. **Semi-structured interviews** add interpretation, clarifying feasibility, sequencing and dependencies surfaced by the survey.
3. **Desk research** anchors interpretation in current EU and national rules, market arrangements and official guidance.

While this approach provides a solid evidence base, several methodological limitations must be acknowledged. First, the availability and quality of data on energy communities varies significantly across countries, which limits the comparability of results. The maturity of the community-energy sector also differs widely, in some countries the sector is emerging, while in others it is more developed, affecting both the depth and clarity of stakeholder needs. Input from interviews and consultations is inherently self-reported and may therefore reflect individual perceptions rather than fully verified operational realities. Definitions and terminology related to energy communities are not yet harmonised across countries, which poses challenges for direct comparison. Finally, the regulatory landscape in several countries is currently evolving, meaning that some identified needs may change as new frameworks or support schemes are introduced.

Findings are structured into **four main categories and eleven expert fields**, corresponding to the LIFE EnerGISE Expert Pool framework.

- **Technical** covers energy conversion (renewable energy sources, alternative fuels, sustainable waste treatment), energy accumulation and efficient use (storage and management systems, data, software, efficiency and savings), as well as energy transmission and distribution.
- **Financial** includes funding sources (public, including financial instruments, private and state aid) and viable business models.
- **Legal** covers the legal aspects of community establishment and electricity sharing, licensing (including legal permits), standards and certification, and EU and national legislation related to energy communities.
- **Socio-economic** includes energy market trends, just transition and social inclusion, and local energy and climate action plans. Stakeholders are viewed through a common four-segment typology: **potential communities, start-up communities, developing communities and supporting organisations**, with documented country-level adaptations where the actor landscape differs (*Chapter 3*).

Analysis was conducted between August and October 2025. Instruments were implemented in national languages (CS/SK/PL/HU/SI). The results are aggregated, anonymised, no weighting is applied. Sample sizes and segments vary by country and are reported in the respective national chapters. If a segment has no response, it is marked "not collected." Applied consistently across the consortium, this methodology ensures comparable profiles and interpretable results while preserving national specificity.

3. COUNTRY PROFILES: BARRIERS & PRIORITIES

This chapter presents country briefs by each country prepared by national partners under the common design. Each brief summarises the national context and reports key findings from the needs analysis, highlighting the principal barriers and priority needs for creating the knowledge database.

3.1. Slovakia

Partner: SAPI – Slovak Association of Sustainable Energy
Date: October 2025

National Context

Slovakia's framework for energy communities is in its early stages. This is reflected by the number (7) of energy communities registered by the Regulatory Office for Network Industries (RONI) in mid-October 2025. Although the legal framework for community energy in the country has existed since 2022, in late 2025 some noteworthy legislative changes are entering into force. The new regulation aims to support local RE projects and energy sharing, while preventing the concepts from being misused by private companies, and it also shifts electricity sharing to a fully-fledged energy policy tool. The legislation defines two forms of market participants, i.e. energy community and community producing energy from renewables (REC) and introduces new institutions such as sharing organizers and group managers to ensure transparent processes. Importantly, energy communities must now be majority (51%) publicly owned and tied to municipalities or regions, reinforcing their local character and preventing purely private control. Another innovation is the introduction of "flexible connections," which allow producers or consumers to connect to the grid even in areas with limited capacity, provided they accept temporary restrictions, thereby reducing the risk of project rejection. In parallel, from October 2025 electricity trading moved from hourly to 15-minute intervals, aligning with EU practice and improving market efficiency through more precise balancing of supply and demand. More detailed regulations, particularly the Decrees on Electricity and Gas Market Rules issued by RONI, can financially stimulate community energy through tariff and fee advantages. A key enabler of these developments is the Energy Data Centre (EDC), which has been in full operation since 2024. Operated by Short-term Energy Market Operator (OKTE), the EDC serves as a central data exchange platform that facilitates electricity sharing, aggregation of flexibility, and registration of energy storage devices. It supports energy communities by enabling transparent access to consumption and production data, and by streamlining market participation in line with EU directives.

Starting from 1 January 2026, a number of new measures related to energy sharing introduced via **amendment to Act No. 251/2012 Coll. on Energy** and **Act No. 250/2012 Coll. on Regulation in Network Industries** are entering into force. This includes, among others, the following news**:**

- **Expansion of membership in energy communities:** inclusion of budgetary and contributory organizations of municipalities and self-governing regions, as well as legal entities with at least 51% public ownership;
- **Electricity sharing rules**: allowed either free of charge or for compensation; mandatory registration in the Energy Data Centre (EDC) operated by OKTE;
- **Active customer definition:** includes end-users consuming shared electricity; revenues from generation/supply/flexibility must not exceed 20% of other business activities; generation facilities up to 6 MW are eligible;
- **Sharing organizer:** no license required, but notification duty applies; responsible for contracts, metering, billing, communication with the Distribution System Operator (DSO), complaint handling, and publishing information on its website.

Regulatory Office for Network Industries (RONI): should prepare a model contract for electricity sharing and monitor barriers restricting sharing opportunities.

Currently, no dedicated financial funding exists, though some measures may be supported under "Program Slovensko" and the "Zelená podnikom" subsidy scheme.

Methodology: Adaptations to National Context

Limited localisation was applied to align terminology with the national law and administrative practice, while preserving functional equivalence with the common design (see Chapter 2, Methodology). The only adjustment worth mentioning is related to a so far non-existent target group of developing energy communities since the community energy concept is relatively new and only start-up ECs have been established in the country. Evidence comprises **15** survey responses and **7** interviews collected via direct nationwide outreach. By segment: **Potential ECs - 4 surveys / 3 interviews**; **Start-up ECs - 3 / 2**; **Developing ECs – no survey responses / no interviews collected** (non-existing target group in Slovakia); **Supporting organisations - 8 / 2**. Results are organised under the **four analytical categories** (Technical, Legal, Financial, Socio-economic) and the **eleven expert fields** defined in *Chapter 2, Methodology*. All responses are counted (no minimum-size threshold); segments with no data are labelled "not collected." Fieldwork: [August–October 2025].

Country-specific barriers (qualitative)

Figure 1 indicates that barriers are concentrated in **Financial**, led by **High initial investment costs** and followed by **Grid connection, technical complexity of projects & a lack of specific know-how and High administrative burden**, with reinforcing the operational bottleneck. **Socio-economic appears** as a **cross-cutting constraint** rather than a primary blocker in this sample (general lack of public awareness and information leads to difficulties in engaging and mobilising potential community members).

Identified barriers and their distribution on the graph correspond to SAPI's findings. In Slovakia, households have **regulated electricity prices, which reduces their willingness to participate in energy communities**. Establishing an energy community together with installing a source requires financial costs, which, **under the regulated price system, means a long payback period for households' investments.**

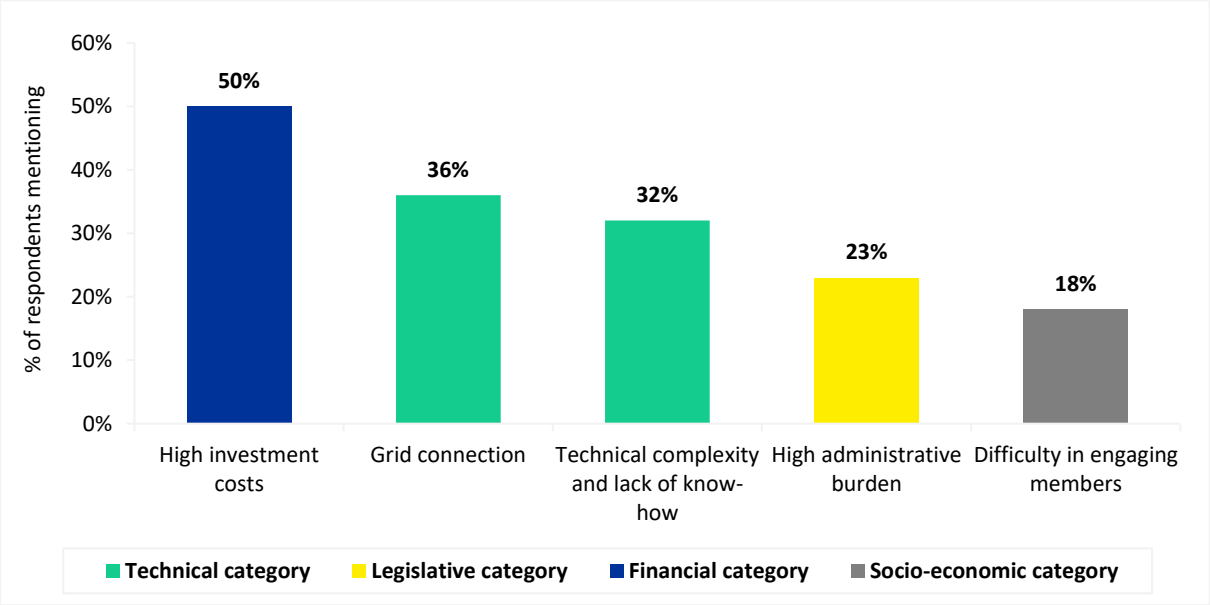

Figure 1: Barriers by category in Slovakia

Gradual deregulation of prices combined with financial instruments and dedicated support programs for energy communities could help. Currently, Slovakia has incentive schemes for green solutions, but **there is no funding program dedicated exclusively to the development of community energy.**

The development of community energy is further hindered by **high network fees, which could be tiered according to how much the community source burdens the grid**. Such tiered tariffs do not yet exist in Slovakia.

The interviews also raised the issue of **municipal involvement and overall awareness of the opportunities and benefits of community energy. Greater and more active involvement of municipalities**, inspired, e.g., by Austria, **would certainly contribute to faster development in Slovakia.**

OSS knowledge database requirements derived from needs analysis

As presented on Figure 2, the needs analysis points out that urgent needs of energy communities in Slovakia in general are concentrated in **Financial**, **Technical** and **Legislative** fields. The highest scores are for **Funding sources and Viable business models**, highlighting demand for identification of funding instruments for energy communities. On the technical side, **Energy transmission & distribution (grid)** and **EC establishment & electricity sharing (legal aspects)** rank highly, reflecting the relevance of practical questions on **connection steps and allocation keys.** The legislative needs are concentrated in **Licensing & permitting** (clustered under Poorly designed or overly restrictive legislation barrier), signalling demand for **case studies and model documents. Socio-economic** fields (especially engagement and general knowledge of the concept of community energy) are moderate but still relevant for uptake.

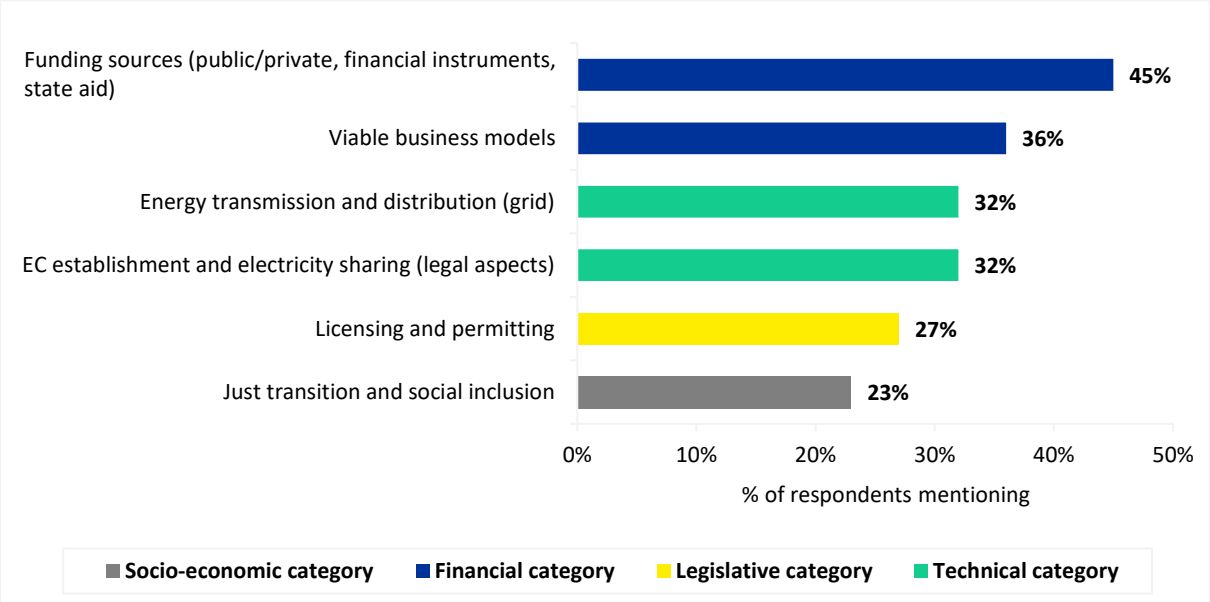

Figure 2: Priority fields for the Slovakian OSS knowledge database

Implications for the OSS knowledge database

In light of the above provided data, a prospective member of an energy community would benefit from **a One Stop Shop (OSS) that provides a three-tiered advisory structure**. At the first level, **in-depth first-contact counselling would clarify real intentions, assess feasibility**, and guide clients toward appropriate solutions while avoiding early missteps. The second level would **deliver legal and project support, including registration procedures, tax identification, tailored steps for chosen legal forms, and ready-to-use templates for different organizational types**. Surveys and interviews reveal that many interested parties lack sufficient knowledge, financial resources, and personnel capacity, making such templates especially valuable in the early stages of preparing documentation. While forms are often available online through various authorities, the OSS would centralize them in one place and offer professional assistance with completion, thereby reducing barriers to entry. At the third level, **advanced energy-economic advice would be essential, offering business plans, financial models,**

funding opportunities, and project return analyses. Beyond advisory services, the OSS should ensure continuous updates on legislative changes, while its knowledge database should prioritise **three core areas:**

- **legal workflows with templates for founding**, sharing, and permitting processes, ensuring that documentation is accessible and supported by expert guidance;
- **grid-connection and sharing guidance**, providing clear steps, rights, forms, and monitoring procedures to help communities navigate technical and regulatory requirements;
- **finance tools** such as planning instruments, grant opportunities, and return-on-investment models, with sign-posting where issues depend on external authorities.

3.2. Czechia

Partner: Energetické centrum Ústeckého kraje p.o.
Date: October 2025

National Context

Czechia's community-energy framework is in its early stages. Czech legislation enables energy sharing via Lex OZE II (2024) and expands activities with Lex OZE III (effective 1 July 2025), adding accumulation, aggregation, flexibility and a non-discrimination rule for sharing customers. These new functions are not active yet, as they will become fully operational once the updated EDC system is introduced. Operations run through the national **Energy Data Centre** (EDC) currently a pilot version. Full functionality is planned for the beginning of the year 2028. Sharing works in three models: apartment building (within one entrance, no distribution fee), Prosumer (up to 11 EAN, no legal entity, nationwide, via DS), and energy communities (legal entity; up to 1,000 EAN; outside Prague limit max 3 ORP). Today's pilot uses static shares, which limits the ability to utilize the full amount of shared electricity. Simultaneity of production and consumption will remain necessary even once dynamic allocation is introduced, but static allocation further reduces flexibility and increases the mismatch between generation and actual consumption.

In practice, most initiatives are led by **municipalities and local action groups**, rather than by private collectives. Instead of pooling new capital, projects typically start from assets that already exist. Above all municipal and residential rooftop PVs, while storage and wind appear only gradually. As a result, activity focuses mainly on electricity sharing, wider services such as flexibility and aggregation are just beginning under Lex OZE III. By September 2025, 49 energy communities were operational, roughly 50 more were in preparation, and about 46 000 EANs were participating in sharing via the EDC. Overall, within two years, Czechia has put in place clear legal definitions, a national (pilot) data backbone, and a fast-growing user base moving from pilots toward scale.

From the perspective of EU law, most current initiatives in Czechia are de facto closer to Renewable Energy Communities (RECs): they are predominantly led by municipalities or public entities, based on **renewable electricity** (mainly rooftop PV) and focused on **local sharing** within a limited territorial and membership scope. By contrast, features more typical of Citizen Energy Communities (CECs) – such as broader market participation, aggregation, flexibility services and more complex business models – are only beginning to emerge under Lex OZE III and remain at an early pilot stage. At present, the national legal framework does not offer two separate, user-facing registration tracks for RECs and CECs; instead, it uses a unified "energy community" concept, with the practical distinction driven mainly by the type of activity (local renewable generation and sharing versus wider market roles). Stakeholders interviewed for this analysis therefore tend to view the REC dimension as more mature, while the CEC dimension still requires further clarification through secondary legislation and regulatory guidance.

Further evolution of the framework is expected over 2025–2026. Lex OZE III only entered into force in July 2025, and its practical implementation – especially in relation to aggregation, flexibility

and the non-discrimination of sharing customers – will depend on implementing regulations and guidance issued by the Energy Regulatory Office (ERÚ), the Ministry of Industry and Trade (MPO), the General Financial Directorate (GFD) and distribution system operators. In parallel, the national Energy Data Centre (EDC) is currently operating in a pilot mode, with full functionality planned for 2028, including more advanced allocation-key management and data-integration options. Stakeholders anticipate that upcoming implementing rules and methodological documents will need to clarify at least three areas:

- VAT and income-tax treatment of energy communities, particularly municipal ones;
- conditions for using dynamic allocation keys and more complex sharing patterns;
- data-protection and data-sharing rules in larger communities, including cooperation with software providers.

Methodology: Adaptations to National Context

Limited localisation was applied to align terminology with national law and administrative practice, while preserving functional equivalence with the common framework. Surveys were adapted to the Czech-specific Prosumer model; moreover, since community-energy implementation in Czechia started in 2023, there is currently no "Developing ECs" segment, so no instruments were issued for that category. Evidence comprises **46 survey responses and 20 interviews** collected via direct nationwide outreach. Surveys were administered to four segments: **Potential ECs** *(n=8)*, **Start-Up ECs** *(n=18)*, and **Supporting organisations** *(n=20)* (consultancies, coordinators, software providers, NGOs). Interviews cover: **Potential ECs** (n=3), **Start-up ECs** (n=7), and **Supporting organizations** (n=10). Neither survey nor interview were collected for the category "**Developing ECs"** (non-existing target group in Czechia). Results are organised under the four analytical categories (Technical, Legal, Financial, Socio-economic) and the eleven expert fields defined in *Chapter 2, Methodology*. All responses are counted (no minimum-size threshold); segments with no data are labelled "not collected." Fieldwork: [August–October 2025].

Country-Specific Barriers (qualitative)

In figure 3, barriers cluster in **Legal** and **Technical**, reinforcing each other: unclear legal and procedural framework complicate technical onboarding to EDC and grid processes. **Financial** issues (VAT, advisory costs) act as cross-cutting constraints, particularly for municipalities. **Socio-economic** limits (awareness/capacity) affect uptake and the speed of replication, especially for potential ECs due to availability of ready-made tools, institutional frictions, capacity and coordination, financing access, and regulatory certainty.

Qualitative interviews and open survey comments help to pinpoint where the legal and procedural framework becomes a practical blocker for Czech energy communities. The first problem concerns licensing and permitting. Early communities report that obtaining a generation license from the Energy Regulatory Office requires extensive documentation and the appointment of a formally recognized responsible person, which in practice resulted in several months of delay between technical completion and the start of electricity sharing.

Second, respondents perceive inconsistencies and a lack of transparent, unified procedures on the side of distribution system operators. Connection conditions and technical requirements (for example the replacement of meters with smart meters, cabinet upgrades or lightning-protection revisions) differ across regions and are often communicated case by case rather than via standardized guidance. This reinforces the impression of a "moving target" for smaller municipalities and increases transaction costs. In some areas, limited distribution-grid capacity further leads to refusals or curtailment of new generations.

A third blocking area concerns tax treatment and the definition of economic activity. Several communities' report uncertainty about when they become VAT payers, how to treat revenues

from electricity sold to non-members (e.g. EV charging services), and how to deal with related taxes; municipalities receive divergent advice from tax advisers and auditors. Consequently, some initiatives proceed with very conservative assumptions or postpone certain services altogether. Interviewees also describe experimenting with membership structures and legal forms to minimize the risk of falling under VAT obligations.

A related issue is the still unsettled interpretation of data-protection rules (GDPR) for communities with many members: coordinators are unsure how far they may share and process detailed consumption data when working with external software providers or consultants.

Finally, several design features of the current system limit scalability and optimization potential. In the pilot EDC environment, dynamic allocation keys are not yet available, making it harder to efficiently integrate larger or highly variable loads; technical limits on the number of generators or metering points per interface restrict certain use cases; and some actors highlight export constraints (e.g. column limits in CSV exports) which complicate automated processing in larger communities. Delayed roll-out of interval metering (in some regions on the order of months) further slows expansion of sharing. Taken together, these factors mean that Czech energy communities often spend a disproportionate amount of effort navigating procedures instead of optimizing their energy and social impacts.

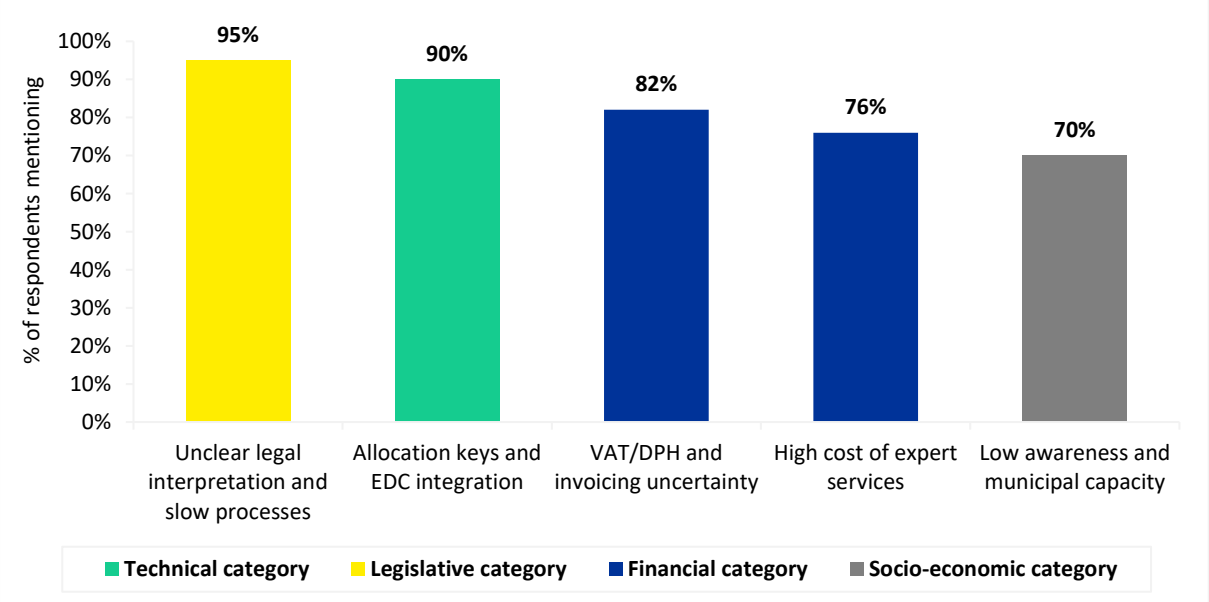

Figure 3: Barriers by category in Czech Republic

OSS Knowledge Database Requirements Derived from Needs Analysis

Figure 4 highlights urgent demand for clarity in legal workflows and data-sharing procedures. The strongest priorities concern entity formation and contractual setup of energy communities, licensing and permitting pathways, and data standardization between community systems and distribution operators—indicating a need for step-by-step administrative guidance and authoritative model documents. Technical priorities focus on grid-connection steps, metering, and allocation-key management within the EDC environment. Financial topics rank mid-high, showing demand for practical planning and calculator tools. Socio-economic aspects remain moderate but essential for uptake among smaller municipalities.

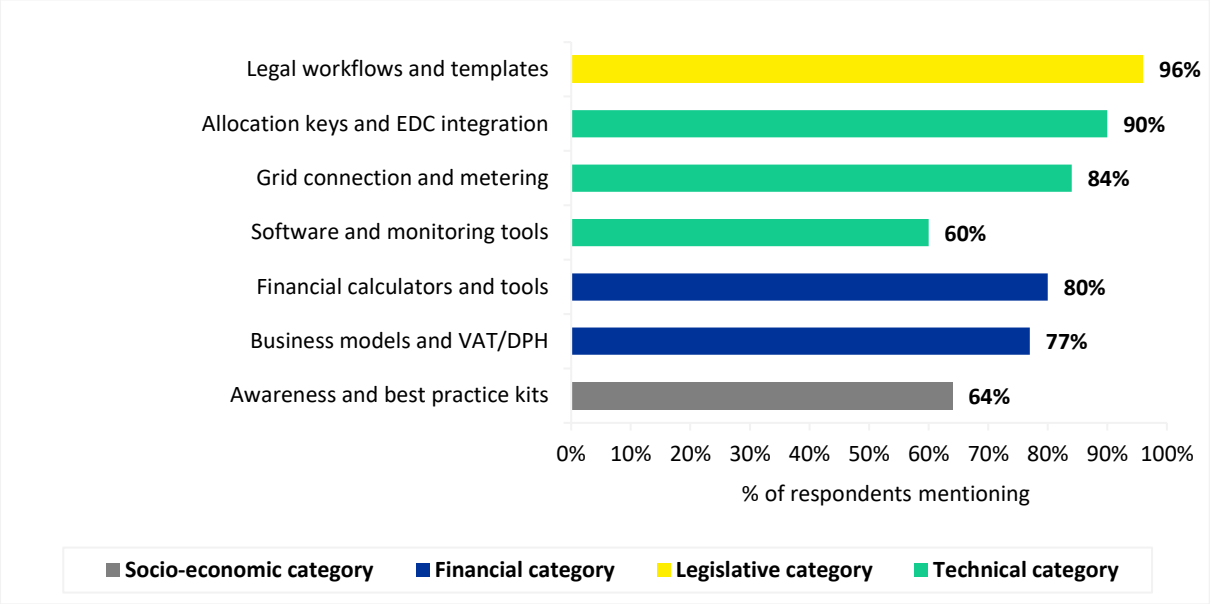

Figure 4: Priority fields for the Czech OSS knowledge database

Implications for the OSS knowledge database

Based on the priorities shown in Figure 4, respondents ask not only for information about community energy but primarily for operational tools that enable concrete steps in the Czech context. This implies that the national OSS should combine (a) a curated legal-technical library with (b) a set of guided workflows and calculators that mirror real project stages from initial idea to ongoing operation.

In the legal and tax domain, needs go beyond generic descriptions of EU concepts. Municipalities and coordinators request Czech-language, nationally valid templates and checklists that can be adapted with minimal legal support: model statutes and membership agreements for different legal forms (associations, cooperatives, municipal companies); sample resolutions of municipal councils and general assemblies; and timelines of licensing and permitting steps, with links to forms and competent authorities. A frequently mentioned demand is for clear material on VAT and income-tax treatment, including decision trees indicating when an entity becomes a VAT payer, how to account for services such as public EV charging, example invoices, and sample reporting structures vis-à-vis tax and customs authorities. Where interpretations are not yet settled, the OSS should explicitly flag this uncertainty and signpost users to competent institutions or vetted legal experts, while maintaining direct dialogue with GFD, ERÚ and MPO to ensure that guidance remains aligned with official positions.

In the technical and EDC-integration domain, the analysis indicates demand for visual guidance that connects grid connection, metering and EDC processes into a single coherent "story". Rather than listing regulations, the OSS should offer "grid and data manuals" for typical Czech scenarios: a small municipal cluster with one PV plant, a medium-sized multi-building campus, and a larger multi-municipal community. Each scenario would combine connection diagrams, meter-replacement steps, recommended data flows between community software and the EDC (including import/export formats), and example allocation-key configurations under the current regime. Ideally, these elements would be compiled into a visual Grid Sharing Manual supported by user feedback. As EDC functionality expands towards full operation in 2026, these materials should be updated to cover dynamic allocation keys and more advanced data interfaces, reflecting user feedback from pilot communities.

In the financial domain, respondents are less interested in theoretical descriptions of business models and more in practical planning tools. The OSS should therefore provide a set of calculators that allow users to:

- assess the economic viability of a proposed community under Czech tariff structures (CAPEX/OPEX, expected savings, costs of coordination and software);
- analyze the sensitivity of results to member composition, tariffs and allocation keys;
- estimate the minimum scale (e.g. GWh/year, number of metering points) needed to finance coordination and operational services. Short case studies from Czech communities (anonymized where needed) should illustrate real budgets for legal services, consultancy, software and management, and how these are covered (membership fees, surcharges on shared kWh, municipal contributions). The Knowledge Base should also include a regularly updated "funding navigator" summarizing current national and EU schemes relevant to community energy and indicating which types of communities (REC-like vs CEC-like, municipal vs citizen-led) they target.

In the socio-economic domain, needs are twofold. On the one hand, coordinators emphasize the need for simple, trustworthy information materials in Czech that explain to citizens and local decision-makers what an energy community is, how sharing works, what typical savings and risks look like, and how personal data are handled. On the other hand, interviews highlight a demand for targeted examples and guidance on including low-income households and other vulnerable groups, as well as myth-busting materials (for example addressing the perception that "small consumers are not worth including"). The OSS can respond by hosting ready-to-use slide decks, leaflets and FAQs for different audiences (municipal councils, citizens, SMEs), together with case studies from Czechia and neighboring countries showcasing successful engagement strategies and inclusive pricing models.

In line with the identified need for databases and transparency tools, the Czech OSS should not only list experts and suppliers but also facilitate peer learning between communities. This could include an interactive map of existing and emerging energy communities with basic metadata (legal form, size, technology mix, contact point) and a tagging system for documents that communities are willing to share (studies, statutes, communication materials). Combined with a moderated forum or regular online "clinics" for coordinators, such features would help convert the experience of pioneer projects into a living knowledge pool and reduce duplication of effort when setting up new communities, thereby supporting both REC-type and emerging CEC-type initiatives in the Czech context.

3.3. Poland

Partner: FEWE
Date: October 2025

National Context

In Poland, the development of energy communities is supported by the regulations of the Renewable Energy Sources (RES) Act, the Energy Law and the transposition of the RED II and IEMD directives, although the implementation of the legal framework for energy communities remains in the development phase. In Poland, both concepts have been transposed mainly through amendments to the Energy Law and the RES Act. Recent legislation introduces citizen energy communities and, within them, communities operating exclusively on renewable energy sources that function as RECs, i.e. RECs are treated as a sub-set of CECs rather than as a fully separate category. This means that, in practice, electricity-based CEC/REC initiatives that fit the current "civic energy community" model can already be registered in the national register kept by the regulator, while other community types (e.g. multi-energy or heat-focused RECs) still depend on further development of the legal framework and secondary regulations. Intensive work is still being carried out on further amendments to the RES Act and the Energy Law (the latest draft amendment – November 2025). These projects are aimed at fully implementing the missing parts of the RED II Directive implementation and the EMD Directive implementation, as well as preparing the ground for the new RED III Directive. Funding is provided by NFOŚiGW programmes (e.g. Energy for the Countryside, My Electricity),

EU funds under the NFOŚiGW and Water Management and regional funds. The tariff system and connection conditions are relatively complex, which can be a challenge for new initiatives.

The citizen energy market is still in its early stages, with the dominance of energy cooperatives in rural areas and energy clusters in cities. One of the main challenges facing Citizen Energy Communities (OSEs) is the lack of clearly defined regulations on the sharing of electricity with other consumers. In other words, how to transfer excess energy and how to account for it. Currently, the process is complicated and raises the risk of different interpretations, which discourages potential participants.

Methodology: Adaptations to National Context

Limited localisation was applied to align terminology with national law and administrative practice, while preserving functional equivalence with the common design (see Chapter 2, Methodology). Evidence comprises 27 survey responses and 2 interviews collected via direct nationwide outreach. By segment: Potential ECs - 1 survey / no interviews collected; Start-up ECs - 17 surveys / 1 interview; Developing ECs - 8 surveys / 1 interview; Supporting organisations – 1 survey / no interviews collected. Results are organised under the four analytical categories (Technical, Legal, Financial, Socio-economic) and the twenty eleven fields defined in Chapter 2, Methodology. All responses are counted (no minimum-size threshold); segments with no data are labelled "not collected." Fieldwork: [August–October 2025].

Country-specific barriers (qualitative)

Figure 5 indicates that barriers are concentrated in financial issues led by tax issues, then socio-economic issues led by cooperation with energy suppliers, grid connection procedures and cooperation with grid operator issues. In terms of legal problems, the most common problem is to how to share the electricity. There is still no clear legal definition of "energy sharing" nor detailed provisions governing the internal allocation and settlement of electricity within energy communities.

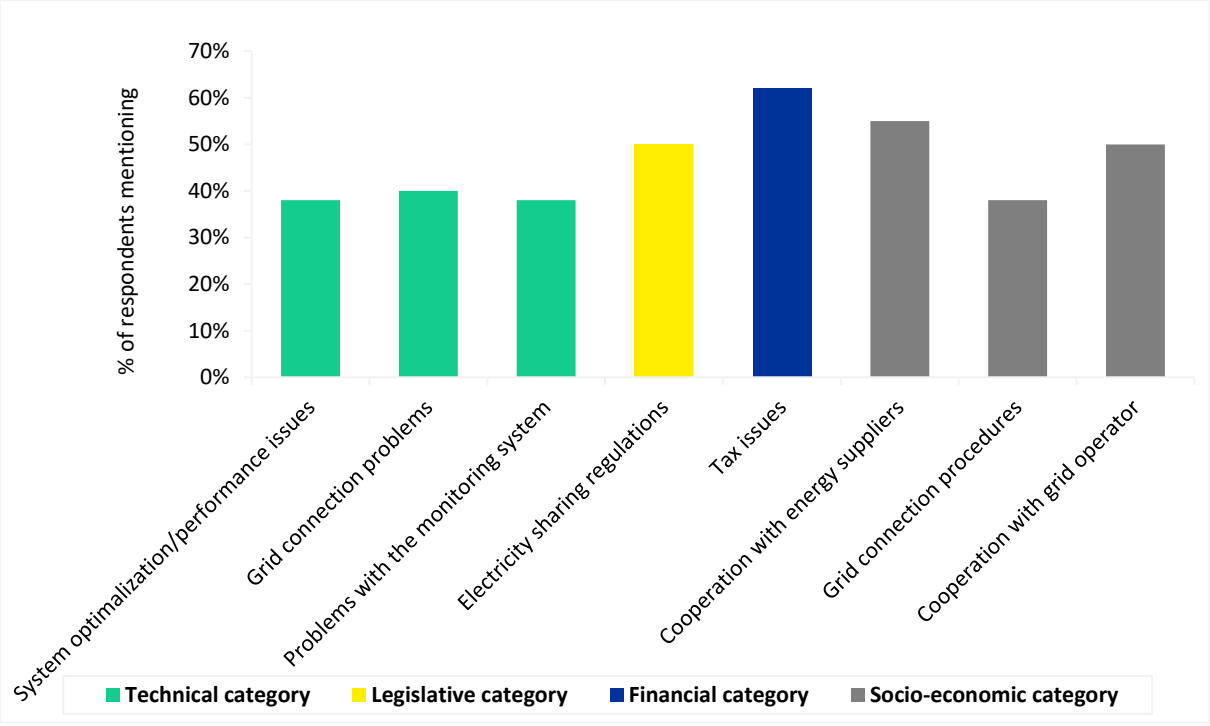

Figure 5: Barriers by category in Poland

As a result, the exchange of electricity between members is treated as standard commercial trading, subject to the full regulatory regime for electricity supply rather than a dedicated, streamlined framework for energy sharing. In terms of technical issues, the system optimization/performance

issues, the grid connection problems and the monitoring system are focused. Interviews indicate that the main problems are primarily related to access to the energy grid and to technical issues (e.g. problems with monitoring system), followed by legal challenges.

OSS knowledge database requirements derived from needs analysis

As seen on Figure 6, the needs analysis points out that urgent needs of EC in Poland are concentrated in **Technical** and **Socio-Economic** fields. The highest scores are for technical side are **Technical design calculators** and **benchmarking tools**. In terms of socio-economic needs important are **best practice case studies** and **Step-by-step guides on how start a community**. **Financial** items - **Funding planning tools** and **Funding opportunities database** score in the upper mid-range. The most important legislative need **alerts for regulatory updates**. The conclusion from the need for analyses is that the database for energy communities should contain a wide range of information, filling the information gaps in each of these aspects. At the same time, all the information contained in the survey's points to the need for a lot of support in terms of technical and socio-economic knowledge.

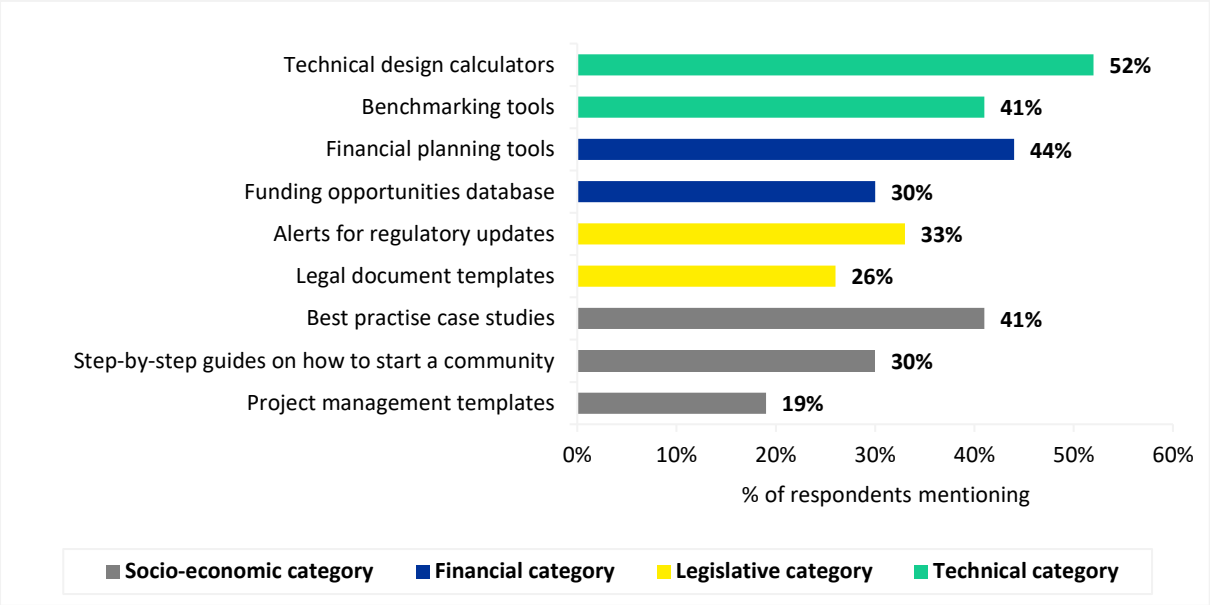

Figure 6: Priority fields for the Polish OSS knowledge base

Implications for the OSS knowledge database

The analysis shows that the OSS Knowledge Database should focus on technical, socio-economic, financial, and legal gaps identified by Polish energy communities. **Technical priorities:** Provide practical tools supporting system design, optimisation and grid integration. Key elements: simple design/sizing calculators, benchmarking tools, troubleshooting guides for monitoring systems, and clear grid-connection procedures. **Socio-economic priorities:** Support community formation and cooperation with stakeholders. Key elements: best-practice case studies, step-by-step guides for starting ECs, and cooperation models with suppliers and DSOs. **Financial priorities:** Address moderate but relevant needs for funding guidance. Key elements: funding opportunities database, basic financial planning templates, examples of viable business models**. Legal priorities:** Improve clarity on electricity-sharing rules and keep communities updated on regulatory changes. Key elements: regulatory update alerts, simplified explanations of electricity-sharing options, model legal agreements.

3.4. Slovenia

Partner: Energy and Climate Agency of Podravje (ENERGAP)
Date: October 2025

National Context

Energy communities in Slovenia legally defined under the Renewable Energy Sources Act (ZSROVE) and the Electricity Supply Act (ZOEE), which introduce Renewable Energy Communities (RECs) and Citizen Energy Communities (CECs). RECs, aligned with the RED II Directive, focus on renewable generation and local self-supply, while CECs, based on the IEMD Directive, allow broader citizen participation in electricity production, consumption, sharing, aggregation and flexibility services. Despite this dual framework, implementation remains limited, as secondary legislation—particularly for data exchange, energy sharing, billing arrangements and registration procedures—has not yet been adopted. Consequently, no officially registered energy communities yet operate in Slovenia. Financial support for such initiatives is still modest. The national grant scheme for community self-supply with renewable electricity and BORZEN's green investment programme provide partial funding but primarily target municipalities and companies, rather than citizen-driven initiatives. Public interest is steadily growing, and several regional energy agencies and NGOs are active promoters. However, progress is hindered by regulatory uncertainty, complex procedures, fragmented institutional coordination, and insufficient start-up financing.

Legislative updates relevant to energy communities are ongoing. In June 2025, Slovenia adopted an amendment to the Electricity Supply Act (ZOEE-A), which introduces the legal basis for energy sharing as of 1 July 2026, flexible grid connection solutions for capacity-limited areas and additional obligations for distribution system operators related to technical rules, IT upgrades and data exchange. In parallel, the government is preparing a new Renewable Energy Sources Act (ZSROVE-1) to simplify RES project procedures, improve alignment with RED II and clarify operational rules for Renewable Energy Communities. The adoption of secondary legislation implementing ZOEE-A and ZSROVE-1 is expected during 2026 and is anticipated to enable the first formal registration of energy communities once sharing, billing and coordination procedures with DSOs are defined.

Methodology: Adaptations to National Context

Limited localisation was applied to align terminology with Slovenian legislation and administrative practice while keeping full consistency with the common design. Terminology was adjusted to the two legal forms of energy communities: Renewable Energy Communities (ZSROVE) and Citizen Energy Communities (ZOEE). Survey and interview tools were adapted to capture both formal and informal initiatives, as most Slovenian communities remain in preparatory or conceptual stages without legal registration. Questions were contextualised to reflect missing secondary legislation, local governance structures (municipalities, energy agencies) and the limited availability of national funding schemes. Evidence comprises total 13 survey responses and 8 interviews collected via direct nationwide outreach. By segment: Potential ECs - 4 surveys / 1 interview; Start-up ECs – 1 survey / 1 interview; Developing ECs - 0 survey responses / 0 interviews collected; Supporting organisations – 8 surveys / 6 interviews. Results are organised under the four analytical categories (Technical, Legal, Financial, Socio-economic) and the eleven expert fields defined in Chapter 2. All responses are counted (no minimum-size threshold); segments with no data are labelled "not collected." Fieldwork: [August–October 2025].

Despite the formal transposition of RECs and CECs into national law, the absence of secondary legislation and operational procedures currently prevents their implementation.

Country-specific barriers (qualitative)

The main blocking issues in Slovenian legislation concern the incomplete implementation of both the Renewable Energy Sources Act (ZSROVE) and the Electricity Supply Act (ZOEE).

Although both Acts formally define energy communities, secondary legislation has not yet been adopted, making their practical establishment impossible.

Key gaps include:

- No official registration process or competent authority designated for EC approval;
- Undefined procedures for electricity sharing and billing between members;
- Lack of data exchange protocols between communities and network operators (SODO, Elektro distributors);
- Missing provisions on rights and obligations of individual members, especially in multi-apartment buildings;
- Unclear supervision and reporting mechanisms.

This incomplete enabling framework means that, despite formal definitions of RECs and CECs, no fully operational ECs exist in Slovenia yet, and initiatives remain stuck in preparatory phases or operate under alternative organisational models (municipal ownership, cooperatives).

Consequently, figure 7 indicates that barriers are mainly concentrated in the Socio-economic and Technical categories, reflecting the early stage of energy community development in Slovenia. The leading barriers are low public awareness of energy communities (30.8%) and difficulty finding interested participants (23.1%), both underscoring limited community engagement and public understanding of the concept. **Technical challenges**, including maintenance requirements, understanding technical aspects, and grid connection issues (each around 15%), further reinforce the operational bottlenecks faced by emerging initiatives. **Financial and Legal barriers**, while frequently mentioned in interviews, were less prominent in the survey due to the small number of fully operational communities. This pattern suggests that social mobilisation and technical complexity currently represent the most critical constraints to the formation of energy communities in Slovenia, whereas regulatory and financial issues are expected to gain importance as projects mature.

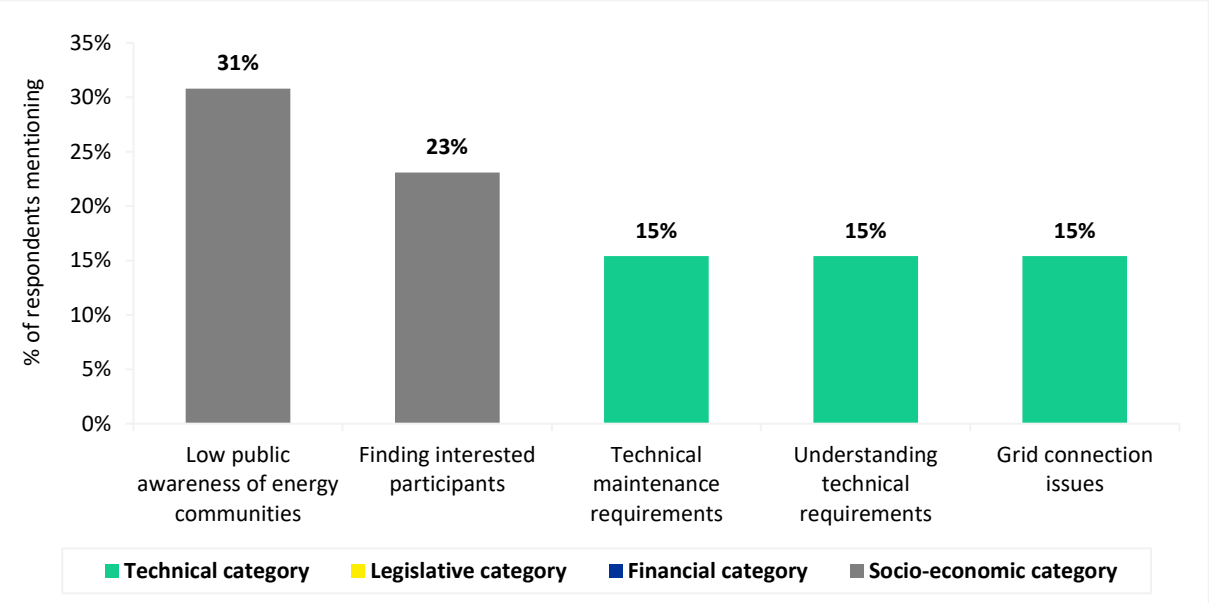

Figure 7: Barriers by category in Slovenia

Note: Because the graph shows percentages across all respondents, the values appear low. When calculated only among respondents who answered each specific question, the percentages

are much higher (50–100%), reflecting the limited national sample size and the early development stage of Slovenian energy communities.

OSS knowledge database requirements derived from needs analysis

As shown in Figure 8, the priority knowledge needs of Slovenian energy communities are predominantly concentrated in the technical domain. RES integration (PV/biomass/biogas, sizing) ranks highest (100%), indicating that communities lack practical engineering guidance on designing and optimising local RES systems. Three additional fields score similarly high (approx.85%): Public engagement & awareness, Standards & certification / EU–national legislation and Funding sources. These reflect persistent gaps in mobilisation capacities, legislative clarity and access to suitable financing. Needs in the Legal and Financial domains are relevant but will become more impactful as communities move toward formal establishment.

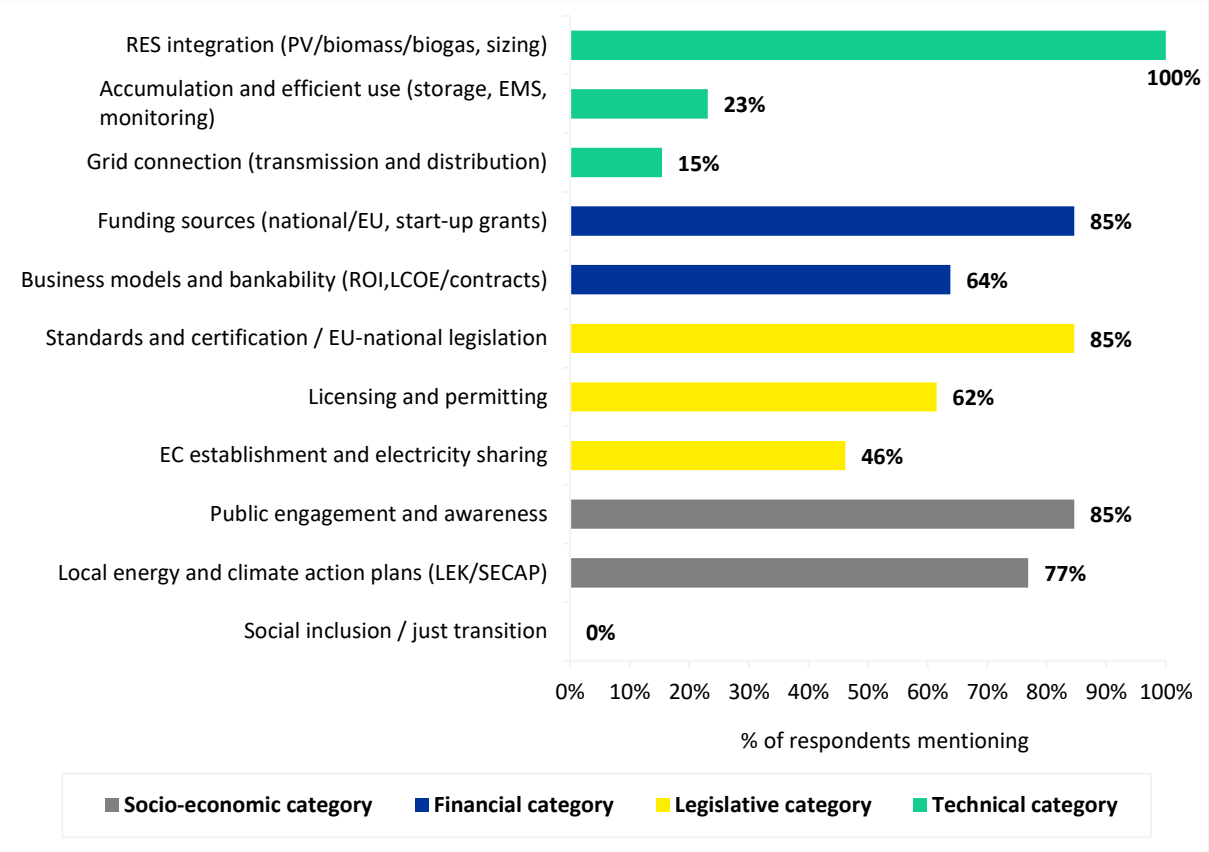

Figure 8: Priority fields for the Slovenian OSS knowledge base

Given these findings, a prospective or emerging energy community in Slovenia would benefit from an OSS that supports users along the full development pathway—from initial interest to project implementation. At the first stage, communities require accessible guidance on feasible RES options, system sizing principles and grid-connection considerations to avoid early design errors. This can be accompanied by basic communication materials that help them present the concept to potential members and local stakeholders. At the second stage, communities need clear legal workflows and communication support: step-by-step guidance for REC/CEC establishment, templates for governance and membership agreements, and ready-to-use communication and engagement materials to mobilise citizens and build trust. Many interviewees emphasised that such templates and structured workflows would substantially reduce administrative uncertainty. At the third stage, communities need financial orientation—funding overviews, business-model examples, simple ROI calculators—and continued communication support to keep members well-informed, maintain

transparency, coordinate with municipalities and DSOs, and secure commitment during project preparation.

Implications for the OSS

Considering these needs, the OSS knowledge database should prioritise:

- technical guidance on RES system design, sizing, grid integration and storage solutions;
- community-engagement and communication tools, including templates, phased communication guidance and mobilisation strategies relevant across all stages of EC development;
- legal and financial resources, such as REC/CEC workflows, ready-to-use templates, funding overviews and simple planning tools.

These elements will equip Slovenian communities with the technical, organisational and communication capacities needed to progress from initial interest to operational implementation. These components should be supported by practical engagement resources, ensuring that emerging communities have both the technical and organisational capacity to progress from initial interest to operational implementation.

3.5. Hungary

Partner: Békéscsaba Energia ESCO Ltd.
Date: October 2025

National Context

The legal foundation for (renewable) energy communities ([R]ECs) were established by the Electricity Act (VET, Act LXXXVI. of 2007). This introduced the concepts of both renewable and general energy communities. However, implementing details and technical regulations necessary for practical operation, particularly regarding energy sharing, are still partially missing, creating barriers to the development. The Hungarian Energy and Public Utility Regulatory Authority (MEKH) registers and supervises the established ECs, but only a few pilot projects were registered which are not fully operational yet.

At the time of the report, only 17 energy communities are authorised, and the first licence was issued on 3rd of October 2023. These pilot projects typically follow top-down approaches as a result of a previous funding opportunity financed by the Hungarian government in 2021.

While development of ECs was previously stimulated by targeted grant programs on national level, there are currently no dedicated financial and grid incentives for energy communities, keeping market maturity very low. Moreover, due to state-subsidized residential energy prices in Hungary, it **is difficult to offer economic incentives** to private individuals. This challenge is further compounded by the long-term annual net metering system that has been guaranteed for the majority of households.

Additionally, the limited spread of smart meters in the domestic market hinders the implementation of dynamic, community-level energy sharing. These issues affect both CECs and RECs.

One of the latest steps in accordance with CEC requirements was the introduction of a newly defined form of energy community that allows blockhouses to establish energy communities. In addition, the Hungarian government fixed the transition fees for citizens in mid-November 2025, a measure that also affects the operation of energy communities.

The most anticipated legislative update concerns the amendment of the law on cooperatives, which is expected to introduce a new legal entity for energy communities—the so-called “energy cooperation.” This development could represent a significant step forward, as it will define the internal

procedures that an energy cooperation must follow, including rules on decision-making, member financing, and other operational mechanisms.

Methodology: Adaptations to National Context

Limited localisation was applied to align terminology with national law and administrative practice, while preserving functional equivalence with the common design. Evidence comprises **12** survey responses and **2** interviews collected via direct nationwide outreach. By segment for **potential ECs 6 surveys and 1 interview**; for **start-up ECs 2 surveys and 1 interview**; for **supporting organisations 4 surveys were collected** – developing ECs are not existing, so no survey response, interviews were made. Results are organised under the **four analytical categories** (Technical, Legal, Financial, Socio-economic) and the **eleven expert fields**. All responses were counted (no minimum-size threshold); segments with no data are labelled "not collected." Fieldwork: [August–October 2025].

Country-specific barriers (qualitative)

Figure 9 indicates that barriers are concentrated in **Legal and Financial categories**, led by **Legal/licencing uncertainty** and **Access to financing**, reinforcing the regulatory/economic bottleneck. **Social and Technical aspects** appear as a **cross-cutting** constraint rather than a primary blocker in this sample.

The identified barriers and their distribution on the graph correspond to the experiences in Hungary. The majority of energy communities operate as nonprofit Ltds. This is partly due to practical reasons: besides other incentives (such as simpler and faster processes) lawyers specialised in energy law have far more experience in establishing nonprofit Ltds than creating cooperatives or associations. The same applies to financial aspects – accountants, banks and other financial actors generally prefer Ltds over civil law forms. Although nonprofit Ltds are an accepted and dedicated form for energy communities in Hungary, their suitability regarding open membership may be questionable.

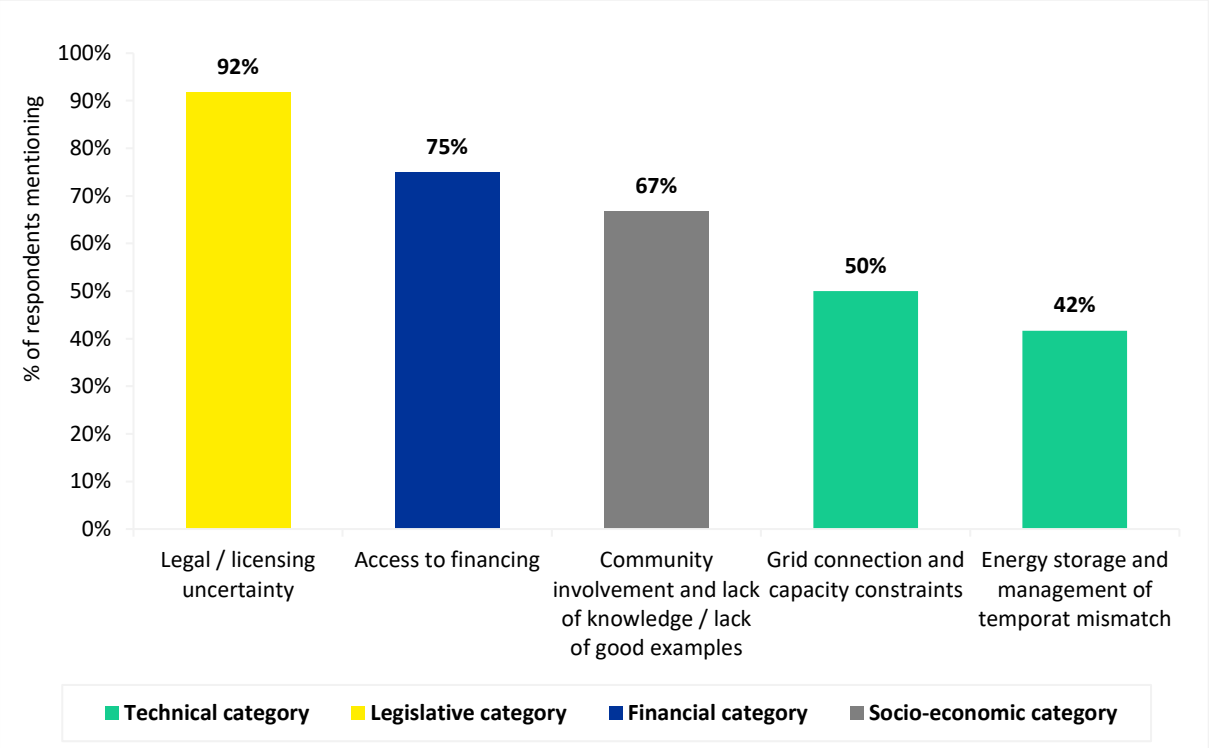

Figure 9: Barriers by category in Hungary

As additional source of confusion is the inconsistent terminology: the English version of Directive (EU) 2019/944 refers to "citizen energy community", the Hungarian translation uses the term "Helyi energiaközösség" ("local energy community"), while the national electricity law defines simply "energy community" (without any qualifier). In the long term, choosing the most convenient legal form and working with different definitions of energy communities may create barriers in international projects, including in relation to accessing EU funding.

Another significant challenge is that Hungarian households benefit from regulated electricity prices, which make it difficult for financial incentives to participate in energy communities. Establishing an energy community and installing the related energy technologies requires financial resources which under the current price regulation system result in long payback periods and significant administrative efforts. For many households, the energy transition effectively ends with the installation of a PV system, they might be reluctant to engage in additional administrative procedures.

Furthermore, since energy communities are not automatically granted discounts on network fees, many practical aspects of energy sharing remain undefined (e.g. measurement, financial settlement, technical balancing). Energy communities must comply with the restrictions and uncertainties of energy legislation without citizens being offered meaningful external incentives and this – combined with the negative experiences many households have had during the installation of PV systems – makes the development of a viable business model particularly challenging.

On the other hand, local governments feel both external incentives (financial considerations) and internal motivations (climate targets set out in SECAPs and other strategic documents). Because municipalities have the infrastructure and capacity to promote energy communities, they could become important drivers of the process. However, their resources—time, finances, human capacities, and experience in this field—are limited, and in many cases their efforts may not progress beyond establishing the legal entity.

OSS knowledge database requirements derived from needs analysis

As seen on the Figure 10, the needs analysis points out that the needs of EC in Hungary are begin struggling with in **Legislative** and **Social** fields. The highest scores are for **permitting requirements**, and **Lack of awareness about energy communities**, signalling demand for **case studies, model documents, clear links to competent authorities and tools to engage and activate citizens**. On the technical side **Choosing the right technology** and **Energy storage options** rank highly, reflecting practical questions on **connection steps, metering/monitoring, and storage integration**. **Financial** items – **Investment calculations, funding options, business model development** are mentioned as main shortcomings, pointing to the need for **calculator tools (CAPEX**, **cash-flow/ROI/LCOE), grant application aids, and bankability checklists** rather than policy change. **Socio-economic** field should not be underestimated, as the lack of awareness combined with the lack of financial incentives could be a strong barrier for collective energy communities (CECs). Sharing good practices, DIY manuals and energy clubs are recommended. These tools could help create opportunities to discuss current topics of interest to the community and other stakeholders in a relaxed, informal setting through workshop-style events held at regular intervals.

On the basis of the needs analyses the operation of the OSS should focus on the following themes:

In order to raise awareness and be able to make data-driven decisions we should emphasise that a uniform, automated and robust data-gathering, processing and feedback system is the backbone of an energy community ("**(I) smart metering and data-driven decision making**").

As one of the major barriers is the legislation the OSS should offer up-to-date, practical legal consultancy ("**(II) legal workflows with templates (founding, sharing, permitting**)").

As 'choosing the right technology' seems to be expected and storage technologies are spreading we should put emphasis on these issues. The fact that our organisation has one of the most

experienced operating battery energy storage systems and widespread information we propose to merge them as self-optimisation ("**(III) storage technology and self-optimisation**").

Financial aspects should be provided ("**(IV) finance tools (for planning and grants)**").

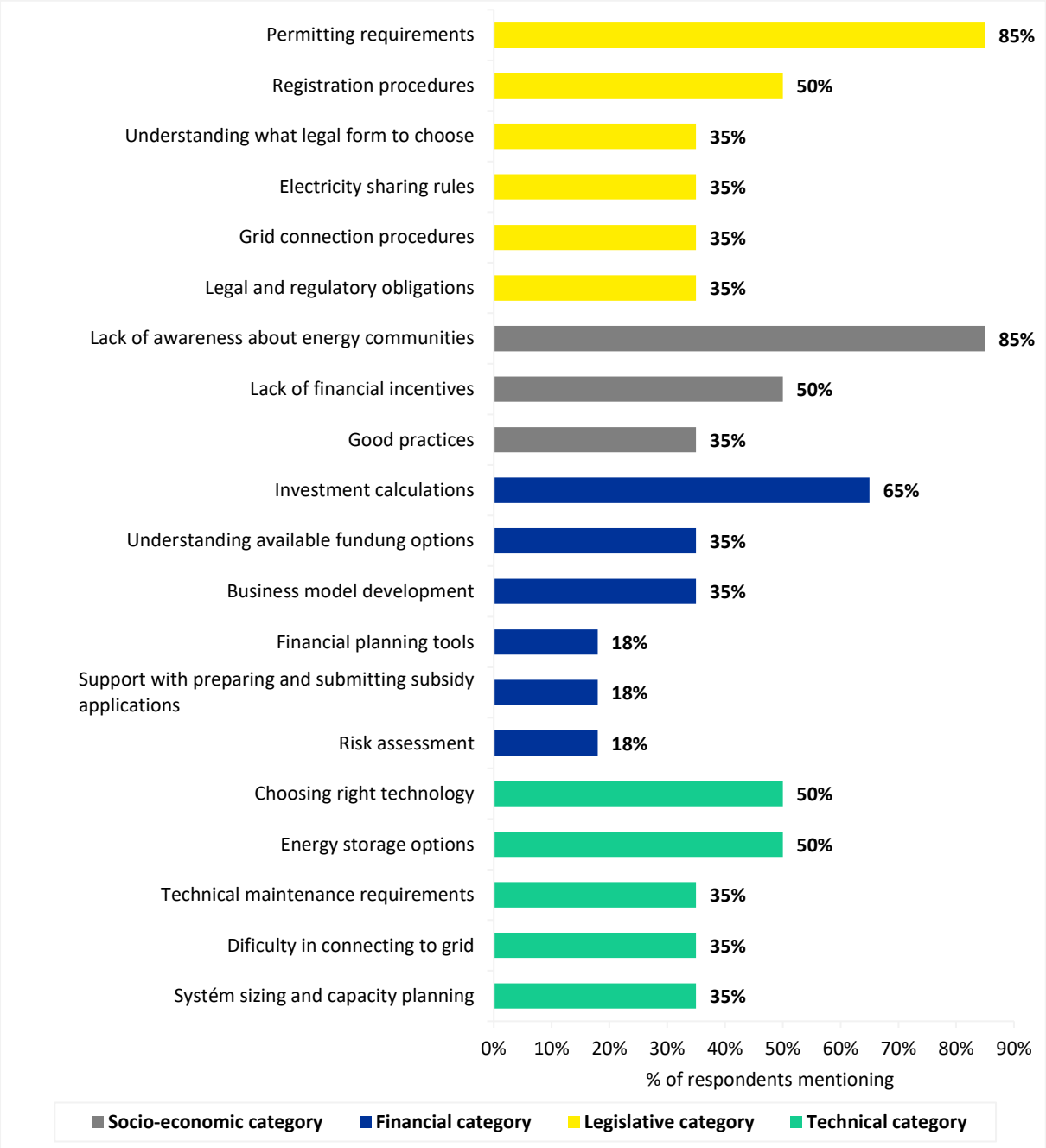

Figure 10: Priority fields for the Hungary OSS knowledge base

4. COMPARATIVE ANALYSIS ACROSS COUNTRIES

This chapter compares the five participating countries using harmonised data from their national analyses. Values for the eleven Expert Fields were extracted from each country report and aligned within a common analytical framework to ensure comparability. *Figure 11* presents a cross-country heatmap showing where countries converge on key priorities and where differences occur.

The cross-country comparison confirms a **consistent pattern across all five countries**. Despite differences in legislative maturity and administrative practice, energy communities in Czechia, Slovakia, Poland, Slovenia and Hungary report similar needs concentrated in four core areas: legal processes, financial frameworks, business models and technical implementation. These shared needs indicate that the eleven expert fields provide **an appropriate and coherent structure** for the Knowledge Base and reflect the real decision points communities are facing.

Each cell indicates whether a given field was identified as a "must" by at least 20 % of national respondents (1 = yes; 0 = no). This threshold allows comparison between datasets of varying depth while maintaining methodological consistency. The analysis highlights shared priorities in legal, financial, technical and socio-economic domains, while also revealing distinct national emphases.

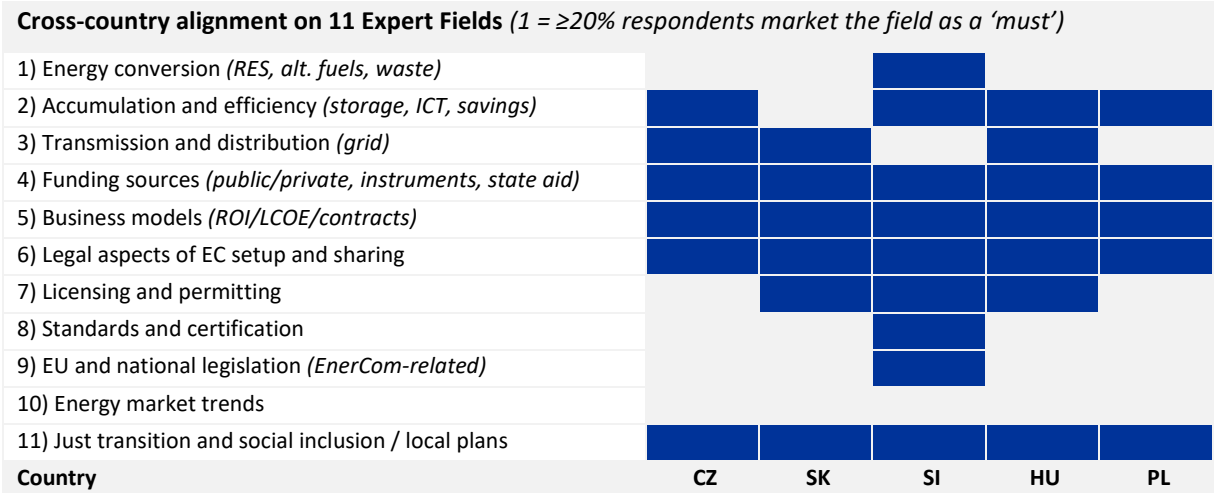

Figure 11: Heatmap showing cross-country alignment on 11 Expert Fields

Figure 11 shows strong cross-country alignment in key financial, legal, socio-economic and technical domains. Four pillars cut across **all countries**: **Legal aspects of EC setup & electricity sharing** and **Just transition & social inclusion / local plans (incl. awareness)** confirming that community energy is at once a legal/organisational task and a social one that depends on outreach and local capacity. **Funding sources** and **Business models indicating** a shared need that communities require both reliable capital pathways. For the OSS and Knowledge Base, this translates into delivering a country-specific Funding Navigator, Business-Model case studies and templates, checklists, and practical calculators (CAPEX/OPEX, tariff and loss assumptions, allocation effects). Followed by **Accumulation & efficiency** (storage/ICT/savings). **Grid (transmission & distribution)** pressures concentrate in **CZ, SK, HU** (connection, metering, operational limits).

Other country-specific patterns stand out. E.g. **Slovenia** uniquely prioritises RES integration at 100% and, unlike others, also flags Standards & certification and EU/national legislation pointing to a more formalised regulatory environment. **Poland** emphasises technical tooling (calculation/ICT under accumulation & efficiency), whereas **Czechia** pairs strong legal/process needs with business-model work and grid readiness. Notably, Energy market trends do not cross the 20% threshold in any country, suggesting that immediate technical/legal/financial enablers outweigh broader market-watching needs at this stage.

Overall, the comparative view confirms that **Central Europe's community-energy landscape is shaped by common structural needs in Financial, Technical, Legislative and Socio-economic fields** but with **country-specific nuances** that will require **tailored One-Stop-Shop guidance**. This report validates the use of the eleven Expert Fields and four main fields (technical, financial, socio-economic, legislative) as a shared analytical framework for designing the LIFE EnerGISE Knowledge Database and national OSS services.

5. CONCLUSION AND RECOMMENDATIONS

This needs analysis consolidates national evidence into a unified understanding of the conditions required for energy communities to advance in Central Europe. While EU legislation provides a common foundation, national regulatory frameworks, administrative practice, grid conditions and financing environments remain the primary determinants of implementation readiness. Energy communities therefore require both structured, comparable information and guidance tailored to their national regulatory context.

Across all countries, **two overarching needs emerge**. First, clearer and more operational regulatory conditions, including standardised procedures for establishing communities, electricity-sharing rules, metering, allocation and data exchange. Second, stable and accessible financing pathways, enabling communities to move from initial planning to implementation and long-term operation. These needs are reflected consistently in all national analyses, although the severity and specific manifestations vary by country.

The analysis confirms the relevance of the four analytical domains: technical, financial, legislative and socio-economic moreover the eleven expert fields. These categories map directly onto the practical steps communities must take, the barriers they encounter and the decisions they need to make. They should therefore serve as the backbone of the Knowledge Base.

To support community-energy development effectively, the Knowledge Base should prioritise:

- **Legal workflows and model documents**, clearly outlining steps, authorities and open questions;
- **Technical guidance**, including grid connection, metering, allocation keys and data management;
- **Financial instruments and business-model templates**, providing practical tools such as calculators and funding navigators;
- **Socio-economic guidance**, including communication materials and resources for citizen engagement and local planning.

The insights gathered in this Needs Analysis will form the foundation for all subsequent outputs of LIFE EnerGISE. They will directly inform the structure and thematic scope of the Knowledge Base, guide the preparation of fact sheets and good practices that distil the key findings into practical guidance, and ensure that the national one-stop-shop services respond to the specific barriers and maturity levels identified across countries. Together, these follow-up deliverables will translate the analysis into actionable support, enabling communities to move from early interest to concrete implementation within their respective national frameworks. All materials, including the Knowledge Base and future guidance tools, will be published **on the project website**:

LifeEnergise | Energy communities Effective Guidance, Advise, Innovative Support and Stimulation

The tailored one-stop-shop services will be offered in all five project languages (CZ, SK, PL, HU, SI) from **July 2026**, when the pilot operation begins. Users will be able to access the services and submit enquiries through nationals contact forms on the project website.

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Energy Communities Repository: https://fedarene.org/project/energy-communities-repository/

More information on **LIFE EnerGISE project**:

LifeEnergise | Energy communities Effective Guidance, Advise, Innovative Support and Stimulation