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Executive Summary

This report presents the results of a comparative questionnaire survey conducted within the RAISING project to examine how residents of selected European coal and post-mining regions perceive ongoing regional transformation and the transition away from coal. The survey focused particularly on residents' assessment of current regional conditions, expectations and concerns regarding transformation, preferred development priorities, awareness of transformation processes and funding, participation in decision-making, territorial allocation of investments, and the role of mining and industrial heritage in future regional development.

The survey was conducted in the Czech Republic, Poland and Germany and included 301 respondents, comprising 81 respondents from the Czech Republic, 124 from Poland and 96 from Germany. The questionnaire was distributed primarily in selected mining and post-mining regions, with particular attention to smaller communities affected by coal mining and its decline. Participation was voluntary, and the survey was conducted predominantly online. Consequently, the sample is not statistically representative of the populations of the three countries or regions. Respondents with university education are strongly overrepresented. The results should therefore be interpreted as a comparative assessment of attitudes within the surveyed sample rather than as population-level estimates.

Despite these limitations, the results reveal a few consistent patterns across the three countries. Employment and economic stability remain at the centre of respondents' expectations regarding transformation. Creating new and high-quality jobs was the most frequently selected transformation priority, chosen by 68.1% of respondents. At the same time, respondents do not associate successful transformation with employment alone. Environmental improvement, support for local businesses, new investment, affordable housing, education and retraining, and improved infrastructure are also important components of the desired future development of post-mining regions.

The survey also indicates that respondents generally believe that post-mining regions can have a successful future. However, this optimism is accompanied by considerable uncertainty regarding whether transformation will generate tangible benefits for local communities. Concerns relate to corruption and inefficient use of public funds (55.8%), job losses and rising unemployment (55.1%), and the possibility that large companies will benefit while residents are left behind (32.6%). The findings therefore suggest that respondents assess transformation not only in terms of the volume of investment, but also according to its fairness, transparency and visible contribution to local communities.

A further important finding concerns the territorial dimension of transformation. Respondents show strong support for directing investment towards areas most affected by mining and particularly towards the reuse of brownfields and previously developed land. At the same time, the results do not indicate a simple preference for either large strategic projects or small local interventions: 79.4% of respondents prefer a combination of large strategic and smaller local

projects. This suggests that major investments and locally visible interventions should be regarded as complementary rather than competing approaches to regional transformation.

Public participation and trust in transformation governance represent another important challenge. A substantial majority of respondents (75.8%) consider the current influence of residents on decisions concerning regional development insufficient, while 77.7% declare willingness to become personally involved. At the same time, respondents identify gaps in information about planned projects, the use of public funds, the practical impacts of transformation on residents, and opportunities to participate in decision-making. Effective transformation therefore requires not only investment but also transparent communication and meaningful opportunities for local communities to influence priorities and implementation.

The results also demonstrate that mining and industrial heritage remains a strong component of regional identity. Overall, 88.3% of respondents consider mining and industrial history an important part of regional identity, and there is broad support for preserving selected former mines and industrial sites as cultural heritage. At the same time, a majority of respondents associate the future of their regions with modern technologies, research and education. Transformation is therefore not generally perceived as requiring a rejection of the industrial past; rather, the findings support an approach in which modernisation is combined with the preservation and reinterpretation of valuable elements of mining and industrial heritage.

While these broad principles are shared across the surveyed regions, the cross-country comparison reveals different national and regional emphases. Czech respondents place comparatively strong emphasis on modernisation, the creation of a new regional image, brownfield reuse and transparent use of public funds. Polish respondents show the strongest focus on employment, economic security, industrial continuity and support for communities directly affected by coal phase-out. German respondents place comparatively greater emphasis on research and universities, infrastructure, quality of life and a knowledge-based post-industrial economy. These differences indicate that a uniform transformation model is unlikely to respond adequately to the expectations of all coal regions.

Overall, the survey shows that respondents do not perceive successful transformation simply as the physical redevelopment of former mining areas or the implementation of large investment projects. A socially acceptable transition must create high-quality economic opportunities, deliver visible benefits to local communities, prioritise the regeneration of mining-affected areas, use public resources transparently, enable meaningful public participation, and respect regional identity. At the same time, transition policies need sufficient flexibility to reflect the different socio-economic conditions, stages of coal phase-out and expectations of individual regions. **The findings therefore support an approach combining common principles of a just transition with region-specific priorities and locally adapted implementation strategies.**

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Introduction

The transformation of European coal regions is a long-term process that significantly affects their economic structure, labour markets, land use, social conditions and regional identity. The decline or termination of mining creates a need to identify new economic activities and development opportunities, while at the same time raising questions related to employment, quality of life, the future of post-mining areas and the fair distribution of the benefits of transition measures. Alongside economic and environmental aspects, the social acceptability of transition and its ability to respond to the needs and expectations of people living in affected regions are therefore essential to its success.

These issues are particularly important in smaller mining and post-mining communities. Such communities may have long-standing economic and social links to the mining sector and related industries, while at the same time lacking the development capacities available to large regional centres. The impacts of transition may therefore differ substantially between localities. Attitudes may also vary depending on whether mining is still ongoing, has only recently ended, or the region has already been undergoing post-industrial transformation for a longer period.

In this context, an international questionnaire survey was conducted within the RAISING project among residents and other stakeholders in mining and post-mining regions of the Czech Republic, Poland and Germany. The research focused primarily on small mining communities and examined respondents' perceptions of the current state of their region, expectations regarding its future development, priorities of the transition process, the use of public funds, citizen participation in decision-making, and the importance of mining and industrial identity. The questionnaire covered the social, economic and environmental dimensions of transition.

The main objective of the survey was to determine how residents and other stakeholder groups perceive the transition process and which conditions they consider important for the future development of their regions. The research addressed not only current regional problems, but also expectations concerning the future economy, preferences regarding strategic and local projects, brownfield reuse, territorial justice, trust in institutions and willingness to participate in decision-making. Particular attention was also paid to whether and how economic modernisation can be combined with preserving mining and industrial heritage.

The questionnaire survey was conducted using the CAWI (Computer Assisted Web Interviewing) method from 2 July to 11 August 2026, and a total of 301 completed questionnaires from the Czech Republic, Poland and Germany were included in the analysis. The results are first evaluated for the complete international sample and subsequently for each country separately. The Questionnaire survey report provides a direct comparison of the Czech

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Republic, Poland and Germany and a descriptive assessment of selected factors associated with attitudes towards transition. The final section summarises the main findings and translates them into recommendations for transition policy and practice.

Because participation was voluntary and respondents were not selected randomly, the findings are not interpreted as representative estimates of the attitudes of the entire populations of the regions studied. The sample includes, among others, a high proportion of university-educated respondents and people whose households have a current or former connection to mining. The results should therefore primarily be understood as a comparative picture of the attitudes of respondents who participated in the study and as a basis for identifying themes, expectations and potential conflicts that should be considered when planning the transition of individual regions.

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1. Research methodology

1.1. Target groups

The CAWI (Computer Assisted Web Interviewing) survey targeted people living in small mining communities in Poland, the Czech Republic and Germany. The survey focused on residents of small mining and post-mining communities and on other stakeholders associated with their transition process.

The target groups included:

- residents and local communities;
- local authorities, public administration representatives and decision-makers;
- trade unions and former miners;
- employees, entrepreneurs and unemployed persons;
- local leaders, teachers and students;
- labour market institutions, NGOs and advocacy groups;
- local and sector-specific media.

The inclusion of these groups was intended to ensure that the survey captured a broad range of perspectives on the social, economic and environmental dimensions of the transition of small mining communities.

1.2. Sampling procedure

The study used a purposive selection of the mining and post-mining regions and communities under study. Within these areas, respondents were approached through multiple distribution channels, while participation in the online survey was voluntary and based on self-selection.

The selection process was carried out in several stages. First, key mining regions in Poland, the Czech Republic and Germany were identified. Subsequently, small mining communities considered particularly exposed to the socio-economic impacts of the transition process were selected for the study.

Poland

In Poland, 113 small mining municipalities with populations of up to 50,000 were identified in the Śląskie, Lubelskie, Wielkopolskie, Dolnośląskie, Małopolskie and Łódzkie Voivodeship.

The selection of municipalities was based, among other criteria, on their inclusion in areas designated as OSI (Obszar Strategicznej Interwencji – Strategic Intervention Area) within mining subregions, in accordance with the Territorial Just Transition Plans (2022).

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Czech Republic

In the Czech Republic, the Ostrava–Karviná Coalfield (OKR) and the North Bohemian Brown Coal Basin (SHR) were selected as the two principal coal regions. The research focused on municipalities with a direct or historical connection to coal mining and populations of up to 50,000. The city of Ostrava was an exception; however, due to its size and specific urban structure, Ostrava is administratively divided into several municipal districts, many of which have a character and population size comparable to the smaller towns included in the study.

In the Czech Republic, the questionnaire was distributed through social media, stakeholder contacts and professional networks. Municipal and city newsletters and other official information and communication channels of local authorities were also used to reach local residents.

Germany

In Germany, the research focused especially on the Ruhr region, where its last two hard coal mines were closed in 2015 and 2018 respectively, and the transformation process is still actively taking place.

The CAWI questionnaire was distributed primarily through targeted social media channels, institutional and university communication networks, and professional colleague channels. A snowball sampling approach was utilized by asking key contacts and personal network partners to voluntarily forward the survey link to their local surrounding networks, residents, and relevant stakeholder groups.

The second stage involved stakeholder mapping to identify groups directly or indirectly affected by the transition process. The mapping included, among others, local authorities, residents, employees, non-governmental organisations and other relevant local stakeholders. Identified stakeholders were subsequently invited to participate in the CAWI survey.

1.3. Respondent recruitment and distribution channels

A multi-channel approach was used to recruit respondents and disseminate information about the survey. Digital communication channels, direct stakeholder outreach and sector-specific media were combined to maximise the geographical and social reach of the survey.

The following META communication platforms were used:

- RAISING project profiles on Facebook, LinkedIn and Instagram;
  - https://www.facebook.com/projectraising/posts/pfbid02pp1AphSFTJ8WhEDQX261TGfdrR4buq8v6B7kUwrDkQrFJddFA4nnq2AvfvsHzGmcl
  - https://www.linkedin.com/feed/update/urn:li:activity:7478775527806459904
  - https://www.instagram.com/p/DaVGiwriOCB/?utm_source=ig_web_copy_link&igsh=MzRlODBiNWFlZA==

- GIG-PIB institutional profiles on Facebook and LinkedIn;
- local community forums and resident groups in selected small mining municipalities on Facebook, including open groups.

Other respondent recruitment channels included:

- the stakeholder contact database developed within the RAISING project;
- professional networks and contacts of GIG-PIB staff;
- direct communication with relevant organisations and associations, including the Association of Mining Municipalities in Poland;
- sector-specific media, including the nettg.pl portal and Trybuna Górnicza, which published information inviting participation in the survey.

The use of multiple distribution channels was intended to reach both institutional stakeholders and individual residents and to ensure the inclusion of diverse perspectives from the selected mining communities.

1.4. Research method and instrument

The survey was conducted using CAWI (Computer-Assisted Web Interviewing), i.e. a quantitative online questionnaire survey.

The research instrument was a structured CAWI questionnaire consisting of 41 closed-ended and open-ended questions. Selected questions also allowed respondents to elaborate on their answers and express their own views.

The questionnaire focused on perceptions of the current situation and the course of the transition process in the selected subregions. The questions covered three main dimensions of transition:

- social;
- economic;
- environmental.

The questionnaire was designed to capture respondents' perceptions and assessments of changes taking place in mining communities, as well as their views on the challenges and opportunities associated with the transition process.

The full CAWI questionnaire is provided in Appendix 1.

The questionnaire was available online through the link specified in the original methodology, and respondents could also access it using a QR code.

The questionnaire was available in four language versions – Polish, Czech, German and English – to facilitate participation by respondents in all three countries included in the study.

1.5. Data protection and confidentiality

The survey was anonymous. The collection and processing of responses complied with the requirements of the General Data Protection Regulation (GDPR) and the relevant Polish data-protection legislation.

Information obtained through the survey was used exclusively for scientific, research and analytical purposes. No personally identifiable information was used for purposes other than those related to the implementation and analysis of the study.

1.6. Survey implementation and monitoring

The survey was conducted from 2 July to 11 August 2026.

The progress of the survey was continuously monitored, including the number of respondents and their geographical distribution. Response levels and the progress of data collection were reviewed regularly.

Where necessary, information about the ongoing survey was repeatedly published through the project's communication channels on Facebook and through other available distribution channels. The purpose was to maintain the visibility of the survey and support further respondent recruitment throughout the data-collection period.

1.7. Data processing and analysis

After data collection was completed, the responses were exported from the online questionnaire system into a spreadsheet format and subsequently merged into a single analytical dataset. As the questionnaire was administered in several language and regional versions, variable names, response categories and coding procedures were harmonised before the analysis to enable joint evaluation of responses from the Czech Republic, Poland and Germany. Data preparation included checks for completeness, logical consistency of responses and harmonisation of region-specific items. The resulting master dataset also contained separate national subsamples for the Czech Republic, Poland and Germany, together with a codebook describing the meaning and coding of individual variables.

Closed-ended questions were processed according to the type of variable. For categorical questions, absolute frequencies (n) and relative frequencies (%) were calculated. For multiple-response questions, the proportion of respondents selecting each option was calculated; consequently, percentages for these questions do not necessarily sum to 100%. For ordinal and Likert-type scales, response frequencies, mean values and medians were used depending on the nature of the question. Five-point scales were coded from 1 to 5 according to the direction of the scale. A four-point scale from 1 to 4 was used to assess the severity of specific

regional problems. For scale-based items, the “I don’t know” response was coded as 99 and excluded from the calculation of means, medians and percentages based on substantive responses.

The analysis was conducted at three successive levels. First, responses were descriptively analysed for the entire international sample (N = 301), with each respondent having equal weight in the pooled analysis. Second, the national subsamples of the Czech Republic (n = 81), Poland (n = 124) and Germany (n = 96) were analysed separately. The third level consisted of a direct cross-country comparison of CZ × PL × DE, focusing particularly on substantively relevant differences in transition priorities, concerns, territorial justice, participation, trust in institutions, and regional and mining identity. Given the different sizes of the national subsamples, the non-random sampling procedure and differences in their regional composition, these differences were interpreted descriptively rather than as representative estimates of differences between the national populations.

In addition to national and regional comparisons, relationships between selected respondent characteristics and attitudes towards transition were assessed descriptively. Particular attention was paid to household connection to mining, education, subjective level of awareness, age, length of residence in the region and household economic situation. Response shares and mean ratings for selected scale-based items were compared between groups. This part of the analysis was exploratory in nature. Given the cross-sectional design of the study, the non-random sample and the possible interaction of multiple respondent characteristics, the observed associations were not interpreted causally.

Open-ended questions were retained in their original wording and analysed qualitatively. Responses were reviewed across the entire dataset and recurring thematic areas were identified, particularly employment opportunities and economic stability, transition governance and transparency, environment and land regeneration, young people and demographic development, modernisation and education, and regional identity. Given the multilingual nature of the survey and the fact that a single open-ended response may contain several themes, frequencies of thematic categories were not used at this stage as an exact quantitative measure. A subsequent detailed content analysis would benefit from the application of a unified multiple-coding framework across all three languages.

The results were presented using tables, figures and textual interpretation. Interpretation focused not only on the ranking of individual responses but also on relationships between findings across the thematic sections of the questionnaire. Particular attention was paid to whether the same issue recurred across different types of questions, for example the importance of employment in the assessment of regional problems, reasons for considering leaving the region, transition priorities and concerns about the transition process.

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This approach made it possible to develop an integrated picture of respondents' attitudes and subsequently identify the main differences between countries and respondent groups.

Table 1 ***Overview of data processing and analytical procedures***

Data/analysis type	Procedure	Output
Categorical responses	absolute and relative frequencies	n; %
Multiple responses	proportion of respondents selecting each option	n; %; total may exceed 100%
Ordinal and Likert-type scales	valid responses; mean, median and frequencies	mean; median; n; %
"I don't know" response in scales	coded as 99; excluded from substantive scale calculations	variable valid n
National comparison	separate CZ, PL and DE subsamples and direct comparison	descriptive cross-country differences
Factors associated with attitudes	comparison of selected respondent groups	descriptive relationships without causal interpretation
Open-ended questions	qualitative thematic interpretation	main recurring thematic areas

Interpretation note: The analytical procedures used in this report are primarily descriptive. The results are not treated as representative population estimates, and causal conclusions are not inferred from the observed relationships. Inferential statistical testing may be undertaken as a separate subsequent analytical stage.

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2. Overall survey results – all countries combined

This chapter first presents the results for the complete sample of respondents from the Czech Republic, Poland and Germany. The overall sample consists of 301 respondents. The results provide an aggregated view of attitudes among residents of the post-mining regions included in the study. Given the non-random sampling procedure, however, they should not be interpreted as representative estimates of the populations of the three countries. Detailed country-level results and a cross-country comparison are presented in the subsequent chapters.

2.1 Respondent characteristics

A total of 301 completed responses were included in the analysis. The largest share of the sample consisted of respondents from Poland (n = 124; 41.2%), followed by Germany (n = 96; 31.9%) and the Czech Republic (n = 81; 26.9%). The different numbers of respondents across countries should not automatically be regarded as an imbalance in the research sample, as the countries differ in population size, the extent and number of post-mining areas, and the number of people living in the affected communities. Moreover, the survey was not designed to create a proportionally representative sample of the populations of the individual countries, but rather to capture the views of residents of selected small mining and post-mining communities. Nevertheless, differences in the size of the national subsamples will be taken into account when interpreting the aggregated results and, in particular, in the subsequent cross-country comparison.

The sample was relatively balanced in terms of gender. Women accounted for 52.2% of respondents (n = 157) and men for 46.5% (n = 140). The remaining respondents selected another option or preferred not to state their gender. The largest age group was 35–44 years (26.2%), followed by respondents aged 45–54 (22.6%), 25–34 (18.6%) and 55–64 (17.6%). Respondents aged 18–24 and those aged 65 and over were less represented.

The educational structure of the sample is markedly uneven. University education was reported by 202 respondents, representing 67.1% of the total sample. A further 14.6% reported higher vocational or comparable professional education, while 13.0% had completed secondary education with a school-leaving examination. Respondents with secondary education without a school-leaving examination or with primary education represented only a small share of the sample.

This educational profile needs to be considered when interpreting the results. The research was conducted as a voluntary online CAWI survey, and respondents were not selected randomly. The questionnaire was distributed through social media, stakeholder databases, professional contacts of the RAISING project team, as well as QR codes and links published in selected official municipal newsletters and other local-government information channels.

Such a distribution strategy may result in self-selection bias, as people who are already interested in regional transformation, are more civically engaged, or have higher levels of education may be more willing to participate in the survey.

Fieldwork experience also showed that simply making the questionnaire available to the general public does not necessarily result in a high response. In one case, where a link to the questionnaire was published in the municipal newsletter of a municipality with more than 1,000 inhabitants, only four responses were obtained. This figure cannot be interpreted as a formal response rate because it is not known how many residents actually read the newsletter and noticed the invitation. Nevertheless, it illustrates the difficulty of obtaining responses from the broader population through a purely voluntary online survey.

For the subsequent analysis, education will therefore be treated not only as a descriptive characteristic of the sample but also as a potentially important explanatory variable. The relationship between education and selected attitudes towards transition is further explored descriptively in Chapter 5. This will allow a better assessment of the extent to which the educational composition of the sample may influence the overall results.

The sample is, however, characterised by a strong connection of respondents to the regions under study. A total of 74.4% reported having lived in the region since birth, while a further 16.3% had lived there for more than ten years. The current household connection to mining was reported by 29.9% of respondents and a past connection by 35.5%. Thus, almost two-thirds of the respondents came from households with a current or former link to mining. This is an important characteristic when interpreting attitudes towards transformation, regional identity and future development.

Table 2 Basic characteristics of the overall respondent sample

Characteristic	n	%
Czech Republic	81	26.9
Poland	124	41.2
Germany	96	31.9
Women	157	52.2
Men	140	46.5
University education	202	67.1
Lives in the region since birth	224	74.4

Current household connection to mining	90	29.9
Past household connection to mining	107	35.5
No household connection to mining	104	34.6

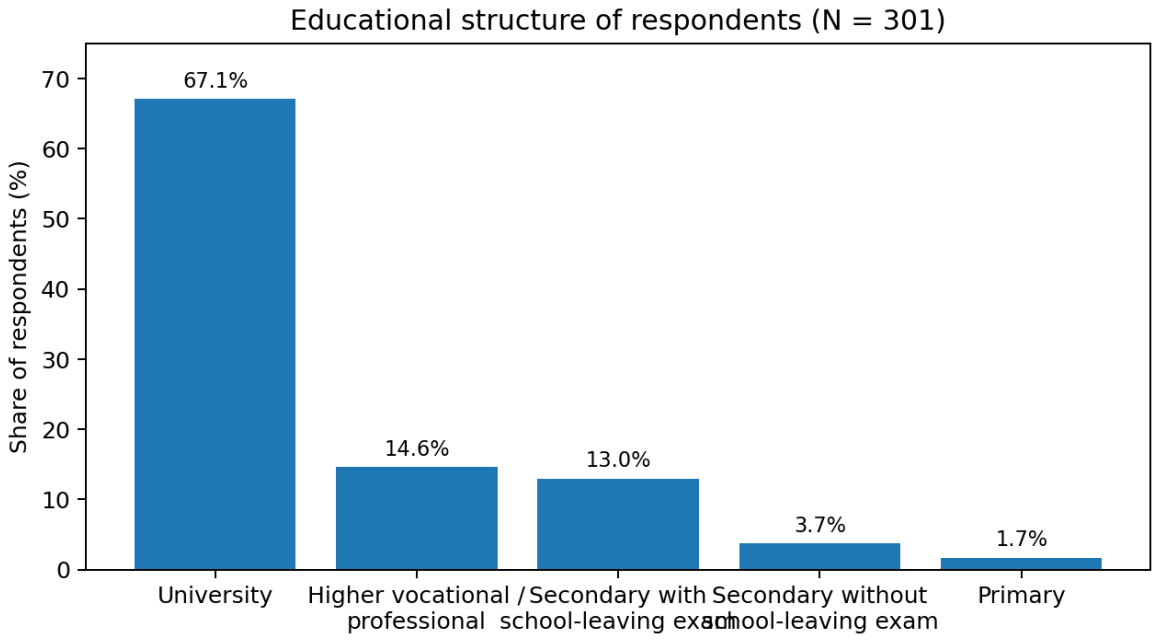


Figure 1. Educational structure of respondents in the overall sample (N = 301)

2.2 Regional attachment and quality of life

The results show that most respondents have a relatively strong attachment to the regions under study. A total of 101 respondents (33.6%) stated that they have a strong emotional attachment to the region and cannot imagine living elsewhere. A further 160 respondents (53.2%) reported that they are used to living in the region and would prefer not to move away. Only 40 respondents (13.3%) stated that they have no particular attachment to the region and could imagine leaving it. Overall, 86.8% of respondents therefore expressed some degree of preference for remaining in the region. This result is consistent with the previously noted residential stability of the sample, with almost three quarters of respondents having lived in the region since birth.

A strong attachment to the region does not, however, mean that respondents have never considered leaving. More than half of respondents (n = 156; 51.8%) stated that they had not considered leaving the region, while 131 respondents (43.5%) had considered this possibility occasionally and 14 respondents (4.7%) often. Thus, almost half of the sample had at least occasionally considered living outside their current region, even though most respondents simultaneously indicated that they would prefer not to move. The findings therefore suggest a distinction between emotional or social attachment to place and the practical conditions that may lead residents to consider leaving.

When asked about possible reasons for leaving, respondents could select multiple answers. The most frequently cited reason was a lack of job opportunities (n = 138; 45.8% of all respondents), followed by safety concerns (n = 107; 35.5%), low wages (n = 93; 30.9%), environmental quality (n = 90; 29.9%), and housing affordability (n = 78; 25.9%). Less frequently mentioned reasons included access to healthcare (n = 32; 10.6%), a lack of cultural life (n = 24; 8.0%), and a lack of high-quality educational opportunities (n = 15; 5.0%). In addition to the predefined options, respondents also mentioned individual reasons such as family circumstances, changes in employment, a desire for new life experiences, or a preference for a different living environment.

Despite these potential reasons for leaving, the overall assessment of quality of life was relatively positive. On a five-point scale, the mean score was 3.73, and the median was 4. The highest rating of 5 was selected by 41 respondents (13.6%), while a further 154 respondents (51.2%) selected a rating of 4. Overall, 64.8% of respondents rated their quality of life as 4 or 5. A neutral rating of 3 was selected by 93 respondents (30.9%), whereas only 13 respondents (4.3%) rated their quality of life as 1 or 2.

Taken together, the results indicate that the post-mining regions under study are not perceived by respondents solely through their economic or environmental problems. Strong residential and emotional attachment predominates, while most respondents also assess their quality of life relatively positively. Nevertheless, almost half of the respondents have at least occasionally considered leaving, mainly due to employment opportunities, wage levels, safety, environmental quality, and housing. Transformation policies should therefore focus not only on creating new economic opportunities but also on maintaining and strengthening the factors that support residents' long-term attachment to the region.

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Table 3 ***Regional attachment, consideration of leaving, and assessment of quality of life***

Indicator	n	%
Strong emotional attachment to the region	101	33.6
Used to living in the region; would prefer not to move	160	53.2
No particular attachment; could leave the region	40	13.3
Has not considered leaving	156	51.8
Has occasionally considered leaving	131	43.5
Has often considered leaving	14	4.7
Quality of life rated 4 or 5	195	64.8
Quality of life rated 1 or 2	13	4.3

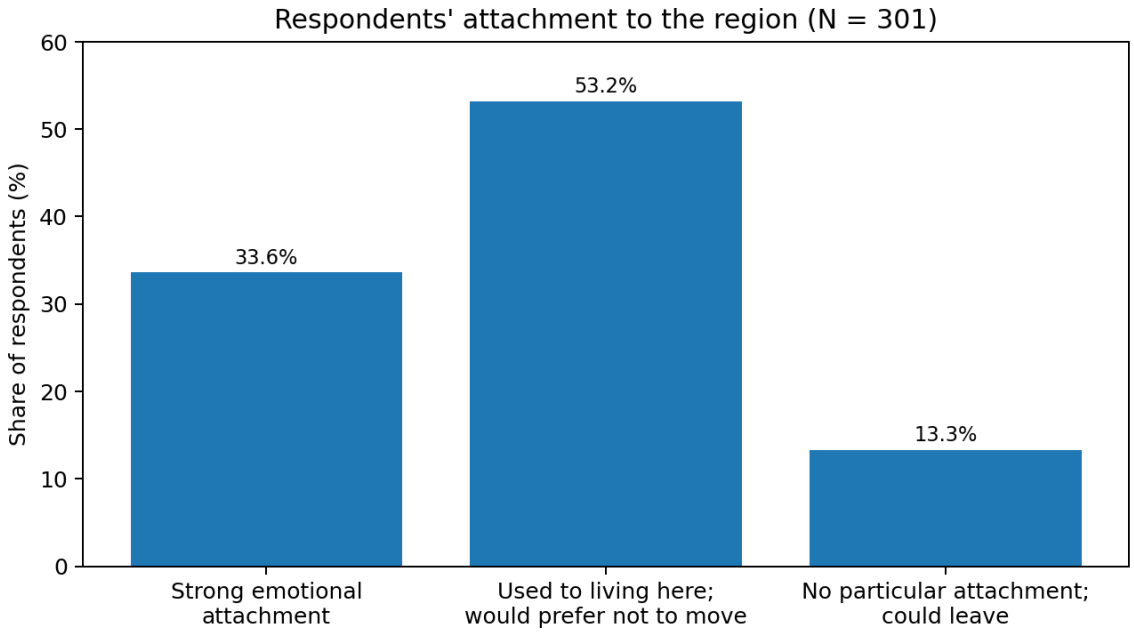


Figure 2. Respondents' attachment to the region (N = 301)

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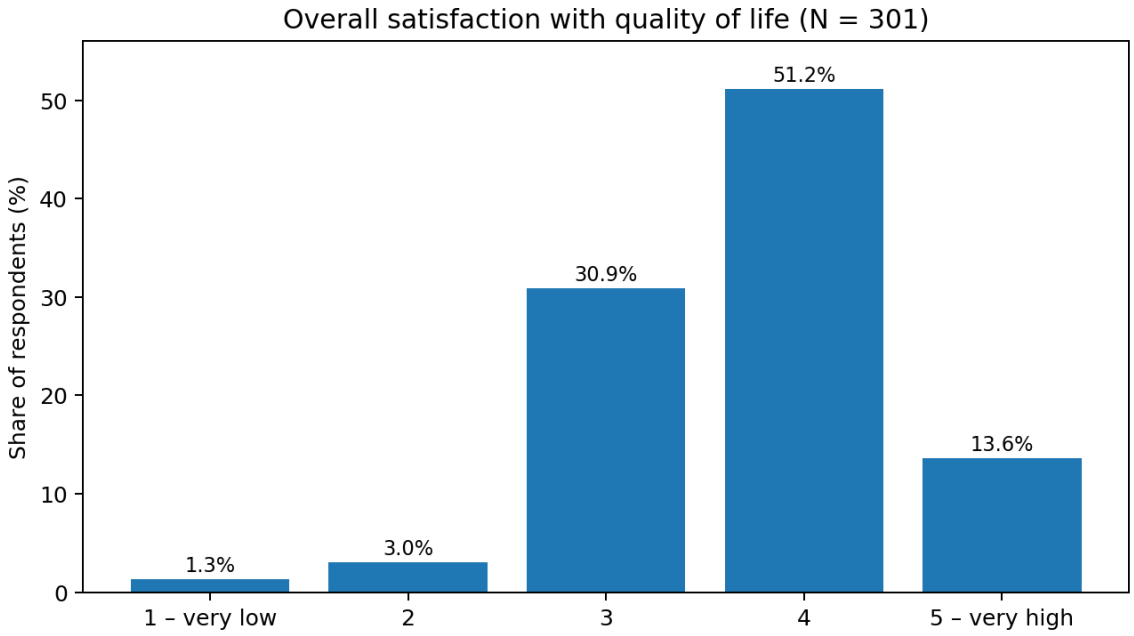


Figure 3. Overall assessment of quality of life on a five-point scale (N = 301)

Interpretation note: Respondents could select more than one option when indicating possible reasons for leaving; therefore, the percentages for individual reasons do not sum to 100%.

2.3 Specific regional problems

Following the assessment of overall quality of life, respondents were asked to evaluate the severity of ten specific problems that may affect life in mining and post-mining regions. Each item was rated on a four-point scale, where 1 indicated “not a problem”, 2 “a minor problem”, 3 “a moderately serious problem”, and 4 “a serious problem”. Respondents could also select “I do not know”; these responses were excluded from the calculation of means and from the percentage distribution of valid ratings.

Distrust in politics emerged clearly as the most serious problem. The mean rating reached 3.35 out of a maximum of 4 points, with a median of 4. Of the 280 respondents who provided a substantive rating for this item, 155 (55.4%) classified it as a serious problem and a further 82 (29.3%) as a moderately serious problem. In total, 84.6% of valid responses therefore regarded distrust in politics as a moderately serious or serious problem. This finding suggests that the challenges facing the regions under study are perceived not only in economic or environmental terms, but also strongly in relation to institutional trust and the way public decisions are made.

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The second highest-rated issue was young people leaving the region (mean 3.00; median 3). Of the 281 valid responses, 106 respondents (37.7%) considered this a serious problem and 86 (30.6%) a moderately serious problem. More than two-thirds of respondents (68.3%) therefore perceived youth outmigration as at least a moderately serious problem. This result is particularly important for the long-term demographic and economic sustainability of post-mining regions, as the ability to retain younger residents is closely linked to the availability of employment, housing, services, and the overall attractiveness of the region.

Housing availability (mean 2.96; median 3) and the lack of job opportunities (mean 2.87; median 3) received similarly high ratings. In the case of housing, 208 of the 292 respondents providing a valid answer (71.2%) classified the issue as moderately serious or serious. The same proportion, 210 of 295 respondents (71.2%), did so for job opportunities. The importance of employment is consistent with the findings presented in the previous chapter, where a lack of job opportunities was the most frequently cited reason for potentially leaving the region.

Environmental pollution received a mean rating of 2.73 and was classified as a moderately serious or serious problem by 177 of 298 respondents (59.4%). Drugs, gambling and social exclusion reached a mean of 2.64. This item also had a somewhat higher number of “I do not know” responses (17 respondents), which may reflect differences in respondents’ personal experience of these issues across individual localities. The condition of infrastructure received a mean rating of 2.57 and was perceived as moderately serious or serious by 152 of 297 respondents (51.2%).

Relatively lower mean ratings were recorded for the quality of healthcare (2.44), public safety and crime (2.44), and public transport (2.34). A lower mean does not, however, imply that these areas were considered unimportant. Public safety and crime were classified as moderately serious or serious by 132 of 298 respondents (44.3%), healthcare by 139 of 299 respondents (46.5%), and public transport by 126 of 294 respondents (42.9%). These findings should therefore be interpreted primarily as indicating the relative ranking of problems within the overall sample rather than the absence of problems in these areas.

Overall, the findings indicate that respondents perceive the challenges of post-mining regions as a combination of institutional, demographic, and socio-economic factors. Distrust in politics occupies the highest position, followed by concerns about youth outmigration, housing availability, and employment opportunities. Problems traditionally associated with post-mining areas, such as environmental pollution and the condition of infrastructure, remain important but do not occupy the highest positions in the aggregated assessment. For transformation policy, this suggests a need to combine economic and territorial measures with transparent governance, credible communication, and meaningful involvement of local residents in decision-making.

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Table 4 ***Assessment of specific regional problems***

Problem	Valid n	Mean	Median	Moderate + serious n	Moderate + serious %
Distrust in politics	280	3.35	4	237	84.6
Young people leaving the region	281	3.00	3	192	68.3
Housing availability	292	2.96	3	208	71.2
Lack of job opportunities	295	2.87	3	210	71.2
Environmental pollution	298	2.73	3	177	59.4
Drugs, gambling and social exclusion	284	2.64	3	155	54.6
Condition of infrastructure	297	2.57	3	152	51.2
Quality of healthcare	299	2.44	2	139	46.5
Public safety and crime	298	2.44	2	132	44.3
Public transport	294	2.34	2	126	42.9

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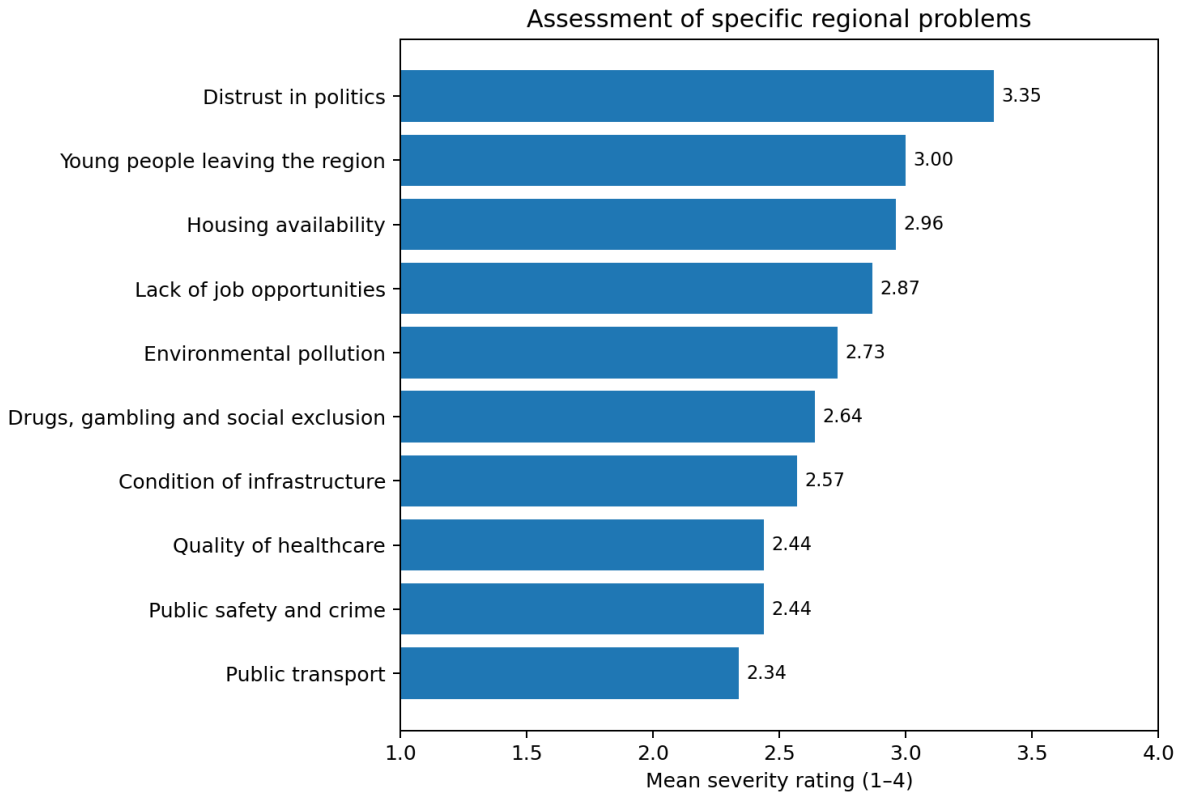


Figure 4. Mean severity ratings of specific regional problems on a 1–4 scale

Interpretation note: The "I do not know" option was coded as 99 in the dataset and treated as an invalid response when calculating means, medians, and the percentage distribution of ratings 1–4. Consequently, the number of valid responses varies slightly between individual items.

2.4 Perceptions of the region's future and expectations of transformation

Following the assessment of current quality of life and specific regional problems, the survey focused on the feelings respondents associate with the future of their region and the extent to which they expect positive impacts from the ongoing transformation. The results reveal a relatively complex picture in which positive expectations coexist with substantial uncertainty and concern.

When asked about feelings associated with the future of the region, respondents could select multiple options. Uncertainty was the most frequently reported feeling (n = 144; 47.8%), followed by hope (n = 129; 42.9%) and concern (n = 125; 41.5%). Optimism was selected by 100 respondents (33.2%). Pride (n = 51; 16.9%), fear (n = 35; 11.6%), and indifference (n = 25; 8.3%) were selected considerably less often. The simultaneous presence of hope, optimism, uncertainty, and concern suggests that respondents do not perceive the region's future as unequivocally positive or negative. Rather, the results point to cautious or conditional

optimism accompanied by uncertainty about the specific course and outcomes of the transformation.

This picture is also reflected in responses to the statement that the region has the potential for a successful future. On a five-point scale, the statement received a mean score of 3.77 and a median of 4. Agreement or strong agreement was expressed by 208 of 301 respondents (69.1%), whereas only 45 respondents (15.0%) disagreed or strongly disagreed. Thus, there is a prevailing belief that the post-mining regions under study have the potential for successful further development.

Respondents were somewhat more cautious when assessing the direct impact of transformation on their own lives. The statement that the transformation will improve their personal quality of life received a mean score of 3.49 and a median of 4. Of the 290 valid responses, 157 respondents (54.1%) agreed or strongly agreed, while 50 respondents (17.2%) disagreed or strongly disagreed. Approximately 28.6% selected the neutral midpoint of 3. The findings therefore indicate that general confidence in the future of the region is stronger than confidence in the specific personal benefits of transformation.

The least positively assessed statement in this group concerned the ability of the region to provide young people with sufficient reasons to stay. The mean score was 2.99, and the median was 3. Of the 294 valid responses, 112 respondents (38.1%) agreed or strongly agreed, while 104 respondents (35.4%) disagreed or strongly disagreed and 78 respondents (26.5%) selected the neutral midpoint. This finding directly corresponds with the previous chapter, in which young people leaving the region was identified as the second most serious regional problem. Creating conditions that encourage younger generations to remain in the region therefore appears to be one of the key challenges of the transformation process.

Respondents were also asked who they believed would benefit from the transformation. Benefits for future generations (mean 3.41; median 4) and local businesses (mean 3.33; median 4) received the most positive assessments. In both cases, approximately 52.6% of respondents providing a valid answer agreed or strongly agreed. Respondents were more cautious regarding benefits for local residents, for which the mean score was 3.15, and the median was 3; 117 of 289 respondents with valid answers (40.5%) agreed or strongly agreed. This may indicate some uncertainty as to whether the benefits of transformation investments will actually be transferred from the level of projects and institutions to ordinary residents of the affected regions.

Overall, the results indicate that respondents do not perceive post-mining regions as areas without prospects. On the contrary, most believe in the possibility of a successful future, and more than half expect the transformation to have a positive impact on their own quality of life. This optimism is not unconditional, however. It is accompanied by high levels of uncertainty

and concern, weaker confidence in the regions' ability to retain young people, and more cautious assessments of whether local residents will directly benefit from the transformation. The findings therefore support an interpretation of transformation as a process approached with hope, but whose legitimacy will depend on whether the declared benefits become visible in the everyday lives of local communities.

Table 5 ***Expectations regarding the future of the region and transformation***

Statement	Valid n	Mean	Median	Agree + strongly agree n	Agree + strongly agree %
The region has a successful future	301	3.77	4	208	69.1
The transformation will improve my quality of life	290	3.49	4	157	54.1
Young people have reasons to stay in the region	294	2.99	3	112	38.1
Local businesses will benefit from the transformation	287	3.33	4	151	52.6
Future generations will benefit from the transformation	291	3.41	4	153	52.6
Local residents will benefit from the transformation	289	3.15	3	117	40.5

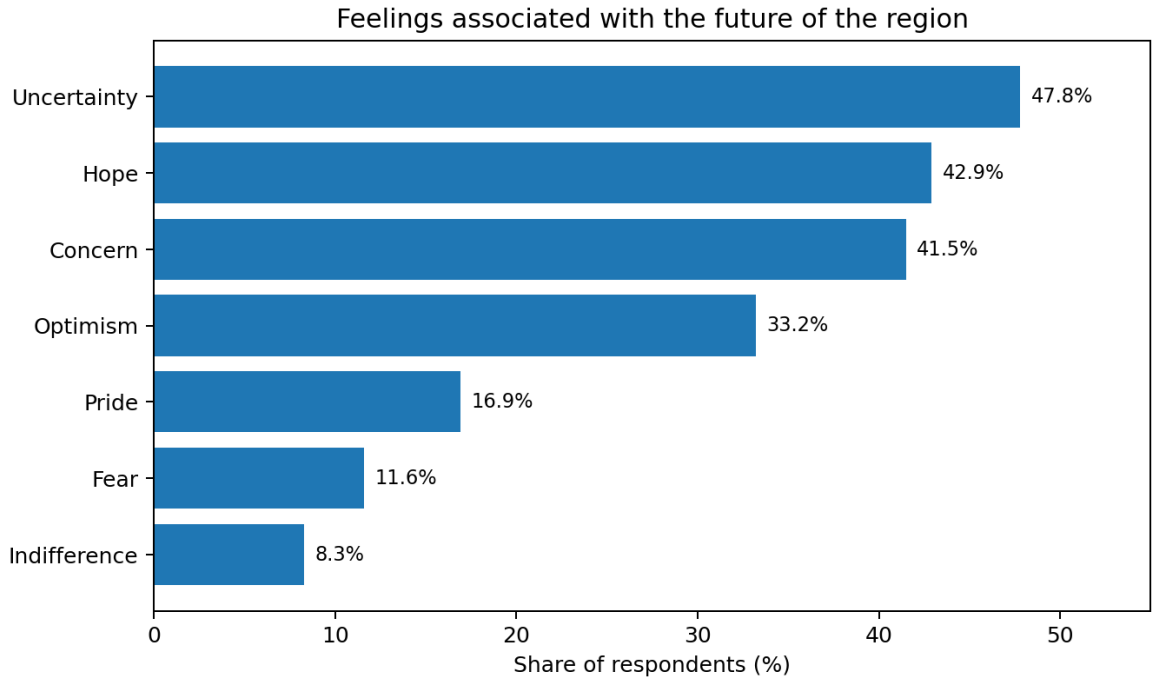


Figure 5. Feelings associated with the future of the region (N = 301)

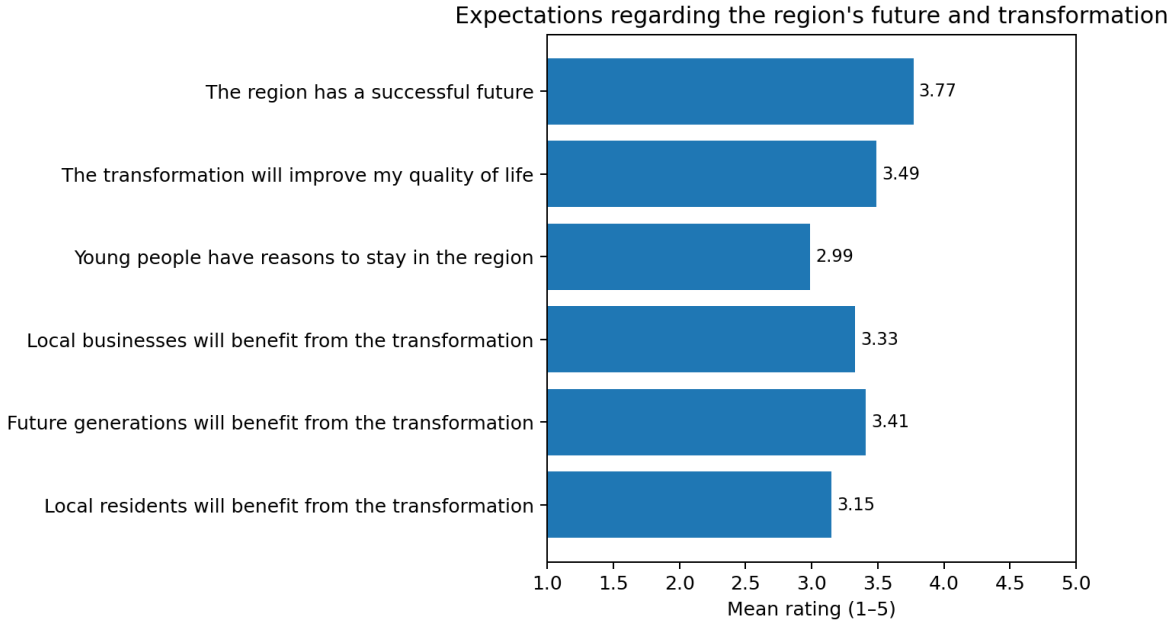


Figure 6. Mean ratings of expectations regarding the region's future and transformation on a 1–5 scale

Interpretation note: Respondents could select more than one option in the question concerning feelings, and the percentages therefore do not sum to 100%. For the scale-based statements, only valid responses from 1 to 5 were used. Statements concerning political vision, the use of public funds, and citizens' influence will be analysed in the chapter on transformation governance and participation.

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2.5 Awareness of transformation and its funding

Public awareness is an important prerequisite for understanding the transformation process and for residents' potential involvement in decision-making. The survey therefore examined both respondents' self-perceived level of information about the transformation of their region and the areas in which they felt information was most lacking. Basic awareness that the transformation process may receive financial support from European or national funding sources was also assessed separately.

Only 33 respondents (11.0%) considered themselves very well informed. The largest group consisted of respondents who felt moderately informed (n = 163; 54.2%). A total of 91 respondents (30.2%) reported being rather poorly informed, while a further 14 (4.7%) stated that they were not informed at all or had never heard about the transformation. Overall, 34.9% of respondents therefore considered themselves rather poorly informed or not informed at all. At the same time, the category "moderately informed" does not imply comprehensive knowledge of the transformation process. The results therefore indicate that most respondents have at least some basic awareness of the transformation, but only a small proportion consider themselves genuinely very well informed.

The question concerning missing information allowed respondents to select more than one answer. Information about planned projects was most frequently identified as lacking (n = 116; 38.5% of all respondents). This was followed by information on how public funds are used and information on the specific impacts of transformation on ordinary residents, each selected by 92 respondents (30.6%). Clearly explained transformation objectives were lacking for 89 respondents (29.6%), while 74 respondents (24.6%) indicated a need for information about, or opportunities for, participation in decision-making. Information about job opportunities was lacking for 53 respondents (17.6%). Only 28 respondents (9.3%) stated that they did not actively seek information on this topic.

The structure of the information gaps is important from the perspective of transformation governance. Respondents do not merely require general information that transformation is taking place; they primarily seek specific and practically useful information: which projects are planned, how public funds are being spent, what impacts can be expected in residents' everyday lives, and how citizens can become involved in the process. The information deficit therefore concerns not only the quantity of available information, but also its specificity, clarity, and relevance to local communities.

Basic awareness of financial support for transformation is relatively high. A total of 233 respondents (77.4%) stated that they were aware that their region could receive financial support from European or national funds, while 68 respondents (22.6%) were not aware of this possibility. This finding should, however, be interpreted with caution. The question

assessed only general awareness of the existence of European or national transformation funding, rather than detailed knowledge of specific financial instruments, their rules, available funding volumes, or individual supported projects.

The relationship between self-perceived information and awareness of funding is also noteworthy. Among the 33 respondents who considered themselves very well informed, 30 (90.9%) were aware of the possibility of European or national funding. Among moderately informed respondents, this applied to 137 of 163 respondents (84.0%), compared with 58 of 91 respondents (63.7%) among those who considered themselves rather poorly informed. This descriptive association suggests that higher self-perceived levels of information are associated with greater awareness of funding instruments. The statistical significance of this relationship should be tested in the subsequent analytical section.

Overall, the findings indicate that the main problem is not a complete lack of awareness of the transformation. Most respondents have at least some basic information about the transformation process and the possibility of its public funding. The weaker point is rather the depth and practical usefulness of this information. Successful transformation governance therefore requires more than simply communicating the existence of programmes and projects; it is important to explain clearly their objectives, locations, use of public funds, expected impacts on residents, and opportunities for public involvement.

Table 6 ***Awareness of transformation and its funding***

Indicator	n	%
Very well informed about the transformation	33	11.0
Moderately informed	163	54.2
Rather poorly informed	91	30.2
Not informed at all / never heard about the transformation	14	4.7
Aware of the possibility of European or national funding	233	77.4
Not aware of the possibility of European or national funding	68	22.6

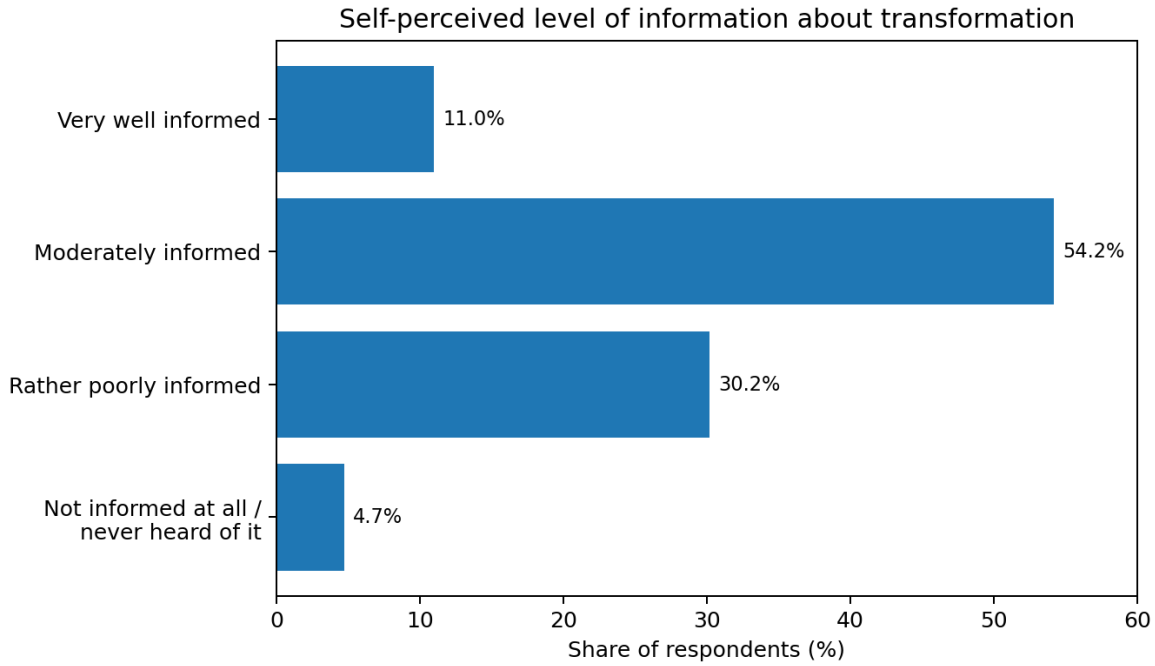


Figure 7. Respondents' self-perceived level of information about regional transformation (N = 301)

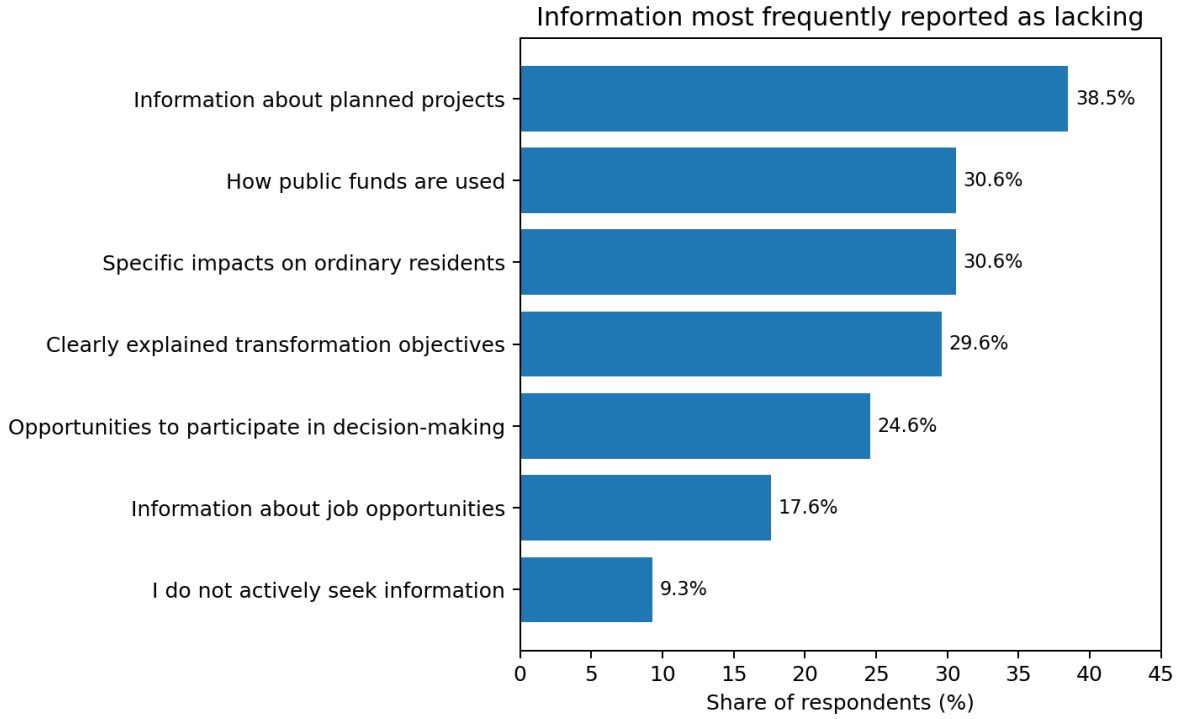


Figure 8. Information most frequently reported as lacking in relation to transformation (N = 301)

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Interpretation note: Respondents could select more than one option in the question concerning missing information, and the percentages therefore do not sum to 100%. The funding question assessed only general awareness of the possibility of support from European or national funds and cannot be interpreted as evidence of detailed knowledge of specific funds or projects. Moreover, the specific projects differed between countries and regions; awareness of individual projects is therefore more appropriately assessed in the separate national analyses than in the aggregated analysis of the overall sample.

2.6 Transformation priorities and future economic direction

Following the assessment of awareness of the transformation, respondents were asked to identify the areas on which the transformation process should primarily focus and the economic sectors that should form the basis of the region's future development. In both questions, respondents could select a maximum of three options. The results therefore show the share of respondents who included each option among their main priorities, and the percentages do not sum to 100%.

Creating new and high-quality jobs was clearly the highest transformation priority. This option was selected by 205 of 301 respondents (68.1%), representing more than two-thirds of the overall sample. This finding directly follows from the previous results: a lack of job opportunities was among the most highly rated regional problems and was also the most frequently cited reason for potentially leaving the region. Employment therefore represents a cross-cutting issue linking current regional problems with expectations regarding future transformation.

The second most frequently selected priority was improvement of the environment (n = 118; 39.2%). Attracting new investors received very similar support (n = 114; 37.9%), as did support for local small and medium-sized enterprises (n = 111; 36.9%). The findings therefore do not indicate a one-sided preference for a single model of economic development. Alongside attracting new investors, respondents attach almost equal importance to strengthening the local business base, while also expecting environmental improvement in post-mining areas.

A second group of priorities included improving access to affordable housing (n = 84; 27.9%) and expanding education and retraining programmes (n = 75; 24.9%). Public transport and regional accessibility (16.9%), healthcare services and infrastructure (13.0%), tourism and recreational areas (7.6%), and cultural and community life (7.3%) were less frequently ranked among the three highest priorities. Their lower frequency does not mean that these areas are considered unimportant; because respondents were required to select only three priorities, the results primarily indicate their relative ranking.

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Responses concerning future economic direction also reveal a relatively clear orientation towards diversification and knowledge- and technology-based sectors. Modern technologies and innovation were selected by 193 respondents (64.1%), substantially more than any other option. These were followed by research, science and university development (n = 125; 41.5%), renewable energy and green technologies (n = 123; 40.9%), and small and medium-sized enterprises (n = 113; 37.5%).

Traditional manufacturing remains important for part of the sample, but it was included among the three preferred sectors by 87 respondents (28.9%). Healthcare and social services were selected by 70 respondents (23.3%). Lower levels of support were recorded for tourism and leisure (13.3%), sustainable agriculture and food production (13.0%), logistics and transport (11.0%), and cultural and creative industries (8.6%). The aggregated results therefore support economic diversification rather than replacing mining with a single new dominant sector.

This interpretation is complemented by the question asking whether respondents preferred faster economic growth and new investment even at the cost of more substantial changes to the landscape, or protection of natural and historical heritage even at the cost of slower economic growth. More than half of respondents (n = 159; 52.8%) preferred a combination of both approaches. Protection of natural and historical heritage was preferred by 78 respondents (25.9%), while 59 respondents (19.6%) preferred faster growth and investment; only 5 respondents (1.7%) answered that they did not know. The prevailing position can therefore be characterised neither as purely growth-oriented nor purely conservation-oriented. Respondents instead appear to expect a balanced transformation combining the creation of high-quality jobs and new economic activities with environmental restoration and preservation of regional values.

Overall, the results show that residents' expectations of transformation are strongly oriented towards economic prospects, but not merely in terms of the volume of investment. The key demand is for high-quality jobs, while the preferred future direction combines modern technologies, research and education, green technologies, local entrepreneurship, and a degree of continuity in manufacturing. From the perspective of transformation policy, the findings therefore support a diversified development model linking innovation and job creation with environmental restoration and quality of life.

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Table 7 ***Highest transformation priorities and preferred economic sectors***

Priority/sector	n	% of respondents
New and high-quality jobs	205	68.1
Improvement of the environment	118	39.2
Attracting new investors	114	37.9
Support for local SMEs	111	36.9
More accessible and affordable housing	84	27.9
Education and retraining	75	24.9
Public transport and regional accessibility	51	16.9
Healthcare services and infrastructure	39	13.0
Tourism and recreational areas	23	7.6
Cultural and community life	22	7.3
Preferred economic sectors		
Modern technologies and innovation	193	64.1
Research, science and university development	125	41.5
Renewable energy and green technologies	123	40.9
Small and medium-sized enterprises	113	37.5
Manufacturing industry	87	28.9
Healthcare and social services	70	23.3
Tourism and leisure	40	13.3
Sustainable agriculture and food production	39	13.0
Logistics and transport	33	11.0
Cultural and creative industries	26	8.6

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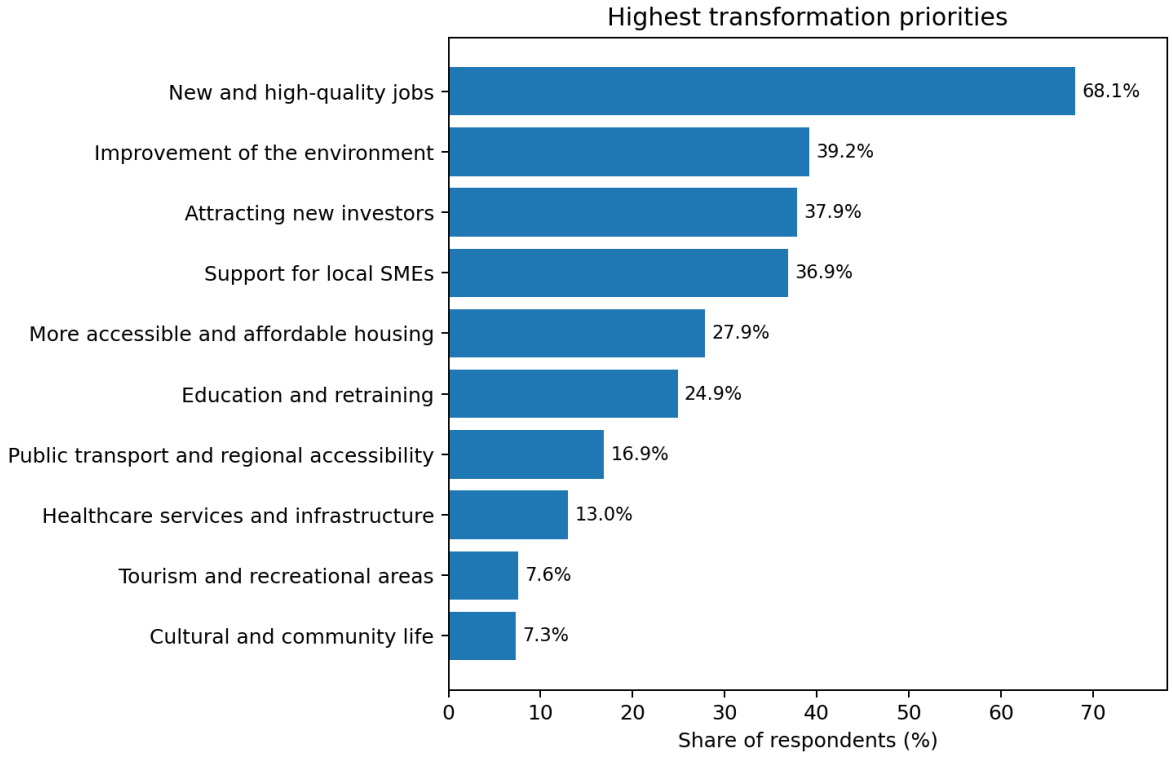


Figure 9. Highest regional transformation priorities (maximum 3 responses; N = 301)

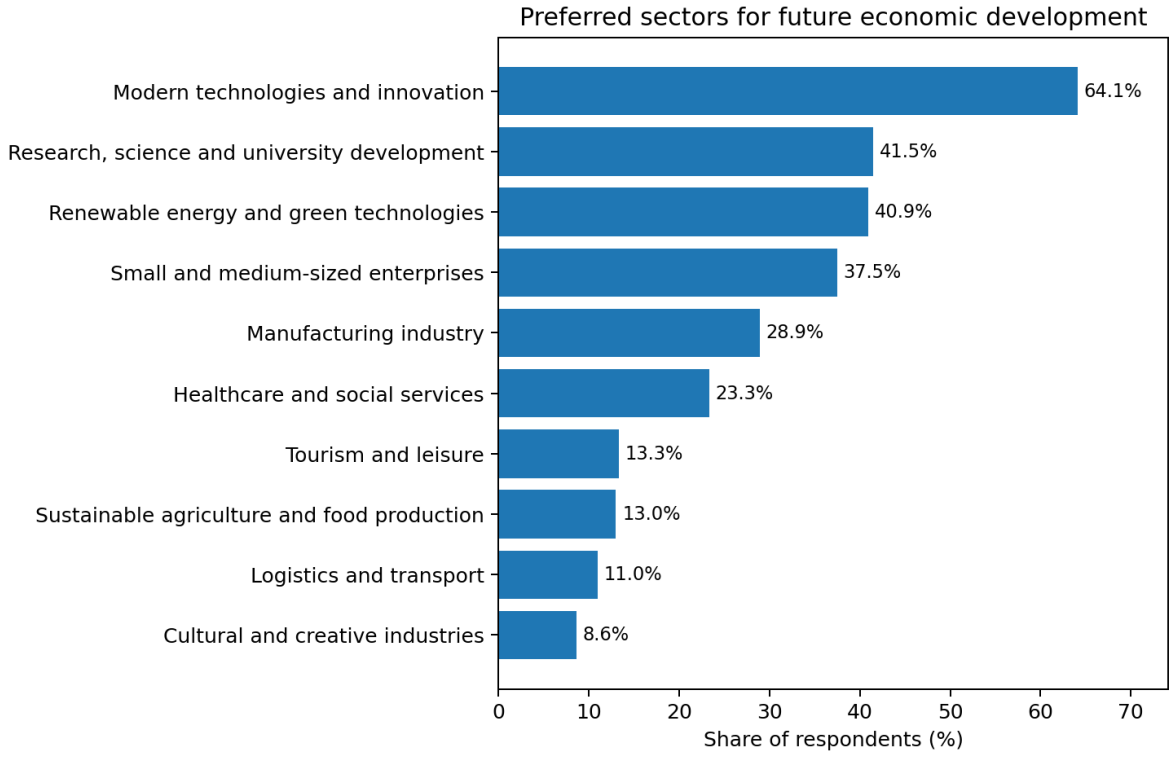


Figure 10. Preferred economic sectors for future regional development (maximum 3 responses; N = 301)

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Interpretation note: In the questions on transformation priorities and preferred economic sectors, respondents could select a maximum of three options; therefore, the percentages do not sum to 100%. Individual "Other" responses were highly diverse and, due to their low frequency, are not presented separately in the aggregated overview.

2.7 Concerns related to transformation

In addition to expected benefits and preferred priorities, the survey also focused on the risks that respondents associate with the transformation process. Respondents could select a maximum of three main concerns. The results therefore do not represent a general level of opposition to transformation but rather indicate which potential negative impacts or shortcomings of the process residents consider most significant.

The most frequently reported concern was corruption and inefficient use of public funds, selected by 168 of 301 respondents (55.8%). Job losses and rising unemployment were reported almost equally often (n = 166; 55.1%). These two concerns clearly exceeded all other options and represent two distinct but interconnected dimensions of the transformation process: trust in the management of public resources and concern about the economic and social consequences of structural change.

The strong concern about corruption and inefficient use of funds is consistent with the previous findings. Distrust in politics was rated as the most serious specific regional problem in Section 2.3, while information on how public funds are used was among the types of information most frequently reported as lacking in Section 2.5. The results therefore suggest that, for some respondents, the key issue is not only the amount of funding available for transformation, but also the transparency, efficiency, and credibility of its use.

Concern about job losses and rising unemployment is similarly consistent with the preceding sections of the survey. A lack of job opportunities was the most frequently cited reason for potentially leaving the region, while creating new and high-quality jobs emerged as the clearly dominant transformation priority. Although transformation policies aim to create new economic opportunities, more than half of respondents simultaneously fear that the process itself may result in job losses or increased unemployment. This highlights the importance not only of the number of newly created jobs, but also of their quality, accessibility to local residents, and the timing between the decline of traditional industries and the emergence of new employment opportunities.

The third most frequent concern was that large companies would benefit from the transformation while local residents would be left behind (n = 98; 32.6%). This concern is important from the perspective of the fair distribution of transformation benefits and complements the findings presented in Section 2.4, where respondents assessed the benefits of transformation for local residents more cautiously than its benefits for future generations

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or local businesses. The results therefore indicate that residents are sensitive to the question of who actually benefits from transformation investments.

Approximately one third of respondents were also concerned about excessive transformation costs for taxpayers (n = 92; 30.6%) and decision-making without citizen involvement (n = 91; 30.2%). The latter finding is particularly important in connection with the high level of political distrust and will be further developed in the section dealing with participation and trust in institutions. It indicates that some residents perceive transformation not only as a technical or economic process, but also as a question of decision-making legitimacy and the ability of local communities to influence its direction.

Less frequently included among the three main concerns were a lack of clear information for residents (n = 69; 22.9%), further damage to the landscape and environment (n = 53; 17.6%), and the possibility that, despite transformation programmes, nothing substantial will actually change (n = 46; 15.3%). Their lower frequency should not be interpreted as indicating that these issues are unimportant, because respondents were limited to a maximum of three choices. In particular, the information deficit had already emerged as an important issue in the preceding section.

Overall, respondents' concerns can be grouped into three interrelated areas. The first is economic and social security, particularly the preservation and creation of employment. The second concerns the credibility and quality of transformation governance, including corruption, efficient use of public funds, transparency, and citizen involvement. The third concerns the fair distribution of benefits between large investors and local communities. The results therefore indicate that residents will judge the success of transformation not only by the volume of investment or the number of projects implemented, but also by whether new opportunities are accessible to local people, public funds are used transparently, and residents are able to influence decision-making.

Table 8 ***Main concerns reported by respondents in relation to regional transformation***

Concern	n	% of respondents
Corruption and inefficient use of public funds	168	55.8
Job losses and rising unemployment	166	55.1
Large companies will benefit while local people are left behind	98	32.6

Excessive transformation costs for taxpayers	92	30.6
Decision-making without citizen involvement	91	30.2
Lack of clear information for residents	69	22.9
Further damage to the landscape and environment	53	17.6
Concern that nothing will actually change	46	15.3

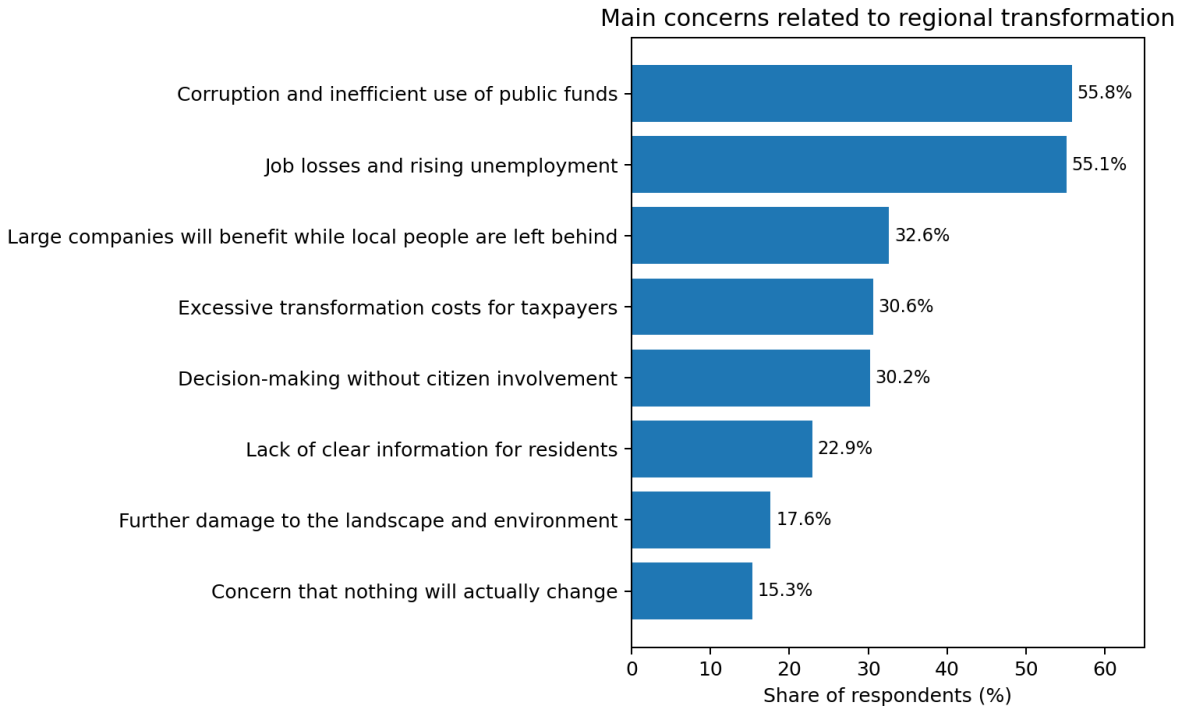


Figure 11. Main concerns related to regional transformation (maximum 3 responses; N = 301)

Interpretation note: Respondents could select a maximum of three concerns; therefore, the percentages do not sum to 100%. Individual "Other" responses were highly diverse and, due to their low frequency, are not presented separately in the aggregated overview.

2.8 Funding, strategic projects and territorial justice

The issue of funding transformation projects is related not only to the number of available resources, but also to their territorial allocation, the types of sites supported, and the scale of implemented projects. The questionnaire therefore examined whether investments should be preferentially directed towards municipalities most affected by mining and towards brownfields, how respondents perceive projects implemented outside former mining areas, the use of high-quality agricultural land, and the need to commute to new jobs. Preferences regarding large strategic projects versus smaller local projects were also examined separately.

The strongest consensus was recorded for giving priority to the reuse of brownfields and abandoned industrial sites. This statement achieved a mean score of 4.18 out of 5 and a median of 4. Of the 296 valid responses, 236 respondents (79.7%) agreed or strongly agreed. Brownfields therefore represent the clearest element of territorial justice in the overall sample. Respondents evidently prefer transformation investments to contribute to the reuse of areas directly affected by previous industrial and mining activities.

Strong support was also recorded for the statement that new projects should primarily be located in municipalities most affected by mining (mean 3.84; median 4). Agreement or strong agreement was expressed by 203 of the 295 respondents with valid answers (68.8%). This result supports the principle of territorially targeting transformation resources towards locations that have borne the greatest economic, social, and environmental consequences of mining.

At the same time, respondents' attitudes reveal a pronounced pragmatic element. The statement that projects may also be implemented outside former mining areas if they create jobs achieved the same mean score of 3.84 and a median of 4; 210 of 298 respondents (70.5%) agreed or strongly agreed. The results therefore cannot be interpreted as a demand that all transformation investments, without exception, should be located only in the most affected municipalities. Respondents simultaneously support the principle of territorial compensation and the economic effectiveness of projects, particularly when they generate new employment opportunities.

This apparent duality is clarified by the direct question on the location of strategic projects. A total of 159 respondents (52.8%) favoured the view that strategic projects should primarily be implemented in the most affected areas and on brownfields, even if this is more complicated or expensive. In contrast, 122 respondents (40.5%) preferred projects to be located where they would generate the greatest economic benefits, even outside former mining areas; 20 respondents (6.6%) were unable to choose between the two approaches. The preference for territorial justice is therefore evident, but not absolute.

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Protection of high-quality agricultural land from new industrial development also received substantial support. The mean score was 3.80 and the median 4; 185 of the 297 respondents with valid answers (62.3%) agreed or strongly agreed. Combined with the very strong support for brownfield redevelopment, this result indicates a clear preference for regenerating previously used and degraded land rather than developing high-quality agricultural land.

Attitudes towards commuting to jobs outside former mining areas were less clear-cut. The statement that such commuting represents a serious problem for local residents achieved a mean score of 3.28 and a median of 3. Of the 275 valid responses, 134 respondents (48.7%) agreed or strongly agreed. The result indicates that the geographical accessibility of new jobs is relevant for a substantial proportion of residents, although views on the acceptability of commuting are more divided than attitudes towards brownfield redevelopment or the protection of agricultural land.

The relationship between local projects and large regional investments is similarly differentiated. The statement that public funds should support smaller local projects rather than large supra-regional investments achieved a mean score of 3.45 and a median of 4; exactly half of respondents with valid answers agreed or strongly agreed (145 of 290; 50.0%). However, the direct choice concerning project scale shows that most respondents do not wish to place the two approaches in opposition. A combination of large strategic and smaller local projects was preferred by 239 respondents (79.4%), compared with 47 respondents (15.6%) preferring smaller local projects only and just 14 respondents (4.7%) preferring a few large strategic projects.

Overall, the results support a concept of territorial justice that is not based on a rigid requirement to locate all investments exclusively in former mining areas. Respondents strongly prefer brownfield regeneration, the protection of high-quality agricultural land, and a degree of priority for the most affected municipalities, while at the same time they are willing to accept projects outside these areas if they deliver substantial economic benefits and jobs. Similarly, they do not support a one-sided focus exclusively on either large strategic projects or small local projects. The prevailing preference for a combination of both scales suggests a demand for a balanced investment portfolio in which regional strategic objectives are linked to tangible benefits for local communities.

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Table 9 ***Assessment of funding, project location and territorial justice***

Statement	Valid n	Mean	Median	Agree + strongly agree n	Agree + strongly agree %
Brownfields should be given priority	296	4.18	4	236	79.7
Projects should primarily be located in the municipalities most affected by mining	295	3.84	4	203	68.8
Projects outside mining areas are acceptable if they create jobs	298	3.84	4	210	70.5
High-quality agricultural land should be protected	297	3.80	4	185	62.3
Local projects should be prioritised over supra-regional investments	290	3.45	4	145	50.0
Commuting for work outside former mining areas is a problem	275	3.28	3	134	48.7

Table 10 ***Preferences regarding the location and scale of strategic projects***

Preference	n	% of respondents
Strategic projects primarily in the most affected areas and on brownfields	159	52.8
Strategic projects where they generate the greatest economic benefits	122	40.5
Don't know	20	6.6
Preferred scale of project support		
Combination of large strategic and smaller local projects	239	79.4
Smaller local projects	47	15.6
A few large strategic projects	14	4.7
Don't know	1	0.3

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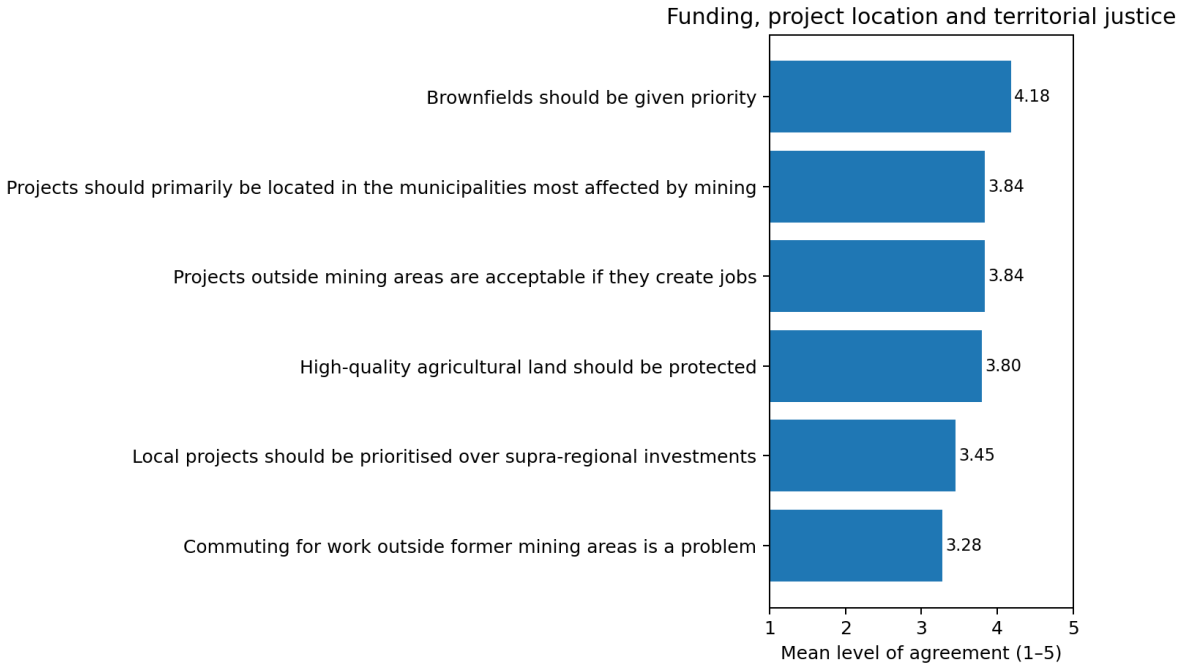


Figure 12. Mean assessment of statements on funding, project location and territorial justice on a 1–5 scale

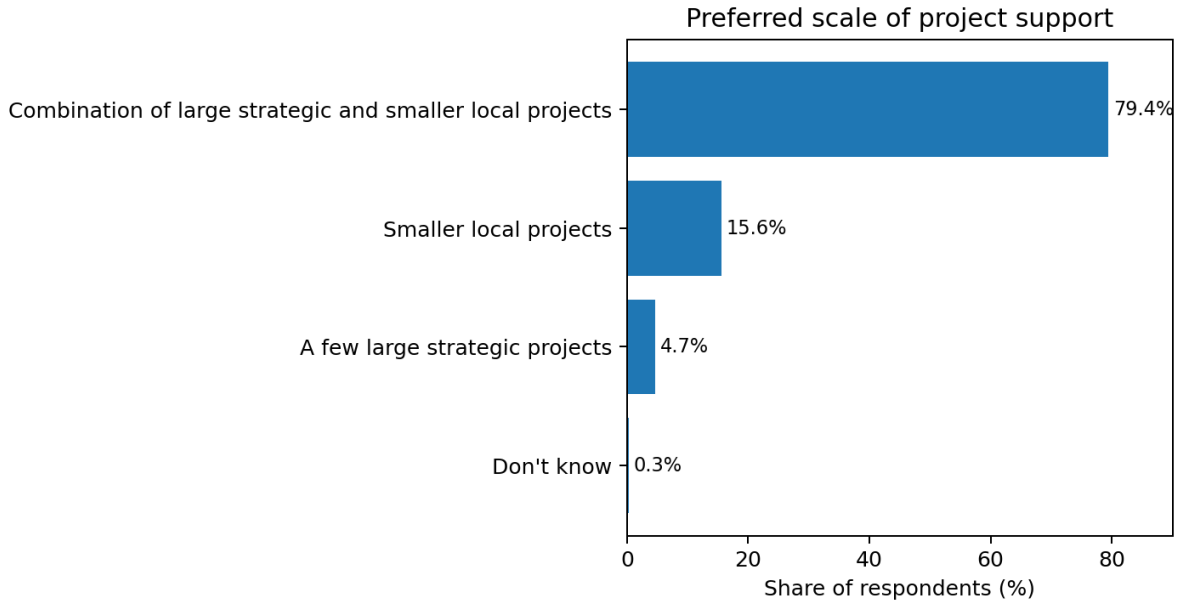


Figure 13. Preferred scale of support for transformation projects (N = 301)

Interpretation note: For the scale-based statements, only valid responses from 1 to 5 were used to calculate means, medians, and percentages; “Don't know” responses were excluded. The questions on the location of strategic projects and the preferred scale of support were single-choice questions, and the percentages refer to the full sample (N = 301).

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2.9 Citizen participation and trust in institutions

Citizen participation and trust in institutions are important components of the legitimacy of the transformation process. The questionnaire therefore examined how much influence respondents believe individual actors should have on decisions about the future of the region, how much they trust different institutions, whether they consider residents' current influence sufficient, and whether they would personally be willing to participate in activities related to the region's future development. Preferred forms of participation and the main barriers to greater involvement were also examined.

According to respondents, the greatest influence on decision-making should be held by local municipalities and mayors (mean 3.97 out of 5), closely followed by the citizens of the region themselves (3.96). Strong or very strong influence was assigned to municipalities and mayors by 226 of 295 respondents with valid answers (76.6%), and to citizens by 209 of 296 respondents (70.6%). Local businesses and small employers also received very strong support (mean 3.85; 70.5% strong or very strong influence). The results therefore reveal a clear preference for actors that are directly embedded in the region and closely connected to local communities.

Respondents also assign an important role to universities and research centres (mean 3.65; 60.2% strong or very strong influence) and to regional government and politicians (3.51; 55.6%). In contrast, substantially lower desired influence was attributed to large external investors (2.99), the national government (2.94), non-governmental organisations (2.94), and especially the European Union (2.57). This result does not imply rejection of these actors, but rather suggests a preference for a more subsidiary model of decision-making in which local governments, citizens, local economic actors, and expert institutions carry the greatest weight.

A similar hierarchy can be observed in levels of trust, although the ranking is not identical. Universities enjoy the highest level of trust, with a mean score of 3.96; 259 of 300 respondents (86.3%) rather or definitely trusted them. They are followed by local companies (mean 3.74; 78.0%) and local government (3.38; 67.3%). Regional politics achieved a mean of 3.07, with 55.0% of respondents rather or definitely trusting it. Lower levels of trust were recorded for NGOs (2.99), the European Union (2.73), and especially the national government (2.34; only 27.3% rather or definitely trusting it).

The low level of trust in political decision-making is consistent with previous findings. Distrust in politics was rated as the most serious specific regional problem, while corruption and ineffective use of public funds represented the most frequently reported concern associated with transformation. Statements in the section dealing with the region's future also indicate considerable scepticism: only 16.0% of respondents with valid answers agreed or strongly agreed that decision-makers have a clear vision for the region's future (mean 2.34), and only

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27.2% felt that their own opinion matters in decisions about the region's future (mean 2.63). Respondents were similarly cautious in assessing whether public funds are used effectively (mean 2.71; 26.5% agreement or strong agreement).

The perception of insufficient citizen influence is also clearly evident in the direct question. A total of 228 of 301 respondents (75.8%) stated that residents currently rather or definitely do not have sufficient influence over decisions about the region's future. Only 54 respondents (17.9%) held the opposite view, while 19 respondents (6.3%) selected a neutral or "don't know" response. Combined with the high desired level of citizen influence, this represents one of the clearest gaps between the preferred and perceived situation identified in the survey.

At the same time, the results indicate considerable potential for more active participation. A total of 234 respondents (77.7%) stated that they would definitely or rather be willing to participate personally in activities or initiatives related to the region's future development. Only 37 respondents (12.3%) expressed unwillingness, while 30 respondents (10.0%) selected a neutral or "don't know" response. The low perceived influence of citizens therefore cannot simply be explained by a lack of interest; on the contrary, there is relatively broad declared willingness to become involved.

The most preferred form of participation is online consultation and surveys, selected by 166 respondents (55.1%), followed by public meetings and workshops (n = 148; 49.2%). Hands-on volunteering activities were preferred by 90 respondents (29.9%), citizen panels by 85 (28.2%), participatory budgeting initiatives by 79 (26.2%), and participation through local associations and NGOs by 76 respondents (25.2%). Only 31 respondents (10.3%) explicitly stated that they were not interested in participating. The results support a combination of digital and face-to-face forms of engagement rather than reliance on a single participation mechanism.

The main barrier to greater involvement is a lack of personal time (n = 160; 53.2%), followed by a lack of clear information about opportunities to participate (n = 147; 48.8%). Scepticism about the actual impact of participation is also significant: 121 respondents (40.2%) reported a belief that decisions are made regardless of citizens' opinions. Lack of trust in public institutions was selected by 72 respondents (23.9%), poor communication from authorities by 70 (23.3%), and a lack of accessible opportunities to participate locally by 68 respondents (22.6%). In contrast, lack of interest in regional development topics was reported by only 10 respondents (3.3%).

Overall, the results indicate strong demand for a more participatory and locally embedded approach to transformation governance. Respondents want municipalities, citizens, local businesses, and expert institutions to have substantial influence, while universities and local actors are also among the most trusted. At the same time, three quarters of respondents consider residents' current influence insufficient, even though a similarly high proportion

declare willingness to become personally involved. The key challenge is therefore not only citizen motivation, but also the creation of credible, accessible, and clearly communicated participation mechanisms through which residents can be confident that their involvement can genuinely influence decision-making.

Table 11 ***Desired influence of individual actors on decisions about the region's future***

Actor	Valid n	Mean	Median	Strong + very strong influence n	Strong + very strong influence %
Municipalities and mayors	295	3.97	4	226	76.6
Citizens of the region	296	3.96	4	209	70.6
Local businesses and small employers	295	3.85	4	208	70.5
Universities and research centres	294	3.65	4	177	60.2
Regional government and politicians	295	3.51	4	164	55.6
Non-governmental organisations (NGOs)	287	2.94	3	92	32.1
Large external investors and companies	294	2.99	3	79	26.9
National government	296	2.94	3	76	25.7
European Union	294	2.57	3	51	17.3

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Table 12 ***Respondents' trust in institutions and actors***

Institution/actor	Valid n	Mean	Median	Rather + definitely trusts n	Rather + definitely trusts %
Universities	300	3.96	4	259	86.3
Local companies	300	3.74	4	234	78.0
Local government	300	3.38	4	202	67.3
Regional politics	300	3.07	4	165	55.0
Non-governmental organisations (NGOs)	300	2.99	3	137	45.7
European Union	300	2.73	2	133	44.3
National government	300	2.34	2	82	27.3

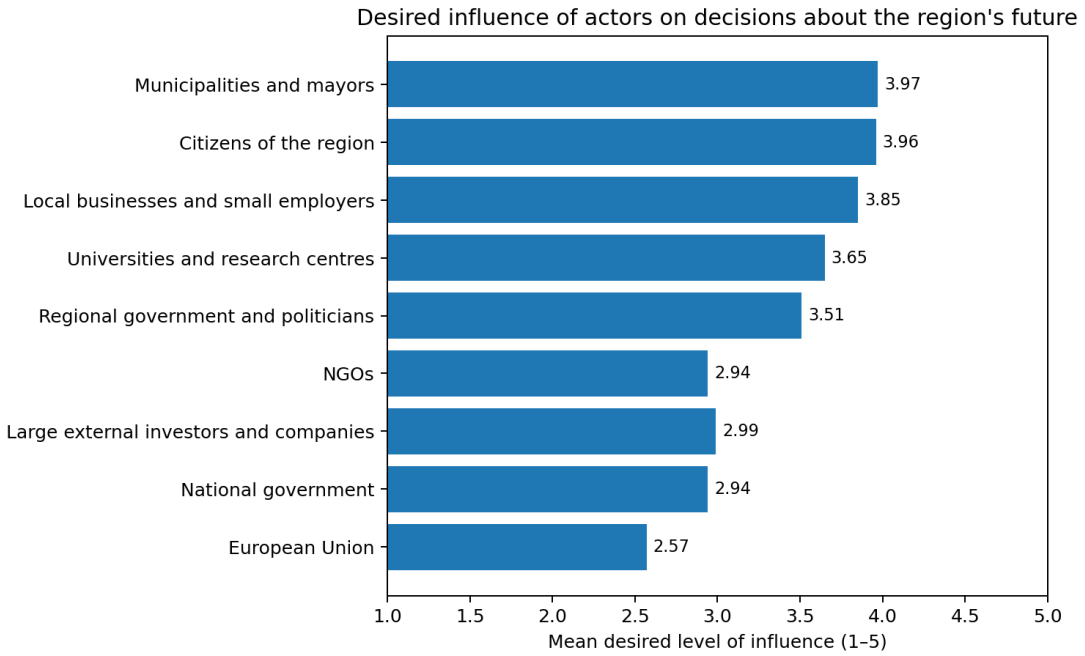


Figure 14. Desired influence of individual actors on decisions about the region's future on a 1–5 scale

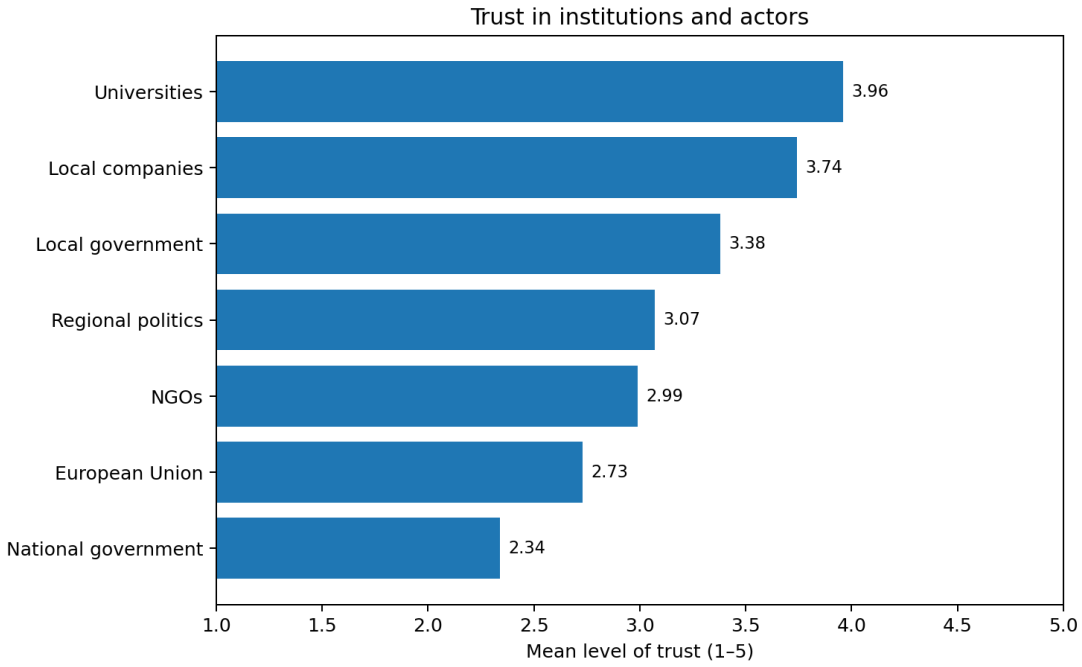


Figure 15. Mean level of trust in individual institutions and actors on a 1–5 scale

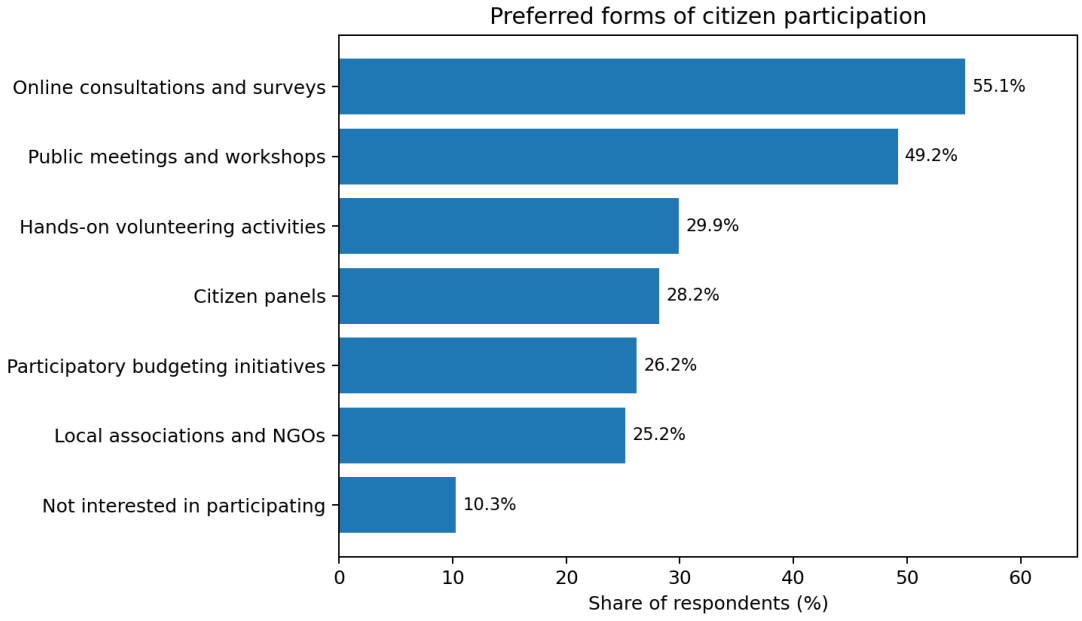


Figure 16. Preferred forms of citizen participation (multiple responses allowed; N = 301)

Interpretation note: For scale-based questions, only valid responses from 1 to 5 were used to calculate means, medians, and percentages; "Don't know" responses were excluded. For preferred forms of participation, respondents could select multiple options, and for barriers to participation, a maximum of three options; therefore, the percentages do not sum to 100%. Individual "Other" responses were not displayed separately in the aggregated overview because of their low frequency.

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2.10 Regional and mining identity

The transformation of former coal-mining regions is not only an economic and environmental process; it also affects how residents perceive their region, its history, and its future direction. The final closed-ended section of the questionnaire therefore examined attitudes towards mining and industrial heritage, the need to preserve local identity, and, at the same time, the modernisation of the economy and the region's public image. The results show that historical identity and a future-oriented approach are not perceived by respondents as mutually exclusive.

The strongest agreement among all statements in this section was recorded for the view that the history of mining and industry remains an important part of regional identity. The mean score reached 4.41 out of 5, with a median of 5. Of the 299 valid responses, 264 respondents (88.3%) agreed or strongly agreed with the statement. This represents an exceptionally strong consensus across the pooled sample and confirms that the mining and industrial past remains an important component of collective regional identity even where mining is being phased out or has already ended.

Closely related to this is the very strong support for preserving at least part of former mines and industrial sites as cultural heritage. This statement achieved a mean score of 4.31 and a median of 5; 251 of 299 respondents with valid answers (83.9%) agreed or strongly agreed. The results therefore indicate that the physical remains of mining and industry are not generally perceived only as unused or problematic brownfields, but also as carriers of historical memory and identity, selected elements of which should be preserved as part of future regeneration.

The importance of identity is also confirmed by attitudes towards the transformation process itself. A total of 205 of 296 respondents (69.3%) agreed or strongly agreed that economic transformation should not take place at the expense of local history and identity; the mean score was 3.88 and the median 4. This result supports an approach in which the regeneration of post-mining areas does not mean completely erasing their past, but rather sensitively integrating it into new functions and a renewed image of the region.

At the same time, respondents do not call for the preservation of the traditional economic structure. A total of 184 of 298 respondents (61.7%) agreed or strongly agreed that the region's future lies more in modern technologies, research, and education than in traditional industry; the mean score was 3.63 and the median 4. This finding is consistent with the results presented in Section 2.6, where modern technologies and innovation were clearly the most frequently preferred sector for future economic development. A strong attachment to mining and industrial history is therefore not inconsistent with support for economic modernisation.

Particularly interesting is the response to the statement that the region should focus entirely on new economic sectors rather than on its industrial past. The mean score was only 3.03, with a median of 3; 121 of 299 respondents (40.5%) agreed or strongly agreed. Combined with the very high support for preserving industrial heritage, this result suggests that respondents do not generally support a simple break with the past. The preferred direction appears to be modernisation that combines new economic activities with the historical continuity of the region.

A similarly mixed response was recorded for the proposition that the region needs to completely reinvent its public image and external reputation. The statement achieved a mean score of 3.04 and a median of 3, while 129 of 296 respondents (43.6%) agreed or strongly agreed. Residents therefore appear to recognise a need for some change in the image of the post-mining region, but not at the cost of completely rejecting its existing identity. The results point more towards reinterpretation and broadening of the regional image than its complete replacement.

Intergenerational continuity of regional identity is another important theme. A total of 217 of 292 respondents with valid answers (74.3%) agreed or strongly agreed that younger generations today feel a much weaker connection to the region than older generations; the mean score was 3.95 and the median 4. However, this is a subjective assessment by respondents rather than a direct measurement of differences between age groups. The result therefore primarily indicates a widespread concern that younger people's attachment to the region is weakening. In the next analytical stage, it will be appropriate to test whether actual attitudes towards the region and its identity differ statistically according to respondents' age.

Overall, the results reveal a relatively coherent view of the future identity of post-mining regions. Respondents clearly reject the implicit assumption that modernisation must mean forgetting the mining and industrial past. Instead, they support the preservation of selected elements of industrial heritage and respect for local history, while at the same time a majority see the economic future in modern technologies, research, and education. The transformation of regional identity should therefore not be understood as replacing an "old" identity with an entirely new one, but rather as gradually broadening it: mining and industrial heritage can remain part of the region's cultural identity while its economic base and external image continue to modernise.

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Table 13 ***Attitudes towards regional and mining identity and future direction***

Statement	Valid n	Mean	Median	Agree + strongly agree n	Agree + strongly agree %
Mining and industrial history is part of regional identity	299	4.41	5	264	88.3
Preservation of mining and industrial heritage	299	4.31	5	251	83.9
Younger generations have a weaker connection to the region	292	3.95	4	217	74.3
Transformation should not come at the expense of identity and history	296	3.88	4	205	69.3
Future in modern technologies, research and education	298	3.63	4	184	61.7
The region needs to completely reinvent its image and external reputation	296	3.04	3	129	43.6
The region should focus entirely on new sectors rather than its industrial past	299	3.03	3	121	40.5

Interpretation note: Only valid responses from 1 to 5 were used to calculate means, medians, and percentages; the "I do not know" option was excluded. The statement concerning a weaker connection among younger generations reflects respondents' subjective perceptions and does not in itself demonstrate an actual difference between age groups.

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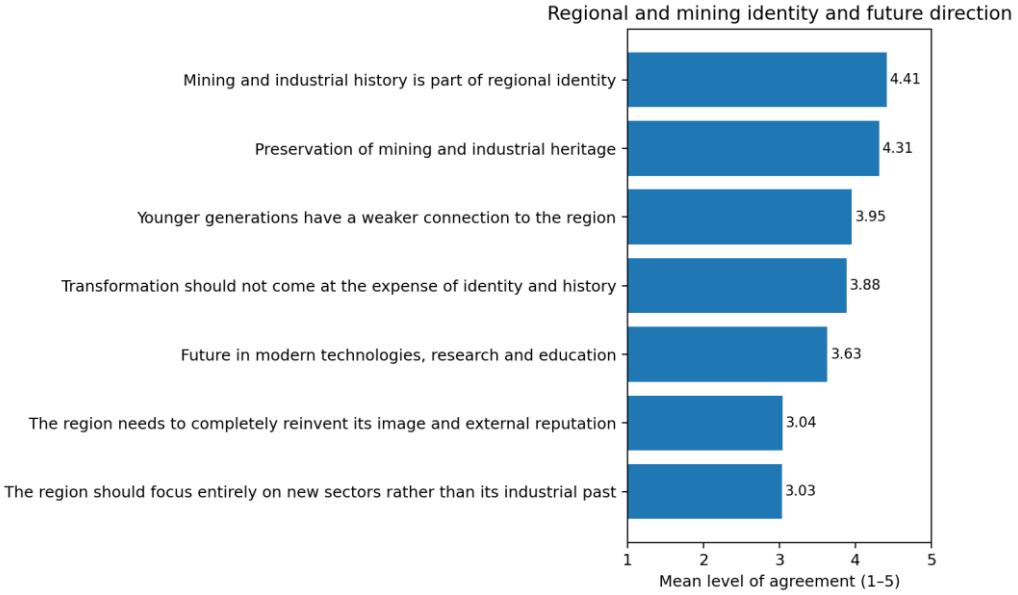


Figure 17. Mean level of agreement with statements on regional and mining identity and future direction on a 1–5 scale

2.11 Open-ended responses

The final part of the questionnaire allowed respondents to express their views without being restricted by predefined response categories. The open-ended questions focused on what respondents believed their region needed most, what they were most concerned about regarding its future, and how they imagined the ideal future of the region after transformation. The final item provided space for additional comments on the questionnaire. In the master dataset, the open-ended responses were preserved verbatim for subsequent thematic coding.

Respondents showed a relatively high willingness to answer the open-ended questions. A total of 212 of 301 respondents (70.4%) answered the question concerning what the region needs most, 210 respondents (69.8%) described their greatest concerns, and 193 respondents (64.1%) provided their vision of an ideal regional future. An additional comment or feedback was provided by 121 respondents (40.2%), although this item frequently contained only a brief statement indicating that the respondent had no further comments. The high response rate to the first three open-ended questions suggests that a substantial proportion of respondents wished to elaborate on their views beyond the standardised questionnaire items.

A preliminary thematic reading of responses to the question concerning what the region needs most confirms the importance of themes already identified in the closed-ended questions. Employment opportunities, new investment, economic stability, and decent wages appear repeatedly. Respondents also frequently mention the need for a clear long-term vision,

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a concrete transformation plan, effective leadership, and understandable information. Other responses emphasise the regeneration of post-mining areas, environmental improvement, affordable housing, retaining young people in the region, the development of education and modern technologies, and energy security. The open-ended responses therefore add important detail to the findings of the preceding sections: demands for economic transformation are often accompanied by expectations that the process will be practically achievable and clearly governed.

The concerns expressed spontaneously by respondents are also highly consistent with the results of the closed-ended questions. Recurrent themes include fear of unemployment, insufficient job opportunities, and economic decline following mine closures. Some respondents specifically highlight the situation of people with lower levels of education or workers directly dependent on the mining industry, for whom transition into new sectors may be difficult. Another important group of concerns relates to depopulation, the outmigration of young people, population ageing, and deteriorating social conditions. Responses also refer to distrust in political and administrative institutions, concerns about inconsistent transformation governance, corruption, and insufficient reuse of brownfields.

In contrast to the concerns, visions of an ideal future are predominantly constructive and combine several dimensions of development. Respondents describe a region with sufficient high-quality employment, a diversified economy, modern technologies, high-quality education, and stable living conditions. Economic development is frequently linked to a clean environment, green spaces, regenerated post-industrial sites, and high-quality transport and public infrastructure. Some responses explicitly describe a modern region that simultaneously preserves its mining and industrial heritage. This supports the interpretation presented in Section 2.10 that modernisation and the preservation of regional identity are not perceived by respondents as contradictory objectives.

At the same time, the open-ended responses reveal greater diversity of opinion than can be captured by standardised questions. In the field of energy, for example, responses include both demands for the development of new energy sources and a modern energy mix, as well as views supporting the continued use of coal. Similarly, respondents differ in their preferred pace and character of transformation and in their views on the future role of industry. These minority or more specific positions are analytically valuable precisely because they might remain hidden if only predefined response categories were used.

Responses to the final item included, alongside frequent statements that the respondent had no additional comments, assessments of the questionnaire itself and individual suggestions or critical remarks. These comments are primarily of methodological value and can be used when interpreting the results and preparing possible future rounds of the research. As this item was

not directly focused on attitudes towards regional transformation, these responses are not included in the main thematic interpretation.

Overall, the qualitative part confirms the main picture emerging from the quantitative analysis while adding more specific content. Respondents associate successful transformation primarily with employment opportunities and economic stability, but they also expect a clear vision, transparent governance, regeneration of post-mining areas, a high-quality environment, and conditions that enable young people to remain in the region. Their ideal vision of the future is generally not based on a single dominant sector, but rather on a combination of a modern and diversified economy, a high-quality environment, functioning public services, and the preservation of valuable elements of regional identity.

At this stage, the open-ended responses are interpreted qualitatively, and the thematic categories should be regarded as exploratory. For the subsequent detailed analysis, it will be appropriate to develop a common coding framework for the Czech, Polish, and German responses, code individual statements into shared thematic categories, and subsequently compare the frequency of themes between countries. Because a single response may contain several different themes, multiple thematic coding should be applied. This approach will make it possible to connect the qualitative content of the responses with quantitative cross-country comparison while preserving the semantic richness of the original statements.

Table 14 ***Response rates to the open-ended questions***

Open-ended question	n	% of total sample
What the region needs most	212	70.4
Greatest concerns	210	69.8
Ideal future of the region	193	64.1
Additional survey feedback	121	40.2

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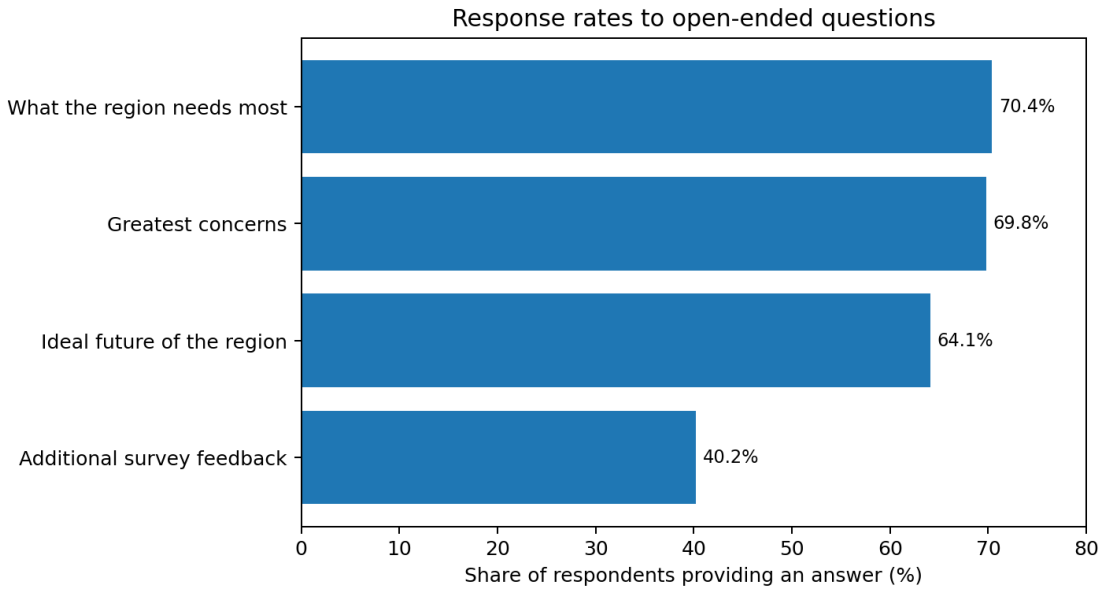


Figure 18. Share of respondents providing an answer to each open-ended question (N = 301)

Interpretation note: The thematic interpretation presented in this section is preliminary and is based on a qualitative reading of the open-ended responses. Frequencies of individual thematic categories are intentionally not reported at this stage, pending completion of a common multiple-coding framework for responses in all three languages. This avoids presenting apparently precise quantitative results based on linguistically uneven automated classification.

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2.12 Summary of key findings

The analysis of the pooled sample of 301 respondents from the Czech Republic, Poland, and Germany shows that residents of coal and post-mining regions do not perceive transformation merely as a matter of ending coal mining and replacing one industrial sector with another. Their attitudes connect economic security, quality of life, the use of public funds, territorial justice, opportunities to participate in decision-making, and the preservation of regional identity. Although individual attitudes vary, several relatively consistent themes emerge from the results and together provide a broader picture of residents' expectations regarding the future development of transforming regions.

Economic stability and the creation of high-quality jobs can be regarded as the most prominent priority. Concern about job losses and rising unemployment is among the two most frequently reported concerns associated with transformation, while insufficient employment opportunities are also an important factor that may encourage residents to leave the region. Respondents therefore do not assess successful transformation solely in terms of the volume of investment or the number of projects implemented, but primarily according to whether it creates stable and accessible employment opportunities for local residents. In terms of future economic development, they strongly support modern technologies, innovation, research, and education, indicating a preference for economic diversification towards sectors with higher added value.

A second major theme is the credibility of the transformation process itself. The most frequently reported concern was corruption and inefficient use of public funds (55.8%), while distrust in politics also emerged strongly in respondents' assessments of specific regional problems. Only a minority of respondents feel that decision-makers have a clear vision for the region's future or that public funds are being used effectively. Transformation is therefore evaluated by residents not only according to its stated objectives, but also according to the transparency, clarity, and credibility of the way decisions are made and public resources are allocated.

Closely related to this is a strong demand for greater involvement of local actors and residents. Respondents assign the greatest desired influence over the region's future to municipalities and mayors, citizens themselves, and local businesses, while more distant levels of decision-making are expected to have substantially less influence. At the same time, three-quarters of respondents (75.8%) consider residents' current influence over decisions about the region's future to be insufficient, whereas an almost equally high proportion (77.7%) declare a willingness to become personally involved. This gap is one of the most striking findings of the survey: the problem appears to be not simply a lack of public interest, but also a shortage of credible and accessible mechanisms through which citizens can feel that they genuinely influence decision-making.

The results also show that respondents perceive transformation as a territorially embedded process. There is very strong support for prioritising the reuse of brownfields and abandoned industrial sites (mean 4.18 out of 5; 79.7% agree or strongly agree), and a substantial proportion of respondents support directing projects towards municipalities most affected by mining. At the same time, these attitudes are not rigid: 70.5% accept projects outside former mining areas if they genuinely create jobs. A direct choice between territorial justice and economic efficiency showed a preference for the former, but not an unequivocal consensus. Respondents therefore expect historically most affected areas to be taken into account when transformation resources are allocated, while also accepting economically rational projects elsewhere if their benefits are accessible to local residents.

A similarly balanced position can be observed regarding the scale of supported projects. Only a small proportion of respondents expressed a clear preference for a few large strategic projects alone, whereas 79.4% preferred a combination of large strategic and smaller local projects. This suggests that residents do not regard these two approaches as mutually exclusive. Large projects may deliver structural change and substantial investment, while smaller projects may have a more immediate impact on quality of life and the needs of local communities. An effective transformation policy should therefore combine both types of intervention.

Another important finding concerns the relationship between modernisation and regional identity. Despite strong support for new technologies and economic diversification, the mining and industrial past remains highly important to respondents. A total of 88.3% agree that the history of mining and industry is an important part of regional identity, while 83.9% support preserving at least part of former mines and industrial sites as cultural heritage. At the same time, a majority of respondents see the future more in modern technologies, research, and education than in traditional industry. The results therefore do not support the assumption that transformation must involve a complete break with the past. A more appropriate model is modernisation combined with the reinterpretation and preservation of valuable elements of mining and industrial identity.

The quantitative findings are also supported by the open-ended responses. Respondents spontaneously emphasise employment opportunities, economic stability, a clear long-term vision, transparent governance, regeneration of post-mining areas, a high-quality environment, affordable housing, and the need to create conditions that enable young people to remain in the region. Visions of an ideal future are generally based on a combination of a modern and diversified economy, a high-quality environment and public services, and the preservation of regional identity. The qualitative part therefore largely confirms the main findings of the quantitative analysis while providing them with more specific content.

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Overall, the results suggest that residents do not regard the implementation of large investments or the physical redevelopment of post-mining areas alone as sufficient evidence of successful transformation. They expect a transformation that is economically viable, socially fair, territorially sensitive, and governed in a credible manner. From the residents' perspective, its success will depend primarily on whether it creates high-quality jobs, delivers visible benefits to local communities, prioritises the reuse and regeneration of areas affected by previous mining, enables citizens to participate meaningfully in decision-making, and succeeds in combining modernisation with regional history and identity.

These conclusions must, however, be interpreted with regard to the structure of the survey sample. Participation in the survey was voluntary, and a substantial part of the distribution took place through social media, professional and stakeholder networks, and other channels that were likely to reach people with higher levels of education and a more active interest in regional transformation. The sample therefore cannot be considered fully representative of the population of all regions included in the study. The findings presented in this section provide an overall view of the pooled international sample; in the subsequent stages of the analysis, it will therefore be important to examine the extent to which the identified attitudes are shared across all three countries and where national and regional differences emerge.

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Key findings at a glance

Area	Key finding
Economy and employment	High-quality jobs and economic stability are fundamental expectations associated with transformation; future development is linked particularly to modern technologies, innovation, research, and education.
Transformation governance	Distrust in political decision-making, corruption, and the effectiveness of public spending is a major issue; transparency and a clear vision are key conditions for building trust.
Participation	75.8% consider residents' current influence insufficient, while 77.7% declare a willingness to become personally involved.
Territorial justice	A strong preference for brownfields and the most affected areas is combined with pragmatic acceptance of projects elsewhere if they create jobs and tangible benefits.
Scale of projects	79.4% prefer a combination of large strategic and smaller local projects.
Identity	88.3% consider mining and industrial history an important part of regional identity; modernisation therefore does not need to imply a break with the past.

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3. Country-level results

Following the detailed analysis of the complete international sample, this chapter focuses on the results for the individual countries. The aim is not to repeat the full descriptive analysis presented in Chapter 2, but primarily to identify those attitudes, priorities and concerns in which the national subsamples differ from the overall sample. The results for the Czech Republic, Poland and Germany are therefore interpreted in relation to the aggregated values for all 301 respondents. Particular attention is paid to differences that are substantively pronounced and may be related to different trajectories of coal phase-out, regional experience with transformation, or the characteristics of the areas included in the study. Given the non-random and self-selected nature of the sample, these differences are not interpreted as representative estimates of national populations, but as characteristics of the respondents included in the respective national subsamples.

3.1 Czech Republic

The Czech subsample consists of 81 respondents, representing 26.9% of the complete sample. Of these, 63 reported a connection to the Ostrava–Karviná region and 18 to the Most region, meaning that the Czech part of the survey covers both a region affected by deep hard-coal mining and an area long influenced by surface lignite mining. Women slightly predominate in the Czech subsample (53.1%) over men (46.9%), and 61.7% of respondents have a university education. Although the proportion of university-educated respondents is therefore also high, it is somewhat lower than in the complete sample (67.1%). Czech respondents have a very strong connection to the regions studied: 79.0% have lived there since birth and a further 18.5% for more than ten years. A current or former household connection to mining was reported by 64.2% of respondents, which is practically identical to the complete sample.

For many of the principal themes, the Czech results are consistent with the overall picture. Employment, economic stability, economic modernisation, brownfield regeneration and the requirement for credible transformation governance also dominate here. Some attitudes, however, are more pronounced in the Czech subsample. Creating new and high-quality jobs was selected as a transformation priority by 75.3% of Czech respondents, compared with 68.1% in the complete sample. Attracting new investors (49.4% compared with 37.9%) and housing availability and affordability (37.0% compared with 27.9%) are also more strongly emphasised. By contrast, improving public transport and regional connectivity was mentioned considerably less often by Czech respondents (4.9% compared with 16.9%). This is also consistent with the assessment of specific regional problems, where public transport was perceived by Czech respondents as a less serious issue than in the pooled international sample.

In terms of concerns associated with transformation, the Czech subsample is characterised particularly by a stronger emphasis on the way public funds are managed. Corruption and ineffective use of public funds were identified by 66.7% of Czech respondents,

compared with 55.8% in the complete sample. By contrast, concern about job losses and rising unemployment, which was almost as important as corruption in the complete sample, was reported less frequently in the Czech Republic (44.4% compared with 55.1%). Concern that transformation will be too expensive for taxpayers is also markedly lower (8.6% compared with 30.6%). The Czech data therefore suggest that critical attitudes focus less on the overall volume of public expenditure and more on whether funds will be used effectively, transparently and for the benefit of the areas genuinely affected by mining.

The territorial dimension of transformation is also somewhat more pronounced in the Czech subsample than in the complete sample. Prioritising the reuse of brownfields reaches a mean score of 4.41 out of 5, compared with 4.18 in the complete sample, and 86.4% of Czech respondents agree or strongly agree with this principle. Support is also stronger for directing projects towards municipalities most affected by mining (77.8% compared with 68.8%) and for protecting high-quality agricultural land. At the same time, a pragmatic position remains evident: 74.1% of Czech respondents agree that projects may also be implemented outside former mining areas if they create jobs. In the direct choice concerning the location of strategic projects, 54.3% of Czech respondents preferred the most affected areas and brownfields, which is very close to the overall result of 52.8%.

A certain difference appears in the preferred scale of projects. Although a combination of large strategic and smaller local projects is also clearly preferred by a majority in the Czech Republic, its share is lower than in the complete sample (69.1% compared with 79.4%). Conversely, 24.7% of Czech respondents prefer smaller local projects, compared with 15.6% in the complete sample. The Czech results therefore suggest a somewhat stronger demand for at least part of the transformation funding to have concrete and immediately visible impacts on local communities.

In the area of institutions and participation, the Czech picture is more differentiated. Trust in universities and local companies remains very high and broadly similar to the complete sample. A Czech-specific feature is higher trust in local government: its mean score is 3.69 compared with 3.38 in the complete sample, and 78.8% of Czech respondents rather or definitely trust local government, compared with 67.3% overall. The desired influence of regional government and regional politicians is also stronger in the Czech subsample (mean 3.90 compared with 3.51). On the other hand, trust in NGOs is lower. The assessment of the national government remains low and is even slightly lower than in the complete sample.

As in the complete sample, the prevailing view is that residents do not have sufficient influence over the future of their region. In the Czech Republic, this opinion is held by 77.8% of respondents, compared with 75.8% overall. Declared willingness to become personally involved is, however, lower: 69.1% of Czech respondents are definitely or rather willing to participate, compared with 77.7% in the complete sample. Czech values are also generally

lower for individual forms of participation; online consultations and surveys were selected by 38.3% compared with 55.1%, and public meetings and workshops by 25.9% compared with 49.2%. By contrast, hands-on volunteering activities are slightly more common in the Czech subsample. It is also noteworthy that 21.0% of Czech respondents explicitly stated that they were not interested in participating, compared with 10.3% in the complete sample. The Czech results thus confirm a demand for greater citizen influence while simultaneously indicating a certain reservation towards personal involvement in formal participatory processes.

The most distinctive Czech feature appears in questions concerning regional identity and the future image of the region. The importance of mining and industrial history remains exceptionally strong: 91.3% of Czech respondents agree that it is an important part of regional identity, slightly more than in the complete sample (88.3%). At the same time, Czech respondents show substantially stronger support for modernisation and for changing the region's image. The statement that the region needs to fundamentally reinvent its image and external reputation is supported or strongly supported by 72.5% of Czech respondents, compared with 43.6% overall; the mean score is 3.81 compared with 3.04. Similarly, the statement that the region's future lies in modern technologies, research and education achieves a higher Czech mean of 4.03 compared with 3.63 and is supported by 77.5% of respondents compared with 61.7% overall.

At the same time, agreement with the statement that the region should focus on new economic sectors rather than on its industrial past is considerably higher in the Czech Republic (66.3% compared with 40.5% in the complete sample). This result should not, however, be interpreted as a rejection of mining heritage, because attachment to mining identity remains very strong and 77.5% of Czech respondents support preserving former mines and industrial sites as cultural heritage. The Czech subsample therefore displays a clear combination of strong historical identity and an above-average orientation towards change, innovation and a new external image of the region. Compared with the complete sample, Czech respondents appear to perceive the mining past primarily as a cultural foundation on which a new economic and social identity can be built, rather than as a model for the region's future economic direction.

Overall, the Czech results do not differ from the international sample in the fundamental understanding of the objectives of a just transition, but they do differ in the emphasis placed on some of its components. There is stronger demand for high-quality jobs, new investment, brownfield reuse, protection of the most affected areas and transparent use of public funds. At the same time, there is a more pronounced orientation towards modernisation, new economic sectors and a change in the region's external image, without weakening the strong connection to mining and industrial history. In the area of participation, by contrast, a greater gap emerges between the demand for citizen influence and willingness to use specific

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participatory mechanisms. These characteristics will subsequently be assessed in relation to the Polish and German subsamples in the cross-country comparison.

Table 15 ***Selected differences between the Czech subsample and the complete sample***

Indicator	Czech Republic	Overall	Difference/interpretation
New and high-quality jobs as a priority	75.3%	68.1%	greater emphasis in CZ
Corruption and ineffective use of funds as a concern	66.7%	55.8%	substantially higher in CZ
Job losses and unemployment as a concern	44.4%	55.1%	lower in CZ
Priority given to brownfields	4.41 / 5	4.18 / 5	stronger support in CZ
Combination of strategic and local projects	69.1%	79.4%	CZ more often favours smaller local projects
Trust in local government	3.69 / 5	3.38 / 5	higher in CZ
Willingness to participate personally	69.1%	77.7%	lower in CZ
Need to reinvent the region's image and reputation	3.81 / 5	3.04 / 5	one of the largest differences
Future in technology, research and education	4.03 / 5	3.63 / 5	stronger modernisation orientation
Mining and industrial history as part of identity	91.3%	88.3%	very strong in both samples

Interpretation note: The differences presented above are descriptive and refer to the respondents included in the study. Given the non-random sampling procedure and the size of the national subsamples, they are not interpreted at this stage as statistically generalisable differences between the populations of the individual countries. The Czech subsample also includes two distinct coal regions - the Ostrava–Karviná region and the Most region; possible within-country differences between them can be analysed separately.

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3.2 Poland

The Polish subsample consists of 124 respondents, representing 41.2% of the complete sample and therefore the largest national group in the survey. Most respondents reported residence in the Silesian Voivodeship (115 respondents; 92.7%), while individual responses from other voivodeships account for only a small proportion of the sample. The Polish subsample is also very strongly rooted in the region: 81.5% of respondents have lived there since birth and a further 13.7% for more than ten years. A current household connection to mining was reported by 47.6% of respondents and a past connection by another 35.5%, meaning that 83.1% of Polish respondents have a current or former direct family connection to the mining sector. This is substantially higher than in the complete sample and is important when interpreting some of the Polish-specific findings. Men slightly predominate in the subsample (55.6%), and 66.9% of respondents have a university education, which is practically identical to the complete sample.

In terms of the main transformation priorities, the Polish results are similar to the complete sample in several respects. New and high-quality jobs remain the most frequently selected priority (68.5% compared with 68.1% overall). However, Polish respondents place considerably greater emphasis on attracting new investors (50.0% compared with 37.9%) and supporting local small and medium-sized enterprises (44.4% compared with 36.9%). By contrast, housing availability and affordability are mentioned substantially less often in the Polish subsample (11.3% compared with 27.9%), and improving public transport and regional connectivity is also given less importance (8.1% compared with 16.9%). Compared with the complete sample, the Polish view of transformation is therefore somewhat more strongly oriented towards employment, investment and the functioning of the local economy than towards some broader quality-of-life issues.

This economic emphasis is also reflected in preferences concerning future sectors. Modern technologies and innovation are even more frequently preferred in Poland than in the complete sample (71.0% compared with 64.1%). Small and medium-sized enterprises (41.9% compared with 37.5%) and the manufacturing industry (35.5% compared with 28.9%) also receive above-average support. By contrast, research, science and university development are selected less frequently (25.0% compared with 41.5%), while support for renewable energy and green technologies is also somewhat lower (34.7% compared with 40.9%). The results therefore suggest that Polish respondents associate regional economic modernisation more with technological innovation within the productive economy and entrepreneurship than with a pronounced shift towards the university and research sector.

The most distinctive Polish feature appears in concerns associated with transformation. Job losses and rising unemployment were identified by 68.5% of Polish respondents compared with 55.1% in the complete sample, making this clearly the most frequently reported concern

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in Poland. Concern that transformation will be too expensive for taxpayers is also substantially higher (41.9% compared with 30.6%). Corruption and ineffective use of public funds remain highly important (53.2%), although their share is similar to the overall result. By contrast, only 4.0% of Polish respondents are concerned that nothing will really change, compared with 15.3% in the complete sample. The Polish subsample therefore appears less sceptical about the possibility of change itself, but considerably more sensitive to its economic and employment-related costs.

The stronger emphasis on the economic and social consequences of transformation may be partly related to the exceptionally high proportion of respondents with a current or former connection to mining. Unlike regions where mining has already largely become a historical experience, the coal phase-out in Polish Silesia remains directly linked to the future of jobs, local businesses and families dependent on mining. The data themselves do not allow this causal relationship to be demonstrated; nevertheless, the combination of a strong connection to the mining sector and above-average concern about unemployment is important for the subsequent cross-country comparison.

In terms of territorial justice, the Polish subsample is in some respects even more pronounced than the complete sample. A total of 81.3% of Polish respondents agree or strongly agree that projects should primarily be directed towards municipalities most affected by mining, compared with 68.8% overall; the mean score reaches 4.10 compared with 3.84. Prioritising brownfield reuse is also strongly supported (77.0%), although at approximately the same level as in the complete sample. At the same time, 73.2% of respondents accept projects outside former mining areas if they create jobs. In the direct choice between economic efficiency and location in the most affected areas, 58.9% of Polish respondents preferred the option prioritising affected areas and brownfields. The Polish result therefore confirms a strong demand for territorial justice without completely rejecting a pragmatic approach to investment location.

Preferences regarding project scale, by contrast, are very close to the overall result. A combination of large strategic and smaller local projects is preferred by 78.2% of Polish respondents compared with 79.4% overall. Only 6.5% prefer a few large strategic projects and 15.3% favour smaller local projects. The Polish subsample therefore does not support a one-sided concentration of transformation funding in a few major investments but, like the complete sample, favours a combined model.

In the area of decision-making and participation, Polish respondents, like the complete sample, expect municipalities, citizens and local businesses to have a strong influence. The mean desired influence of municipalities and mayors is 4.01 and that of citizens 3.94, practically identical to the complete sample. However, the desired influence of regional government, the national government, the European Union and universities is somewhat lower.

Trust in institutions is also generally slightly lower in Poland: local government reaches a mean score of 3.17 compared with 3.38 overall, universities 3.70 compared with 3.96, and the national government only 2.16 compared with 2.34. Nevertheless, universities and local economic actors remain among the relatively most trusted institutions.

The perception of insufficient citizen influence is even stronger in Poland than in the complete sample. In total, 81.5% of respondents stated that residents rather or definitely do not have sufficient influence over decisions concerning the region's future, compared with 75.8% overall. Unlike the Czech subsample, however, willingness to become personally involved is very high: 83.9% of Polish respondents are definitely or rather willing to participate, exceeding the overall figure of 77.7%. Online consultations and surveys are preferred by 66.9% of respondents and public meetings and workshops by 54.8%, both higher than in the complete sample. Participation in initiatives allowing citizens to help decide how part of the public budget is spent is also mentioned more frequently in Poland. The Polish subsample therefore combines strong dissatisfaction with the current level of citizen influence with a relatively high declared willingness to make active use of participatory mechanisms.

Regional and mining identity is exceptionally strong in the Polish subsample. A total of 91.9% of respondents agree or strongly agree that the history of mining and industry is an important part of regional identity, compared with 88.3% overall; the mean score reaches 4.52. Support for preserving mining and industrial heritage is also very high (84.7%). Unlike the Czech subsample, however, Polish respondents show a weaker orientation towards completely reinventing the regional image and distancing the region from its industrial past. The statement that the region should focus on new sectors rather than on its industrial past reaches a mean score of only 2.63 compared with 3.03 overall, with 34.7% agreeing. The perceived need to fundamentally reinvent the region's image and external reputation is also rated lower (mean 2.66 compared with 3.04).

Similarly, agreement with the statement that the region's future lies more in modern technologies, research and education than in traditional industry is lower in Poland (51.6% compared with 61.7% overall; mean 3.31 compared with 3.63). This result is not inconsistent with the high support for modern technologies and innovation as a specific economic sector. Rather, it suggests that Polish respondents do not necessarily perceive modernisation as a replacement for traditional industrial identity, but more as its technological transformation and diversification. Combined with stronger support for manufacturing and small and medium-sized enterprises, the Polish subsample therefore shows greater continuity between the industrial past and the envisioned future economy.

Overall, the Polish results differ from the international sample primarily in the stronger connection of respondents to the mining sector and the more pronounced economic dimension of transformation. Concerns about job losses and the costs of transformation are

above average, as are the emphasis on attracting new investors, supporting small and medium-sized enterprises and manufacturing, and directing resources towards the municipalities most affected by mining. At the same time, mining and industrial identity is very strong, and there is less willingness to interpret modernisation as a complete departure from the industrial past. On the other hand, Polish respondents show a high willingness to participate in civic processes despite assessing the current influence of residents as insufficient. Compared with the complete sample, the Polish case therefore most clearly emphasises the need to link economic modernisation with employment preservation, industrial continuity and direct benefits of transformation for traditional coal communities.

Table 16 ***Selected differences between the Polish subsample and the complete sample***

Indicator	Poland	Overall	Difference/interpretation
Current or former household connection to mining	83.1%	~64%	substantially higher in PL
New investors as a transformation priority	50.0%	37.9%	greater emphasis in PL
Research, science and universities as a future sector	25.0%	41.5%	lower in PL
Job losses and unemployment as a concern	68.5%	55.1%	substantially higher in PL
Cost of transformation to taxpayers as a concern	41.9%	30.6%	higher in PL
Priority for the most affected municipalities	4.10 / 5	3.84 / 5	stronger territorial emphasis
Residents do not have sufficient influence	81.5%	75.8%	stronger perception of insufficient influence
Willingness to participate personally	83.9%	77.7%	higher in PL
Mining and industrial history as part of identity	91.9%	88.3%	exceptionally strong in PL
Future in technology, research and education	3.31 / 5	3.63 / 5	less support for replacing traditional industry

Interpretation note: The differences presented above are descriptive and refer to the respondents included in the study. The Polish subsample is strongly concentrated in the Silesian Voivodeship and shows an exceptionally high current or former household connection to the mining sector. These characteristics should be taken into account when interpreting differences from the pooled international sample; without subsequent statistical testing, the differences cannot be generalised to the population of Poland as a whole.

3.3 Germany

The German subsample consists of 96 respondents, representing 31.9% of the complete sample. The vast majority reported a connection to the Ruhr Region (87 respondents; 90.6%), while only three respondents were from the Rhineland and six from other areas. The German subsample should therefore be interpreted primarily as reflecting the attitudes of respondents from the Ruhr Region rather than as providing balanced coverage of German coal regions. Respondents also have a long-standing connection to the region: 61.5% have lived there since birth and a further 17.7% for more than ten years. A current or former household connection to mining was reported by 43.8% of respondents, considerably less than in the Polish subsample and also below the level of the complete sample. At the same time, the German subsample has the highest proportion of university-educated respondents, at 71.9%, and women clearly predominate (63.5%).

In terms of the main transformation priorities, Germany differs from the complete sample primarily through a stronger emphasis on broader quality-of-life conditions and infrastructure. Creating new and high-quality jobs remains the most frequently selected priority, although its share is somewhat lower than overall (61.5% compared with 68.1%). By contrast, housing availability and affordability are mentioned by 41.7% of German respondents compared with 27.9% in the complete sample, while improving public transport and regional connectivity is selected by 38.5% compared with only 16.9% overall. Greater emphasis is also placed on expanding education and retraining programmes (32.3% compared with 24.9%). An exceptionally pronounced difference appears in attracting new investors: this priority was selected by only 12.5% of German respondents compared with 37.9% overall. The German view of transformation is therefore less centred on attracting external capital and more on the quality of the regional environment, access to services, infrastructure and human-capital development.

This difference is even more apparent in perceptions of future economic development. Research, science and university development were selected by 62.5% of German respondents compared with 41.5% in the complete sample, representing one of the largest differences between the German and pooled results. Renewable energy and green technologies also receive stronger support (49.0% compared with 40.9%). Modern technologies and innovation remain strongly supported (60.4%), approximately at the level of the overall result. Small and medium-sized enterprises, by contrast, are selected somewhat less frequently. Among the three national subsamples, the German group therefore places the strongest emphasis on the knowledge-based, research-oriented and environmentally focused components of the future economy.

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Concerns associated with transformation are generally more dispersed in Germany and less concentrated on employment than in Poland. Corruption and ineffective use of public funds were identified by 50.0% of respondents and job losses and rising unemployment by 46.9%, both lower than in the complete sample. By contrast, concern that large companies will benefit while local people are left behind is somewhat more frequent (37.5% compared with 32.6%), and particularly notable is the concern that nothing will really change (27.1% compared with 15.3%). German respondents therefore show less immediate fear of job losses, but greater scepticism about whether the transformation process will actually produce visible and fairly distributed benefits.

A distinctive German pattern emerges in relation to territorial justice. Prioritising brownfield reuse is strongly supported here as well: 77.4% of respondents agree or strongly agree, and the mean score is 4.01 out of 5. Unlike the Czech and especially the Polish subsamples, however, there is substantially weaker support for prioritising projects in municipalities most affected by mining. Only 44.0% of German respondents agree with this principle compared with 68.8% in the complete sample, and the mean score is 3.34 compared with 3.84. Support for projects outside former mining areas if they create jobs is also somewhat lower than overall (63.8% compared with 70.5%).

In the direct choice between economic efficiency and locating strategic projects in the most affected areas, the German subsample is almost evenly divided. Excluding “I do not know” responses, 51.2% favoured the approach prioritising economic benefits, while 48.8% preferred the approach prioritising the most affected areas and brownfields. In the complete sample, by contrast, the latter option has a slight advantage. The German data therefore support brownfield reuse but connect just transition less unequivocally with a requirement to geographically concentrate new projects specifically in the historically most affected municipalities. This difference may be related to the spatial structure of the Ruhr Region and its longer experience with post-industrial transformation, although the survey data themselves do not allow this explanation to be confirmed.

In terms of project scale, the German result is exceptionally clear. A combination of large strategic and smaller local projects is preferred by 89.6% of respondents compared with 79.4% in the complete sample. Only 2.1% prefer a few large strategic projects and 8.3% favour smaller local projects. Of the three national subsamples, German respondents therefore show the strongest support for a combined model in which structural investments are complemented by local interventions.

In the institutional dimension, Germany differs from the complete sample particularly through very high trust in universities. Their mean rating reaches 4.24 compared with 3.96 overall, and 93.8% of German respondents rather or definitely trust universities. Trust in local government is practically identical to the overall result, while the national government, although still rated

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relatively low, is assessed somewhat more positively than in the complete sample (mean 2.68 compared with 2.34). In terms of the desired distribution of influence over the region's future, citizens reach a mean of 4.06 in Germany, slightly higher than overall, and universities 3.87 compared with 3.65. The desired influence of municipalities and mayors, by contrast, is somewhat lower than in the complete sample. These findings again confirm the relatively strong role assigned to knowledge institutions in the German view of transformation.

German respondents also predominantly consider the current influence of residents on decision-making to be insufficient. A total of 66.7% assesses it rather or definitely negatively, although this is lower than the overall figure of 75.8%. Willingness to become personally involved is high: 77.1% of respondents are rather or definitely willing to participate, practically identical to the complete sample. The German specificity lies more in the preferred forms of participation. Public meetings and workshops were selected by 61.5% of respondents compared with 49.2% overall, citizen panels by 39.6% compared with 28.2%, and hands-on volunteering activities also by 39.6% compared with 29.9%. Only 4.2% stated that they were not interested in participating. The German subsample therefore shows relatively strong openness, particularly towards deliberative and direct forms of citizen involvement.

Mining and industrial identity remains strong in Germany, although its intensity is somewhat lower than in the Czech and Polish subsamples. A total of 81.1% of respondents agree or strongly agree that the history of mining and industry is an important part of regional identity, compared with 88.3% overall. At the same time, support for preserving former mines and industrial sites as cultural heritage is even slightly higher than in the complete sample (88.4% compared with 83.9%). German respondents therefore strongly support preserving the physical traces of the industrial past, even though the subjective connection between mining history and present-day regional identity is somewhat weaker.

The relationship between the past and future economic direction is also noteworthy. Support for the statement that the region's future lies more in modern technologies, research and education than in traditional industry is practically identical to the overall result (61.7%), while the mean score is slightly higher (3.72 compared with 3.63). At the same time, only 26.3% of respondents agree that the region should focus on new sectors rather than on its industrial past, compared with 40.5% overall. Agreement with the need to fundamentally reinvent the region's image and external reputation is even lower (26.1% compared with 43.6%). Similar to the Polish case, the German results therefore do not support a model of modernisation based on rejecting the industrial past; rather, they suggest that a knowledge- and technology-based economy can be combined with the active preservation of post-industrial heritage.

Overall, the German subsample differs from the international sample primarily through a stronger orientation towards research, universities, education, public transport, housing and green technologies, combined with a markedly lower emphasis on attracting new investors.

Concerns are less concentrated on immediate job losses and more on whether transformation will actually lead to visible change and whether local residents will benefit from it. In terms of territorial justice, there is less emphasis on concentrating projects in the most affected municipalities, although support for brownfield reuse remains high. The preference for combining strategic and local projects, trust in universities, and willingness to participate in public meetings, citizen panels and other participatory mechanisms are particularly strong. Compared with the complete sample, the German case therefore places the greatest emphasis on knowledge-oriented transformation, the quality of the regional environment, and the institutional and civic capacity to actively co-shape the transformation process.

Table 17 ***Selected differences between the German subsample and the complete sample***

Indicator	Germany	Overall	Difference/interpretation
Research, science and universities as a future sector	62.5%	41.5%	substantially higher in DE
Attracting new investors as a priority	12.5%	37.9%	substantially lower in DE
Public transport and regional connectivity as a priority	38.5%	16.9%	substantially higher in DE
Concern that nothing will really change	27.1%	15.3%	greater scepticism in DE
Priority for the most affected municipalities	3.34 / 5	3.84 / 5	weaker territorial concentration
Combination of strategic and local projects	89.6%	79.4%	very strong preference in DE
Trust in universities	4.24 / 5	3.96 / 5	higher in DE
Public meetings and workshops as a form of participation	61.5%	49.2%	higher in DE
Preservation of mining and industrial heritage	88.4%	83.9%	very strong support
Need to fundamentally reinvent the region's image and reputation	26.1%	43.6%	substantially lower in DE

Interpretation note: The differences presented above are descriptive and refer to the respondents included in the study. The German subsample is strongly concentrated in the Ruhr Region (90.6% of respondents), while the Rhineland is represented by only three respondents. The results therefore cannot be interpreted as a representative picture of all German coal regions. As in the other national subsamples, the observed differences cannot be generalised to the German population without subsequent statistical testing.

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4. Cross-country comparison – CZ × PL × DE

The previous chapter identified the specific characteristics of the individual national subsamples in relation to the pooled dataset. This chapter compares the Czech Republic, Poland and Germany directly and focuses on the most important common patterns and differences. The aim is not to reproduce the complete results of individual survey questions, but to identify broader patterns that may help explain differences in how transformation is perceived across coal and post-mining regions. The comparison is descriptive. Given the non-random sampling procedure, different sizes of the national subsamples and their regional composition, the observed differences are not interpreted as representative characteristics of the national populations as a whole.

Despite the differences between countries, a relatively strong common core of attitudes can be identified. In all three subsamples, the main expectations include the creation of high-quality jobs, economic stability, brownfield reuse and the requirement that transformation should deliver tangible benefits to local residents. Mining and industrial identity is also strong in all three countries, together with broad support for preserving at least part of the industrial heritage. Respondents therefore differ less in whether transformation and economic modernisation are needed than in how modernisation should proceed, who should shape it and how strongly it should remain connected to the existing industrial structure.

The clearest contrast appears between the Polish and German subsamples in their economic understanding of transformation. In Poland, transformation is most strongly associated with maintaining employment and industrial continuity. Concern about job losses reaches 68.5%, compared with 44.4% in the Czech Republic and 46.9% in Germany. Polish respondents also place greater emphasis on attracting new investors, supporting small and medium-sized enterprises and maintaining a role for manufacturing. This pattern is consistent with the fact that the Polish subsample has the strongest current or former household connection to mining among the three countries. Transformation in Poland is therefore perceived primarily through the economic and social security of traditional coal communities.

The German subsample, by contrast, places the strongest emphasis on the knowledge economy and broader regional quality-of-life conditions. Research, science and university development were identified as a promising future economic direction by 62.5% of German respondents, compared with 25.0% in Poland and 42.0% in the Czech Republic. Germany also differs markedly in the low importance assigned to attracting new investors, while public transport, housing, education, retraining and green technologies receive greater emphasis. Transformation is therefore less strongly framed as replacing declining jobs through external investment and more as a long-term change in regional functions and the strengthening of knowledge-based and institutional capacity.

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The Czech subsample occupies an intermediate position between Poland and Germany on several economic issues but also displays distinctive characteristics of its own. Compared with the other two countries, there is a particularly strong orientation towards changing the region's image, developing new economic sectors and modernisation. At the same time, mining and industrial identity remains very strong. The Czech case therefore combines a desire to preserve the mining past as part of cultural identity with a stronger expectation that the region's future economic profile should differ substantially from its traditional mining and heavy-industrial profile. The Polish approach shows greater continuity with the industrial economy, whereas the German subsample places greater emphasis on knowledge-based and post-industrial development.

Important differences also emerge in concerns associated with transformation. In the Czech Republic, the most pronounced concern is corruption and ineffective use of public funds (66.7%), while in Poland fear of job losses and rising unemployment dominates (68.5%). German respondents are less negative in both of these areas but more frequently express concern that transformation will fail to produce substantial change or that its benefits will accrue mainly to large companies rather than local residents. The differences therefore concern not only the intensity of concern but also its character: the Czech subsample emphasises the quality of public governance, the Polish subsample economic security, and the German subsample the actual impact and distribution of transformation benefits.

Territorial justice represents another area of cross-country difference. All three subsamples show strong support for brownfield reuse, making the regeneration of previously used industrial and mining sites a common principle. A clearer difference emerges in the requirement that new projects should primarily be located in municipalities most affected by mining. This preference is strongest in Poland, with a mean score of 4.10 out of 5, followed by the Czech Republic at 4.01, and is considerably weaker in Germany at 3.34. Polish and Czech respondents therefore associate just transition more strongly with directing investment back towards historically affected areas, while the German subsample places greater emphasis on the suitability of the project and brownfield reuse than on the historical or administrative status of a particular municipality.

By contrast, there is very strong agreement in rejecting a simple choice between a few large strategic projects and a larger number of smaller local interventions. A combination of both is preferred in all three countries, most strongly in Germany (89.6%), followed by Poland (78.2%) and the Czech Republic (69.1%). The Czech subsample differs through a higher proportion of respondents favouring smaller local projects. From the perspective of transformation policy design, this is an important common finding: respondents generally do not perceive strategic and local projects as competing approaches, but as complementary instruments.

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The relationship with institutions also differs across countries. The Czech subsample shows relatively strong trust in local government, whereas Germany is characterised by exceptionally high trust in universities and knowledge institutions. Institutional trust is generally somewhat lower in Poland. Across all three countries, however, the national government receives relatively low ratings, while respondents expect citizens, municipalities and local economic actors to have substantial influence over the region's future. A common feature is therefore a preference for decision-making closer to the region and its residents, although the specific institutions trusted by respondents differ between countries.

Participation reveals another interesting pattern. In all three countries, the prevailing view is that residents do not have sufficient influence over decisions concerning the region's future, with this perception strongest in Poland and least pronounced in Germany. Polish respondents also show the highest declared willingness to become personally involved (83.9%), German respondents are close to the pooled result (77.1%), and the Czech subsample is lower (69.1%). Preferred participation mechanisms also differ. Poland shows strong support for online consultations and public meetings, Germany above-average support for public workshops, citizen panels and practical volunteering, while Czech respondents show lower willingness to use formal participation mechanisms. The shared demand for greater citizen influence is therefore translated into different levels of readiness and different preferred forms of participation across the three countries.

Regional identity is among the strongest common themes of the entire survey, but its relationship with the future differs across countries. More than 90% of respondents in Poland and the Czech Republic regard mining and industrial history as an important part of regional identity; the proportion is lower in Germany but remains very high at 81.1%. Support for preserving physical industrial heritage is high in all three countries and reaches 88.4% in Germany. The main difference therefore lies not in whether the past should be preserved, but in the role it should play in the future economic and symbolic image of the region.

The most pronounced difference in this respect concerns the perceived need to change the current image of the region. While 72.5% of Czech respondents agree that the region needs to fundamentally reinvent its image and external reputation, this view is shared by 37.9% of Polish respondents and only 26.1% of German respondents. The Czech subsample therefore shows a substantially stronger desire to change how the region is perceived. This should not be interpreted as a rejection of mining and industrial history, since 91.3% of Czech respondents simultaneously regard this history as an important part of regional identity. Rather, the findings suggest that Czech respondents wish to preserve mining and industrial heritage as part of regional identity while, more strongly than respondents in Poland and Germany, supporting the creation of a new regional image oriented towards future development.

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The cross-country comparison therefore does not reveal three fundamentally different concepts of just transition, but rather three different emphases within a broadly shared transformation framework. The Czech subsample can be characterised by a strong emphasis on modernisation, a new regional image, brownfield reuse and transparent use of public funds. The Polish subsample places the greatest emphasis on employment, economic security, industrial continuity and territorial justice for traditional coal communities. The German subsample is most strongly oriented towards research, universities, infrastructure, quality of life and a combination of strategic and local interventions. Across all three countries, however, respondents share the expectation that transformation should create real opportunities for local residents, regenerate post-mining areas, enable greater citizen involvement and respect the industrial and mining identity of the regions.

These differences may have important implications for transformation policy design. A uniform model applied irrespective of regional context may not correspond to the expectations of local communities. The results indicate the need for a common just-transition framework that is sufficiently flexible to reflect regional circumstances: in regions where dependence on mining remains strong, employment and industrial diversification may be the main priorities; in regions at a more advanced stage of transformation, quality of life, the knowledge economy and new regional functions may be more prominent; elsewhere, transparency, brownfield regeneration and the creation of a new external image may be particularly important. Based on the survey results, the ability to combine shared principles with region-specific priorities appears to be an important condition for a socially acceptable transformation.

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Table 18 ***Overview of key differences between the Czech Republic, Poland and Germany***

Indicator	Czech Republic	Poland	Germany
Subsample size	81	124	96
New and high-quality jobs as a priority	75.3%	68.5%	61.5%
Attracting new investors as a priority	49.4%	50.0%	12.5%
Research, science and universities as a future sector	42.0%	25.0%	62.5%
Job losses and unemployment as a concern	44.4%	68.5%	46.9%
Corruption and ineffective use of funds as a concern	66.7%	53.2%	50.0%
Priority for the most affected municipalities (mean 1–5)	4.01	4.10	3.34
Priority for brownfields (mean 1–5)	4.41	4.15	4.01
Combination of large and smaller projects	69.1%	78.2%	89.6%
Willingness to participate personally	69.1%	83.9%	77.1%
Mining and industrial history as part of regional identity	91.3%	91.9%	81.1%
Need to fundamentally reinvent the region's image and reputation	72.5%	37.9%	26.1%

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Synthesis of national profiles

Dimension	Czech Republic	Poland	Germany
Dominant emphasis	modernisation, regional image, transparency	employment, industrial continuity, economic security	knowledge economy, quality of life, infrastructure
Territorial approach	strong preference for brownfields and affected areas	strongest emphasis on the most affected coal communities	brownfields strongly supported, weaker demand for geographical concentration
Participation	demand for influence but lower willingness to use formal mechanisms	highest declared willingness to participate	strong preference for deliberative and direct forms
Relationship with the past	strong identity + strong desire for a new regional image	strong identity + greater industrial continuity	strong heritage preservation + knowledge-based post-industrial direction

Interpretation note: The comparison is based on national subsamples of respondents rather than representative national samples. The German subsample is dominated by respondents from the Ruhr Region, the Polish subsample primarily by respondents from the Silesian Voivodeship, while the Czech subsample combines the Ostrava–Karviná region and the Most region. The observed differences may therefore reflect not only country-level factors but also sample composition, the stage of coal phase-out, and the specific historical and socio-economic context of the regions studied. The values should consequently be interpreted primarily descriptively; formal statistical testing of cross-country differences should be undertaken as a separate analytical step.

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5. Factors influencing attitudes towards transition

The previous chapters showed that respondents' attitudes towards transition are not uniform and differ both across countries and between groups of respondents. This chapter therefore focuses on factors associated with different perceptions of transition within the dataset. Particular attention is paid to regional and national context, household connection to mining, education and awareness, age, length of residence in the region, and respondents' economic situation.

Given the nature of the study, the term "influencing" should be interpreted with caution. The survey is cross-sectional, and the respondent sample was not randomly selected; consequently, the observed relationships do not demonstrate causality. It is more accurate to speak of factors associated with particular attitudes in the analysed sample. The findings in this chapter are therefore interpreted as descriptive relationships and indications of possible explanatory factors rather than evidence that a particular characteristic directly causes a specific attitude.

5.1 Regional and national context

The most pronounced differentiating factor in the dataset is the regional and national context. The direct comparison of the Czech Republic, Poland and Germany revealed different emphases in the transition process, and these differences are greater than most differences related to basic sociodemographic characteristics. The Polish subsample places the strongest emphasis on employment, industrial continuity and territorial justice; the German subsample on research, universities, infrastructure and quality of life; and the Czech subsample on modernisation, a new regional image, brownfield regeneration and transparent use of public funds.

These differences cannot automatically be attributed to nationality itself. The national subsamples also represent regions at different stages of coal phase-out and post-industrial transformation and differ in the extent to which respondents have a direct connection to the mining sector. In this study, country therefore also acts as an indicator of a broader historical, institutional, economic and transition context. For the interpretation of attitudes, regional experience with transition appears to be more important than nationality alone.

5.2 Connection to mining

The analysed data indicate an association between household mining connection and several attitudes towards transition. Respondents with a current connection show the strongest mining and industrial identity: the mean rating of the importance of mining and industrial history for regional identity reaches 4.57 out of 5, compared with 4.31 among respondents with no connection to mining. A similar difference is evident in support for preserving

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industrial heritage (4.49 compared with 4.21). A current connection to mining is therefore associated with stronger cultural and identity-related significance of the industrial past.

Descriptively, respondents with a current household connection to mining tended to express stronger support for preserving mining identity and for prioritising municipalities most affected by mining. These differences should, however, be interpreted cautiously pending formal statistical testing. Among respondents with a current connection to mining, agreement that the region's future lies in modern technologies, research and education rather than traditional industry reaches a mean of only 3.17. Among respondents with a former connection, the mean is 3.89, and among those with no connection it is 3.78. This does not imply rejection of modern technologies, but rather greater caution towards the idea that new sectors should replace traditional industry. Interestingly, respondents with a former connection to mining are more open to this direction than those whose connection to mining is still current.

Respondents with a current connection to mining also show stronger support for directing transition projects towards the municipalities most affected by mining (mean 4.02 compared with 3.56 among respondents with no mining connection). This relationship supports the interpretation that personal or family experience of mining may be associated with greater sensitivity to territorial justice and to whether transition funding actually reaches communities that have borne the costs of mining and its phase-out.

5.3 Education and awareness

Education is most clearly reflected in the analysed dataset in relation to awareness of transition instruments. Awareness of the existence of public funding for transition was reported by 84.7% of respondents with a university education, compared with 62.6% among other respondents. This difference is also important in light of the sample structure, in which university-educated respondents are substantially overrepresented. The overall level of awareness of transition programmes observed in this study may therefore be higher than would be expected in the population of the surveyed regions.

Education itself, however, does not produce a consistent difference across all value-based attitudes. Support for brownfield reuse, mining identity and modern economic development, for example, remains relatively high in both educational groups. Respondents without a university education even show somewhat stronger support for directing projects towards the municipalities most affected by mining (4.01 compared with 3.76). Education therefore appears in the data primarily as a factor associated with access to information and knowledge of transition instruments rather than as a simple predictor of support for or opposition to transition.

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An even clearer relationship is visible for subjective awareness. Among respondents who consider themselves very well or moderately informed, 85.2% are aware of public funding for transition, compared with only 62.9% among those who consider themselves rather poorly informed or not informed at all. Better-informed respondents also show higher trust in local government (mean 3.57 compared with 3.01) and slightly higher trust in universities and the national government. This finding indicates an association between awareness and institutional trust, although the direction of the relationship cannot be determined from cross-sectional data: greater awareness may strengthen trust, just as greater trust may encourage stronger interest in information.

5.4 Age and length of connection to the region

Respondents' age is reflected primarily in awareness of transition funding. Among respondents aged 45 and over, 83.0% were aware of the existence of transition funding, compared with 72.5% among respondents under 45. Older respondents also show somewhat stronger support for directing projects towards the municipalities most affected by mining (mean 3.97 compared with 3.72) and for brownfield reuse (4.23 compared with 4.13). Differences in other value-based questions are, however, relatively small.

Surprisingly, length of residence in the region does not produce major differences in most of the attitudes examined. Respondents who have lived in the region since birth and other respondents assess mining identity, preservation of industrial heritage, brownfield reuse and future economic development in similar ways. A certain difference appears in the perceived need to change the region's image: respondents who have lived in the region since birth reach a mean of 2.97, compared with 3.26 among other respondents. This difference is nevertheless substantially smaller than the cross-country differences and should not be overinterpreted without further statistical testing.

5.5 Economic situation and perceptions of transition

Respondents' economic situation shows a weaker relationship with basic value-based attitudes in the available data than regional context, connection to mining or awareness. Respondents who assess their financial situation as very good or rather good show greater awareness of public funding for transition (81.1%) than respondents with an average or worse financial situation (71.5%). Differences in institutional trust or support for modern economic development are, however, relatively small.

Respondents with an average or worse financial situation show a somewhat stronger perceived need to change the region's image (mean 3.20 compared with 2.91 among respondents in a good financial situation). Economic situation showed only limited associations with attitudes towards transition. Although respondents reporting better household finances displayed somewhat higher awareness of funding opportunities,

differences in institutional trust and transition priorities remained relatively small. A more precise assessment would require simultaneous control for country, age, education, connection to mining and other respondent characteristics.

5.6 Synthesis of factors

The results show that attitudes towards transition are shaped by a combination of regional context and individual experience. The biggest differences are apparent between national and regional subsamples and according to respondents' current or former connection to mining. These factors are particularly associated with perceptions of the future economy, the significance of industrial identity and understandings of territorial justice. Education and age are more clearly reflected in levels of awareness, while their relationship with basic value-based attitudes is less consistent.

From the perspective of transition policy, it is important not to treat the public as a homogeneous group. Communities with an ongoing direct connection to mining may be more sensitive to employment preservation, industrial continuity and the fair allocation of resources to affected areas. Conversely, in settings where mining has already become more strongly associated with the past, there may be greater scope for focusing on new regional functions, the knowledge economy or changing the region's image. At the same time, the findings highlight the need for information and participation tools capable of reaching groups with lower levels of education and lower current awareness, which tend to be more difficult to reach through voluntary questionnaire surveys.

In a further analytical stage, these descriptive relationships should be statistically tested. Chi-square tests and Cramér's V can be used for categorical variables, while ordinal scales can be assessed, for example, using the Mann–Whitney U or Kruskal–Wallis tests. Ordinal or binary logistic regression could subsequently be used to assess several factors simultaneously. Such an approach would make it possible to determine whether, for example, differences associated with a connection to mining persist after controlling for country, age, education and respondents' economic situation.

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Table 19 ***Selected relationships between respondent characteristics and attitudes towards transition***

Factor	Group 1	Group 2	Main observed difference
Connection to mining	current connection	no connection	mining identity 4.57 vs. 4.31; priority for affected municipalities 4.02 vs. 3.56
Connection to mining	current connection	former connection	future in technology/research/education 3.17 vs. 3.89
Education	university education	other	awareness of transition funding 84.7% vs. 62.6%
Awareness	well/moderately informed	poorly/not informed	funding awareness 85.2% vs. 62.9%; trust in local government 3.57 vs. 3.01
Age	45 years and over	under 45 years	funding awareness 83.0% vs. 72.5%
Length of residence	since birth	other	only small differences; need to change regional image 2.97 vs. 3.26
Financial situation	good/very good	average or worse	funding awareness 81.1% vs. 71.5%

Interpretation note: The values in the table represent descriptive differences within the analysed sample. For scale-based questions, mean values on a five-point scale are reported. Without tests of statistical significance and multivariate analysis, it is not possible to determine whether the observed differences are independent of country and other respondent characteristics, nor can causal relationships be inferred.

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Key conclusions from the analysis of factors associated with attitudes

Most consistently observed associations:
– National/regional context
– Current or former household connection to mining

Other observed associations:
– Awareness level
– Educational attainment

Generally limited differences:
– Age
– Length of residence
– Household economic situation

Overall, the descriptive evidence suggests that attitudes towards transition are associated more consistently with respondents' regional context and experience of mining and transformation than with the basic demographic characteristics examined in this study. Differences related to age, length of residence and household economic situation were generally modest, whereas national/regional context and household mining connection were repeatedly associated with perceptions of territorial justice, future economic development and the role of mining and industrial identity.

The present analysis should be regarded as exploratory. The observed patterns provide a basis for subsequent inferential analysis, particularly for examining cross-country differences and the role of household mining connection. Future research could build on these findings through appropriate statistical testing and multivariate modelling, allowing the simultaneous assessment of country, mining connection, age, education, awareness and economic situation. Such an approach would help determine which associations remain significant after controlling for other respondent characteristics.

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6. Conclusions and recommendations

The questionnaire survey provided a comprehensive overview of residents' attitudes towards the ongoing socio-economic transition in coal and post-mining regions of the Czech Republic, Poland and Germany. Although the individual regions are at different stages of transition and differ in their historical, economic and institutional contexts, the results reveal a number of shared expectations. At the same time, perceptions of transition vary substantially according to regional context, connection to mining and level of awareness. This final chapter therefore summarises the main findings and translates them into recommendations for the planning and implementation of transition policies.

6.1 Main conclusions

The first major finding is that residents do not perceive transition merely as a process of replacing declining mining activities with new economic activities. Their assessment of transition is simultaneously linked to employment, quality of life, territorial development, the use of public funds, opportunities for citizens to influence decision-making, and the preservation of regional identity. A successful transition therefore cannot be reduced solely to the volume of investment or the number of newly created jobs.

The creation of new and high-quality jobs is among the most important expectations across all three countries. However, the importance of this issue differs between regions. Concerns about job losses are strongest in the Polish subsample, which also shows the highest current or former household connection to mining. The findings indicate that in regions where mining remains an important part of the economy and employment structure, transition must be closely linked to the creation of realistic alternative employment opportunities.

Another highly consistent finding is strong support for the regeneration of brownfields and previously used industrial and mining sites. Respondents across all three countries prefer the reuse of already transformed land over further expansion onto new sites. The transition of post-mining regions should therefore be systematically linked to brownfield regeneration, their new economic, public or environmental uses, and their reintegration into the regional structure.

The results also show that residents do not prefer a simple choice between a few large strategic projects and a larger number of small local projects. In all three countries, the dominant preference is for a combination of both approaches. Strategic investments can generate structural economic change, while smaller projects have the potential to deliver more immediate and visible benefits within local communities. Combining the two may also strengthen public support for the transition process.

Citizen participation is another important theme. In all three countries, the prevailing perception is that residents do not have sufficient influence over decisions concerning

the future of their region. At the same time, a substantial proportion of respondents declare a willingness to become involved in decision-making. This gap between the desired and perceived actual influence of residents represents an important challenge for transition governance. Participation should therefore not be understood merely as informing the public about projects that have already been prepared, but as an opportunity to influence priorities and the design of transition measures at a sufficiently early stage.

The survey also revealed a very strong mining and industrial identity in the regions studied. Preserving mining and industrial heritage is not incompatible with support for modernisation. The Czech results in particular show that respondents can simultaneously regard the mining past as a very important part of regional identity while also demanding a new regional image oriented towards future development. Industrial heritage therefore does not have to represent an obstacle to transition; on the contrary, it can become one of the components of a new regional identity.

An important methodological and practical finding is the uneven level of public awareness. Awareness of transition instruments and their funding is higher, particularly among university-educated and subjectively better-informed respondents. Since these groups were overrepresented in the survey, it is likely that some sections of the regional population have substantially less information about transition programmes. Effective transition therefore requires communication tools capable of reaching residents who do not actively follow transition-related topics or professional and social networks.

6.2 Cross-country implications

Although the countries share a common core of attitudes, the findings do not support the existence of a single universal transition model suitable for all coal regions. The Czech, Polish and German subsamples emphasise different aspects of the transition process, probably reflecting differences in the stage of coal phase-out as well as the historical experience of the individual regions.

The Czech subsample is characterised by a strong emphasis on modernisation, brownfield regeneration, transparent use of public funds and the need to create a new regional image. At the same time, mining and industrial identity remains exceptionally strong. The Czech case therefore demonstrates that preserving industrial heritage can be combined with substantial change in the region's future economic profile and external image.

The Polish subsample places the strongest emphasis on employment, economic security, industrial continuity and the requirement that transition resources should reach communities most affected by mining. The strong connection of respondents to the mining sector indicates that transition cannot be separated from the future of traditional industrial employment

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and local economies. In this context, modernisation is more often perceived as technological and economic diversification rather than the complete replacement of the industrial base.

The German subsample is most strongly oriented towards research, universities, education, infrastructure, quality of life and green technologies. It also shows very strong support for combining strategic and local projects and high trust in knowledge institutions. The German findings therefore correspond to a transition model in which the challenge is no longer merely to replace mining, but to achieve a long-term transformation of the functions of a post-industrial region.

For transition policy, this implies that common European or national principles should leave sufficient room for regional adaptation. The same type of intervention may have different significance and receive different levels of public support at different stages of transition.

6.3 Recommendations for transition policy and practice

1. Link economic transition to tangible benefits for local residents. New investments should be assessed not only according to their overall economic impact, but also according to whether they create high-quality jobs and other measurable benefits for residents of affected regions.

2. Adapt transition instruments to the stage of coal phase-out and the regional context. Regions with an ongoing strong connection to mining require greater emphasis on employment, retraining and industrial diversification. In regions at a more advanced stage of transition, greater emphasis can be placed on the knowledge economy, quality of life and new regional functions.

3. Systematically prioritise brownfield regeneration. Strong support for brownfield reuse in all three countries provides a suitable basis for linking economic transition with the regeneration of post-mining and industrial sites while limiting the use of previously undeveloped land.

4. Combine large strategic investments with smaller local projects. Transition programmes should not be based solely on a few flagship projects. Smaller projects can deliver faster and more visible changes in municipalities and strengthen the perception that local communities also benefit from transition.

5. Strengthen the actual influence of residents on decision-making. Participation should begin at the stage of setting priorities and selecting projects. Online consultations should be combined with public meetings, workshops, citizen panels and other tools according to the preferences of the particular region.

6. Extend communication beyond already active and well-informed groups. Information about transition should be disseminated not only through professional networks and social media, but also through municipal newsletters, local institutions, schools, community organisations and other channels accessible to residents with lower levels of engagement.

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7. Strengthen transparency in decision-making and funding. The Czech results in particular reveal strong sensitivity to the risk of corruption and ineffective use of public funds. Publicly accessible information on project selection, costs, expected benefits and achieved results can strengthen trust in the transition process.

8. Preserve industrial heritage as part of the region's future identity. Transition should not be presented as erasing the mining past. A more appropriate approach is to connect the preservation of significant elements of industrial heritage with new economic, cultural, educational and tourism functions.

9. Continuously monitor residents' attitudes. Transition is a long-term process and public attitudes may change as mines close, projects are implemented and their results become visible. Repeated surveys would make it possible to assess not only current attitudes but also their development and the effects of transition policies.

6.4 Research limitations and further research

The findings should be interpreted in light of several limitations. Respondents were not selected randomly, and the questionnaire was distributed through social media, professional and stakeholder contacts, QR codes and municipal communication channels. Willingness to participate voluntarily differed between population groups, resulting particularly in an overrepresentation of university-educated and probably also more active and better-informed respondents. The findings therefore cannot be considered representative of the entire population of all regions studied.

The size and regional composition of the national subsamples also differ. The German sample is dominated by respondents from the Ruhr Region, the Polish sample primarily by respondents from the Silesian Voivodeship, while the Czech sample combines the two main coal regions. The observed cross-country differences may therefore reflect not only national context but also differences in the stage of coal phase-out, regional economic structure and the historical trajectory of transition.

Further research should test the most important descriptive relationships using statistical tests and multivariate methods. Attention should be paid to the relationships between connection to mining, country, awareness, education and attitudes towards future economic development. It would also be useful to complement the quantitative findings with qualitative interviews or focus groups, which could provide a deeper explanation of the motivations underlying some of the differences between regions.

Despite these limitations, the survey provides a valuable comparative perspective on how residents of European coal regions at different stages of transition perceive their future. The principal conclusion is that a socially acceptable transition must simultaneously create new economic opportunities, deliver visible local benefits, respect regional identity and enable

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residents to participate meaningfully in decision-making. The success of transition will therefore depend not only on the volume of available funding, but also on whether resources are used in ways that correspond to the needs and expectations of specific communities.

Table 20 ***Main findings and their implications for transition policy***

Main finding	Implication	Recommended approach
Jobs remain a key expectation	greater importance in regions with a direct connection to mining	link investment to high-quality local employment and retraining
Strong support for brownfield reuse	a common principle across countries	prioritise regeneration of previously used sites
Preference for combining large and small projects	strategic and local projects are not perceived as opposites	combine structural investments with visible local interventions
Insufficient perceived influence of residents	risk of weakening the legitimacy of transition	involve the public already when priorities are being defined
Strong mining and industrial identity	modernisation does not have to mean rejecting the past	connect industrial heritage with new functions
Different national and regional priorities	a single universal model is inappropriate	adapt instruments to regional context and stage of transition
Uneven awareness	some residents may remain outside the transition process	diversify communication channels and target less active groups

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Appendix 1

CAWI questionnaire

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Our Region, Our Future: Citizen Perspectives on Regional Change

Dear Participant,

You are invited to take part in a research study evaluating the socio-economic transformation of your region following the cessation of coal mining. The objective of this questionnaire is to analyze residents' perceptions regarding regional development, economic restructuring, local quality of life, and the allocation of public transition funds. Your insights are highly valuable for understanding the public impact ofthis transformation.

Survey Guidelines

Complete anonymity
Your participation is entirely voluntary, and your privacy is fully protected. This survey is completely anonymous:
- No Identifiers: We do not collect your name, email, or any contact details.
- No Technical Tracking: Our survey system does not store your IP address, device information, or location.
- Aggregated Results: Individual responses will be combined. No single response can be linked back to you.

How the Data is Used
The results will be used solely for statistical analysis and reporting.

Duration: The survey requires approximately 10–15 minutes to complete.

We greatly appreciate your cooperation and contribution to this study.

Team of the RAISING project
raising.gig.eu

The survey is carried out as part of the project **RAISING: Raising Awareness of Small Local Communities in the Process of Coal Mining Transition** The aim of the project is to raise awareness among small local communities about the need for the transition of both hard coal and lignite mining, and to promote new visions for the development of mining regions. RAISING project has received funding from the Research Fund for Coal and Steel (RFCS) under Grant Agreement No. 101216335

Demographics

1. What is your gender? *

- ◯ Male
- ◯ Female
- ◯ Non-binary / Other
- ◯ Prefer not to say

2. How old are you? *

- ◯ under 18
- ◯ 18 - 24
- ◯ 25 - 34
- ◯ 35 - 44
- ◯ 45 - 54
- ◯ 55 - 64
- ◯ 65 +

3. What is the highest level of education you have completed? *

- ◯ Primary education
- ◯ Secondary education without graduation exam
- ◯ Secondary education with graduation exam
- ◯ Higher vocational education / Non-university professional education
- ◯ University education

4. What is your current economic status? *

- ◯ Employed
- ◯ Self-employed
- ◯ Student
- ◯ Unemployed
- ◯ Retired
- ◯ Jiné

5. How would you evaluate your household's financial situation? *

- ◯ Very good
- ◯ Rather good
- ◯ Average
- ◯ Rather poor
- ◯ Very poor
- ◯ Prefer not to say

6. Have you or a member of your household ever worked in mining or mining-related industries? *

- ◯ Yes, currently
- ◯ Yes, in the past
- ◯ No

7. How long have you lived in the (post-) mining region? *

- ◯ Since birth
- ◯ More than 10 years
- ◯ 5–10 years
- ◯ Less than 5 years

Country CZ/DE/PL

8. In which country do you live? *

- ◯ Czech Republic
- ◯ Germany
- ◯ Poland

CZ part

9. In which part of the region do you live? *

- ◯ Ostrava-Karvina region
- ◯ Most region

10. In which part of the region do you live?

- ◯ Karviná
- ◯ Havířov
- ◯ Orlová
- ◯ Staříč
- ◯ Doubrava
- ◯ Stonava
- ◯ Petřvald
- ◯ Rychvald
- ◯ Ostrava
- ◯ Jiné

CZ Most

11. In which part of the region do you live?

- ◯ Most
- ◯ Litvínov
- ◯ Chomutov
- ◯ Bílina
- ◯ Kadaň
- ◯ Jirkov
- ◯ Mariánské Radčice
- ◯ Jiné

DE

12. In which part of the region do you live?

- ◯ Ruhr Region
- ◯ Tecklenburger Land
- ◯ Rhineland
- ◯ Lusatia
- ◯ Central Germany
- ◯ Helmstedt
- ◯ Other / I live outside these regions

PL

13. In which part of the region do you live? *

- ◯ Silesian Voivodeship
- ◯ Lubelskie Voivodeship
- ◯ Wielkopolskie Voivodeship
- ◯ Dolnośląskie Voivodeship
- ◯ Jiné

Relationship to the Region

14. What is your relationship to the region? *

- ◯ I have a strong emotional attachment to it and cannot imagine living elsewhere
- ◯ I am used to living here and would not like to move away
- ◯ I do not have any special attachment to the region and could leave

15. Have you ever considered leaving the region *

- ◯ Yes, often
- ◯ Yes, occasionally
- ◯ No

16. What would be the main reason for leaving the region if you were to move away? (max. 3 answers) *

Vyberte prosím maximálně 3 možnosti/í.

- ☐ Lack of job opportunities
- ☐ Low wages
- ☐ Housing affordability
- ☐ Environmental quality
- ☐ Availability of healthcare
- ☐ Lack of cultural life
- ☐ Lack of quality education
- ☐ Safety concerns
- ☐ Jiné

Evaluation of the Region

17. How serious do you consider the following issues in your region? *

	Not a problem	Minor problem	Moderate problem	Major problem	Don't know
Lack of job opportunities	◯	◯	◯	◯	◯
Housing availability	◯	◯	◯	◯	◯
Quality of healthcare	◯	◯	◯	◯	◯
Environmental pollution	◯	◯	◯	◯	◯
Condition of infrastructure	◯	◯	◯	◯	◯
Public transport	◯	◯	◯	◯	◯
Public safety and crime	◯	◯	◯	◯	◯
Drugs, gambling and social exclusion	◯	◯	◯	◯	◯
Outmigration of young people	◯	◯	◯	◯	◯
Distrust in politics	◯	◯	◯	◯	◯

18. How satisfied are you with the quality of life in the region? *

☆ ☆ ☆ ☆ ☆

Future of the Region

19. What feelings does the future of the region evoke in you? (select all that apply) *

- [ ] Hope
- [ ] Optimism
- [ ] Uncertainty
- [ ] Concern
- [ ] Fear
- [ ] Indifference
- [ ] Pride
- [ ] Jiné

20. To what extent do you agree with the following statements? *

	Strongly agree	Partly agree	Neither agree nor disagree	Partly disagree	Strongly disagree	Don't know
The region has a chance for a successful future	◯	◯	◯	◯	◯	◯
The regional transformation will improve my personal quality of life	◯	◯	◯	◯	◯	◯
Young people have good reasons to stay in the region	◯	◯	◯	◯	◯	◯
Public funds for transition are being used effectively	◯	◯	◯	◯	◯	◯
Decision-makers have a clear vision for the future of the region	◯	◯	◯	◯	◯	◯
Transformation will create opportunities for local businesses	◯	◯	◯	◯	◯	◯
Transformation will improve opportunities for future generations	◯	◯	◯	◯	◯	◯
Transformation will primarily benefit local residents	◯	◯	◯	◯	◯	◯
My opinion matters in decisions about the future of the region	◯	◯	◯	◯	◯	◯

Information and Regional Transformation

21. How well informed do you feel about the transformation of your region? *

- ◯ Very well informed
- ◯ Moderately informed
- ◯ Rather poorly informed
- ◯ Not informed at all / I have never heard about it

22. If you do not feel sufficiently informed, what information do you miss the most? (max. 2answers) *

Vyberte prosím maximálně 2 možnosti/í.

- ☐ Information about planned projects
- ☐ Information about job opportunities
- ☐ Information about how public funds are being spent
- ☐ Opportunities to participate in decision-making
- ☐ Clearly explained transformation goals
- ☐ Information about concrete impacts on ordinary residents
- ☐ I do not actively seek out information on this topic
- ☐ Jiné

23. What should be the highest priorities for the transformation of your region? (max. 3answers) *

Vyberte prosím maximálně 3 možnosti/í.

- [ ] Creating new and high-quality jobs
- [ ] Attracting new investors
- [ ] Environmental improvement
- [ ] Expanding education and retraining programs
- [ ] Supporting local small and medium-sized businesses
- [ ] Improving housing availability and affordability
- [ ] Upgrading healthcare services and infrastructure
- [ ] Improving public transport and regional connectivity
- [ ] Developing tourism and recreational spaces
- [ ] Strengthening cultural and community life
- [ ] Jiné

24. Which economic sectors should be prioritised for the future development of the region? (max. 3 answers) *

Vyberte prosím maximálně 3 možnosti/í.

- [ ] Manufacturing industry
- [ ] Modern technologies and innovation
- [ ] Renewable energy and green technologies
- [ ] Logistics and transport
- [ ] Tourism and leisure
- [ ] Research, science, and university development
- [ ] Healthcare and social services
- [ ] Small and medium-sized enterprises
- [ ] Cultural and creative industries
- [ ] Sustainable agriculture and food production
- [ ] Jiné

25. What are your biggest concerns regarding the regional transformation? (max. 3 answers) *

Vyberte prosím maximálně 3 možnosti/í.

- [ ] Loss of jobs and rising unemployment
- [ ] Transformation being too expensive for taxpayers
- [ ] Corruption and ineffective use of public funds
- [ ] Further damage to the landscape and environment
- [ ] Lack of clear information for residents
- [ ] Decision being made without citizen participation
- [ ] Large companies benefi ting while local people are left behind
- [ ] Nothing will really change
- [ ] Jiné

26. Which of the following approaches is closer to your personal opinion? *

- ◯ Approach A – Faster economic growth and new investments, even if it leads to major landscape changes
- ◯ Approach B – Protection of natural and historical heritage, even if it results in slower economic growth
- ◯ Combination of both
- ◯ I do not know

Funding and Strategic Projects

27. Are you aware that the region can receive financial support from European or national transformation funds? *

- ◯ Yes
- ◯ No

28. To what extent do you agree with the following statements regarding regional funding and project placement? *

	Strongly agree	Partly agree	Neither agree nor disagree	Partly disagree	Strongly disagree	I do not know
New projects should primarily be located in the municipalities most affected by mining	◯	◯	◯	◯	◯	◯
Transforming brownfields and abandoned industrial sites should be a top priority	◯	◯	◯	◯	◯	◯
I do not mind if projects are located outside mining areas, as long as they create jobs	◯	◯	◯	◯	◯	◯
I oppose using high-quality agricultural land for new industrial projects	◯	◯	◯	◯	◯	◯
Commuting outside former mining areas for work is a serious problem for local residents	◯	◯	◯	◯	◯	◯
Public funds should support small, local projects rather than large, regional investments	◯	◯	◯	◯	◯	◯

29. Which of the following approaches is closer to your personal opinion? *

- ◯ Definitely - Approach A – Strategic projects should mainly be built where they bring the greatest economic benefits, even outside former mining areas.
- ◯ Rather A
- ◯ Rather B
- ◯ Definitely - Approach B – Strategic projects should primarily be located in the most affected areas and on brownfields, even if this is more complicated or expensive.
- ◯ I do not know

30. What should receive more support? *

- ◯ A few large strategic projects
- ◯ Smaller local projects
- ◯ Combination of both
- ◯ I do not know

Decision-making and Participation

31. How much influence should the following actors have on decisions about the future of your region? *

	No influence	Minor influence	Moderate influence	Strong influence	Very strong influence	I do not know
Local municipalities and mayors	◯	◯	◯	◯	◯	◯
Regional governments and politicians	◯	◯	◯	◯	◯	◯
National government	◯	◯	◯	◯	◯	◯
European Union	◯	◯	◯	◯	◯	◯
Universities and research centers	◯	◯	◯	◯	◯	◯
Local businesses and small employers	◯	◯	◯	◯	◯	◯
Large external investors and companies	◯	◯	◯	◯	◯	◯
Ordinary citizens of the region	◯	◯	◯	◯	◯	◯
Non-governmental organizations (NGOs)	◯	◯	◯	◯	◯	◯

32. How much do you trust the following institutions? *

	Don't trust them at all	Rather don't trust them	Rather do trust them	Completely trust them	Neutral/ I don't know
Local government	◯	◯	◯	◯	◯
Regional politics	◯	◯	◯	◯	◯
National government	◯	◯	◯	◯	◯
European Union	◯	◯	◯	◯	◯
Universities	◯	◯	◯	◯	◯
Local companies	◯	◯	◯	◯	◯
NGOs	◯	◯	◯	◯	◯

33. Do you think residents currently have enough influence over decisions about the future ofthe region? *

- ◯ Definitely yes
- ◯ Rather yes
- ◯ Rather no
- ◯ Definitely no
- ◯ Neutral / I don't know

34. Would you personally be willing to participate in activities or initiatives related to the future development of your region? *

- ◯ Definitely yes
- ◯ Rather yes
- ◯ Rather no
- ◯ Definitely no
- ◯ Neutral / I don't know

35. In which forms of participation would you be most willing to engage? (select all that apply) *

- [ ] Attending public meetings and workshops
- [ ] Participating in online consultations and surveys
- [ ] Taking part in participatory budgeting initiatives
- [ ] Joining citizen panels
- [ ] Working through local community associations and NGOs
- [ ] Paricipating in hands-on volunteering activities
- [ ] I am not interested in participating
- [ ] Jiné

36. What are the main reasons that prevent you from becoming more involved in regional development and transformation? (max. 3 answers) *

Vyberte prosím maximálně 3 možnosti/í.

- [ ] Lack of clear information about opportunities
- [ ] Lack of personal time
- [ ] Lack of interest in regional development topics
- [ ] Lack of trust in public institutions
- [ ] Belief that decisions are made regardless of citizens' opinions
- [ ] Complexity of the issues
- [ ] Lack of accessible opportunities to participate locally
- [ ] Poor communication from authorities
- [ ] Jiné

Identity and Future Direction of the Region

37. To what extent do you agree or disagree with the following statements regarding regional identity and heritage? *

	Strongly agree	Partly agree	Neither agree nor disagree	Partly disagree	Strongly disagree	I do not know
The history of mining and industry remains a corepart of this region's identity	◯	◯	◯	◯	◯	◯
Former mines and industrial sites should be partially preserved as cultural heritage monuments	◯	◯	◯	◯	◯	◯
The region should focus entirely on new economic sectors rather than its industrial past	◯	◯	◯	◯	◯	◯
Younger generations today feel a much weaker connection to this region than older generations	◯	◯	◯	◯	◯	◯
It is crucial that economic transformation does not happen at the expense of local history and identity	◯	◯	◯	◯	◯	◯
The region needs to completely reinvent its public image and external reputation	◯	◯	◯	◯	◯	◯
I see the future of this region in modern technology, research, and education rather than traditional industry	◯	◯	◯	◯	◯	◯

Open-Ended Questions

38. In your opinion, what does this region need the most right now?

39. What are your biggest individual concerns regarding the future of the region?

40. How do you imagine the ideal future of the region in 20 years?

41. Do you have any comments or feedback for the authors of the survey?

Thank you for participating in the survey. Click SUBMIT to send.

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