



ENTRANCES

ENergy TRAnSitions from Coal and carbon: Effects on Societies

D2.1 Compilation of tools and methodologies for empirical analysis

Version 5/2021



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Introduction

The ENTRANCES Deliverable D2.1 Compilation of tools and methodologies for empirical analysis is based on work performed in tasks 2.1 Framework for empirical analysis and 2.2 Tools for the empirical analysis. The deliverable includes four methodological guidelines:

- Socio-Ecological-Technical Systems: Guidelines and Interview Protocol to assess Transformative Capacity in Regions
- Socio-political component: methodological guide for text analysis
- Mapping Socio-Cultural Stress at the territorial level: Methodological Guidelines
- Measuring Socio-Psychological Stress: Methodological Guidelines

The guidelines provide instructions for ENTRANCES partners, how to implement the research methodologies semi-structured interviews, text analysis, focus groups, and survey research. The methodologies will be applied in each of the 13 ENTRANCES case studies, and these guidelines will ensure a coherent application of the methods. The deliverable D2.1 is complementary to D2.2 Collection of research protocols, guidelines, and data management tools (DMT). In D2.2 we have compiled the necessary templates, protocols, etc. for implementing the methods, such as excel files for data collection, with coding grid for text research, for assessing stakeholders on transformative capacities (e.g. role, power), word documents with consent form for survey research, interview questionnaire, etc.

These guidelines represent the current state of affairs of methodology development. However, experience gathered in the implementation of the methods will be taken into account, and the guidelines will be revised in the course of the ENTRANCES project implementation (Task 2.5). We foresee regular online meetings among the project partners, to exchange on experience, e.g. with coding of texts in the text analysis methodology (update of coding grid, etc.), and state of survey implementation.

The implementation of the methods has been reshuffled taking into account the pandemic COVID-19 situation. Methods not requiring face-to-face contacts or only to a limited extent have been moved forward in time, and others requiring such interaction have been pushed backwards. As a result, text and survey research will be implemented in the period May-September 2021, while interview and focus group

research will be implemented in October-December 2021. A physical meeting or online workshop is planned for end of September/early October 2021 for launching the interview and focus group research phase, and for revising the results of text and survey research.

We note that the methodological guidelines and related research protocols, templates, etc. have been developed and discussed in various methodological online workshops and sessions among ENTRANCES consortium partners.

- First outlines of methodologies were developed in preparation of a two day methodology workshop, held online 17-18 December 2020. The workshop served to present the approaches to the methodologies and gather input from partners.
- The outcomes of the methodology workshop were integrated in the draft methodologies, and the details further elaborated in small group online meetings among the component and WP leaders, with participation of other experts from the consortium.
- The methodologies were then presented to the whole consortium in a series of online sessions on 23 and 26-27 April 2021. Drafts were then finalised by end of May 2021.

Besides the authors mentioned above (in the document control sheet), many other ENTRANCES partners and colleagues have contributed to the guidelines (and related documents in D2.2), including Christian Klöckner, Erica Lövström, Alim Nayum, Guiseppe Masini (NTNU), Adrian Healey, Laura Norris (CU), Lidia Gawlik, Wojciech Kowalik, Aleksandra Komorowska, Wit Hubert (IGSMiE PAN), Andrei Holman, Simona Popusoi, Stefan Boncu (UAIC), Katja Heinisch, Christoph Schulz, Oliver Holtemöller, Walter Bartl, Reinhold Sackmann (IWH), Elena Deluca (ENEA), Fabio Feudo (K&I).



ENTRANCES

ENergy TRAnSitions from Coal and carbon: Effects on Societies

[Título]

Socio-Ecological-Technical Systems: Guidelines and Interview Protocol to assess Transformative Capacity in Regions



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V3	26/04/2021	Tristam Baret, Marc Wolfram, Manfred Spiesberger, Markus Otter		Version for methodology presentation to ENTRANCES partners
V4	27/05/2021	Tristam Baret,	Marc Wolfram, Manfred Spiesberger, Markus Otter	Final version

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CHAPTER 1

INTRODUCTION



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Step 1 – Introduction

1.1 Introduction

This methodological guide provides instructions on how to implement the semi-structured interviews methodology for the socio-ecological and socio-technical components (SETS) in the ENTRANCES project. At least 7–10 semi-structured interviews shall be conducted in each case study region with key stakeholders.

1.2 Research Questions and Factors

This joint component seeks to leverage the insights of socio-ecological and socio-technical systems thinking to assess the transformative capacity available in case study regions, focusing on the respective regional economic development system involved in shaping their decarbonisation pathways.

Transformative capacity is understood here as the “type of power that effectuates deep and holistic [regional] change, resulting from particular forms of agency and interactions in a given institutional and spatial-material setting”.¹ Transformative capacity “forms a qualitative and contingent measure of [regional] system dynamics describing a set of key parameters concerning actors, institutions, physical environs, and their interaction processes”.

The focus on transformative capacity allows us to discern how far a region is actually able to deviate from its current (carbon-intensive) path. This enables interpretations regarding (a) challenges faced and the utility of the coping strategies employed, (b) implications in terms of deterritorialisation, and (c) policy options driving reterritorialisation and transformative decarbonisation.

For this study, the SETS component leaders have identified the following factors, which need to be investigated with the help of the semi-structured interview method:

1. Inclusive and multiform governance
2. Transformative leadership (in the public, private and civil society sectors)
3. Empowered and autonomous communities of practice
4. System(s) awareness and memory
5. Sustainability foresight
6. Diverse community-based experimentation with disruptive solutions

¹ Wolfram, Marc, Sara Borgström, and Megan Farrelly. 2019. “Urban Transformative Capacity: From Concept to Practice.” *Ambio* 48: 437–448. doi:10.1007/s13280-019-01169-y.



7. Innovation embedding and coupling
8. Reflexivity and social learning
9. Working across human agency levels
10. Working across political-administrative levels and geographical scales

The detailed descriptions of the factors are available and need to be checked in the ENTRANCES Deliverable 1.2 Report on Multidimensional Key Factors, Annex 5, Socio-ecological and Socio-technical Components, Short Report on Key Factors, Dynamics and Patterns.

1.3 Expectations Towards Partners

We briefly summarise the expectations for implementation of the semi-structured interview method towards ENTRANCES partners.

- Perform the stakeholder identification through the stakeholder grid (excel file), which was made available on 8 April 2021.
- Collect basic information required for detailed operationalisation of factors, in particular on the governance of the region. This has to be done in the frame of the state-of-the-art analysis performed in January–May 2021.
- Translate interview guide
- Identify potential interviewees, organise and conduct at least 7–10 semi-structured interviews with key stakeholders.
- Possibly: record and translate interviews
- Code and analyse interviews with software to be decided (probably Excel and MaxQDA).
- Data storage
- Prepare a draft report of the interview results in English

1.4 Timing of Implementation of Method

The method will be implemented between September and December 2021.

1.5 Unit of Analysis

The unit of analysis for this research method is the Political Administrative Region (PAR) of the respective case study. The PAR is the unit, which is most closely associated with governing the transition of the Coal and Carbon Territory through a directly-elected legislature. Stakeholders relate to this broader territorial frame, including the Coal and Carbon Territory (CCT).



CHAPTER 2

STAKEHOLDER MAPPING



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Step 2– Stakeholder Mapping

Stakeholder analysis is a key step for SETS components, as potential interview partners need to be identified. This work has been coordinated with the socio-political component.

2.1 Stakeholder Grid

A stakeholder grid (Excel template) was made available at the beginning of April 2021 to ENTRANCES partners together with the state-of-the-art analysis template for case studies. The grid serves to collect and categorise stakeholders. The following categories with particular importance for the SETS component have been included in the grid:

- Stakes and/or strategic goals of organisations and individuals: a detailed range of 27 stake attributes has been developed in the grid, including climate, local ecology, economic growth, employment, etc.
- Role of each stakeholder in system change: this requires assessing the role of stakeholders in the decarbonisation transition, for instance, as decision makers, regulators, legitimators, innovators, knowledge developers/diffusers, market formers, transition intermediaries, etc. Further detail is asked on the kind of intermediary role stakeholders may perform.
- Power of each stakeholder: this requires assessing where current and potential power lie in relation to system change. For this category 10 attributes have been specified, e.g., economic/market power, knowledge, discursive power, etc.



CHAPTER 3

REGIONAL GOVERNANCE, STRATEGIES AND ECOLOGICAL ISSUES



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Step 3 – Regional Governance, Strategies and Ecological Issues

Besides stakeholder mapping it needs also be researched, which governance regimes are in place in case study regions, and which kind of visions (e.g., in the form of *Leitbilder* [guiding visions], strategies, etc.) exist for decarbonisation and transformation.

These factors have been addressed in the state-of-the-art analysis template for case studies made available to ENTRANCES partners at the beginning of April 2021. Further research in preparation for and to support analysis of interviews may be done as appropriate to the case.

3.1 Governance

Who is driving the transition? Which stakeholders have which role in the region (policy makers, energy agencies, companies, civil society)? For details, see the template for state-of-the-art analysis case studies, section: political regime, governance, economic power.

What is the role of intermediaries, innovation hubs and clusters in the case?

3.2 Strategies

Major strategies relevant for the coal and carbon transition shall be identified at the various regional levels (CCT, LMR, PAR) at the state-of-the-art phase. These strategies may include:

- Is coal phase out/decarbonisation addressed in a specific strategy, e.g., of the local administrative unit, regional government, city administration, at national level, or by non-governance actors, e.g., transition towns
- Is decarbonisation addressed in other strategies, e.g., smart specialisation?
- Have foresight studies been conducted, e.g., by local authorities?
- Have specific stakeholders (e.g., trade unions, NGOs) developed strategies for coal/carbon phase out?

3.3 Ecological Issues

To gather input on ecological issues in the case studies, a set of issues to be answered has been included in the state-of-the-art analysis of case studies template.

- What is the environmental impact of coal and carbon in the case?



- How important are ecological challenges in the region, such as pollution, restoring of ecosystems?
- Are there success stories of transition or stories of failure, e.g., transformation of industrial landscapes?



CHAPTER 4

PREPARATION OF INTERVIEWS



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Step 4 – Preparation of Interviews

4.1 Stakeholder Selection

The sample will be chosen from the list of stakeholders established during case delineation. The criteria for inclusion in the initial list of stakeholders for interview should be to obtain at least one of each from the following categories and, where possible, sub-categories, with the possibility of adding more, depending on the characteristics of the case study region, to allow for the specificities of the case (e.g., preponderance of civil society stakeholders) to be represented. The stakeholder typology here presented differs slightly from the Stakeholder Grid insofar as it seeks to provide a simplified framework to obtain a balanced representation of stakeholders in the regional system in question.²

Table 1 – Stakeholder Selection Grid

I. Public Sector	
1	Environmental policy actor
2	Economic policy actor
3	Actors representing different scales (local, regional, national/EU, if relevant)
II. Private Sector	
4	Key industry facing decarbonisation / other big players
5	SMEs and their representations, e.g., chambers of commerce, skilled crafts (i.e., in Germany, IHK and HWK)
III. Civil Society (e.g., Local/Regional NGOs/CSOs)	
6	Social
7	Ecological
8	Other important local stakeholders
IV. Third Sector	
9	Trade Unions
10	(national/international) NGOs, energy and environment
11	Scientific and research, social and/or technical in relation to the transition
12	Higher of Further Education
V. Intermediaries	

² As a guide, depending on the stakeholder attributes, Category I may include 4–5, 6 of the Stakeholder Grid; Category II: 0–3, 6, 11; Category III: 8–10, 12, 13–15; Category IV: 8–12, Category V: 7.



Intermediaries should be explicitly identified and included where available, although these may fall into different of the above categories.

We are tasked in the ENTRANCES Sealed Proposal to produce 7–10 interviews. In the Methodology workshop, we discussed conducting 8–12. Selection would be drawn from the identified stakeholders, with an eye to maintaining representativity across the above categories, and therefore comparativeness across the cases.

4.2 Gender Representativity

While gender representativity may be a normative goal, failure to obtain it may in itself be a **research finding**. Thus, where possible, we should seek a balance in our selection of interview partners, but, but if this involves significant trade-offs in terms of the seniority or knowledgeability of the interviewee, it would be preferable to reflect an accurate picture of the gender situation. The presence or lack of women in key roles in certain sectors, is itself reflective of the conditions in the case study, and may be an indicator of strong path-dependencies that inhibit transformative capacity. This should be critically discussed in the research findings.

If there are challenges involving women in Focus Groups, their perspectives might be better assessed in semi structured interviews as women may feel more comfortable with a 1 on 1 interview (or in a homogeneous group discussion). This will be decided at a later stage and interviews may be adapted accordingly.

4.3 Stakeholder Engagement and Recruitment of Interviewees

To be effective as more than an academic exercise, capacity assessment requires engaged stakeholders and a clear design, especially regarding intended and possible outcomes. An important question here is what role we envisage interview partners as having. In the Methodology Workshop, the issue of actively engaging stakeholders in capacity assessment (and by implication, development) was raised. This would meet the transdisciplinary interest of the project, and should be considered as part of our methodology.

There are other reasons for developing a stakeholder engagement strategy: these actors will hopefully be engaged throughout the project, some may be important gatekeepers to local communities or communities of practice, they might be interested in our research process and findings – it may be a useful aspect of preparing a



decarbonisation intervention – and there may be scope for building relationships and developing partnerships to implement elements of the research.

Another reason for establishing our approach is that the interviews can be designed either (a) for researchers to make an assessment of the state of the case study in relation to the factors, or (b) as a stakeholder self-assessment, which can then be used as the basis for further analysis and discussion (with researcher's own assessments or with the assessments of other stakeholders). This may affect the approach to research and knowledge development with stakeholders.

It would therefore be important to identify whether we have a partner in the region who may be invested in such knowledge, e.g., a regional development agency. These may, in turn, be a useful gatekeeper to other stakeholders and facilitate participation.

Arguments to help convince stakeholders of the value of participation may include:

- This is an EU-wide study on coal and carbon transition covering 13 case studies, which will provide the opportunity for comparison across cases and knowledge exchange between European regions.
- ENTRANCES supports decarbonisation and energy transition with research findings, strategies and policy recommendations. These strategies and policy recommendations will be elaborated in a co-creation approach, involving local stakeholders, and herewith adapted to the local needs. They will be made available to local administrations, and stakeholders for uptake in their future-oriented work on decarbonisation.
- Findings on the specific situation will be communicated to the national and EU levels and policy/decision makers



CHAPTER 5

CONDUCTING INTERVIEWS



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Step 5 – Conducting Interviews

5.1 Number of Interviewees

This will be defined on the basis of stakeholder analysis, and depending on the case. We shall conduct a minimum of 7–12, and preferably 8–12 interviews with expert stakeholders.

5.2 Interview Format

Interviews will consist of a closed questionnaire with 2–3 questions per factor. It is expected that these will need to be explained and discussed, and the interview, including discussion should be recorded (where possible) in addition to the answers to questions being noted.

Interviews will require between 60 and 90 minutes, depending on the knowledge of the stakeholder. But potential interviewees need to be made aware that it will not be done on the run. The minimum necessary findings will be produced as answers to the battery of 18 Lickert-scaled questions, as these can feed into comparative analysis (a) across stakeholders within cases, (b) between stakeholder and researcher assessments, and (c) across cases.

Further details may be elicited in conversation, or in a subsequent follow-up interview with the same stakeholder. Guidance on these questions shall be provided.

Depending on the stakeholders interviewed, the script/interview guide may need to be modified.



CHAPTER 6

ANALYSIS OF INTERVIEWS



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Step 6 – Analysis of Interviews

6.1 Transformative Capacity Assessment

To provide a measure of interviewees' assessment of transformative capacity, answers to the 18 Lickert-scale questions on transformative capacity dimensions will be analysed. Answers can be analysed between stakeholders, to provide either a cumulative measure or to identify differences between assessments and provide a basis to analyse reasons for these variable assessments. The same may be conducted between the answers of stakeholders and the researchers' own assessments.

Further analysis can be achieved across regions to identify similarities and differences across cases, and to explain the possible reasons for these (see Figure 1).



Figure 1 – Sample Transformative Capacity Assessment

Source: Wolfram, Marc. 2019. "Assessing Transformative Capacity for Sustainable Urban Regeneration: a Comparative Study of Three South Korean Cities." *Ambio* 48 (5): 478– 493. doi:10.1007/s13280-018-1111-2.

The above diagram illustrates an "aggregated differential assessment of urban transformative capacity components for sustainable urban regeneration in Changwon and Gwangju" comparing stakeholder and researcher assessments across two urban regions. The scale ranges from 1 (very weak) to 5 (very strong). In the case of Changwon, stakeholders overestimate all but one of the dimensions of transformative capacity by comparison to the researchers. The reasons for this difference can be clarified through qualitative analysis of the interviews and comparison with state-of-the-art analysis of the case. In Gwangju, stakeholders tended to overestimate their capacity in many areas, but underestimated their capacity in key governance variables (C1.3, C2, C3.1) as well as the prevalence of social learning (C8) and working across agency levels (C9). These findings point to gaps in transformative capacity that could



be addressed by system actors, as well as strengths, of which system actors may hitherto not have been aware.

6.2 Qualitative Assessment

Qualitative assessment should be oriented towards identifying reasons for the interviewees assessment of the measures provided. This may include providing details on specific instances or making reference to processes involved in developing a participative *Leitbild* for the region or involving community actors in decision-making processes, for instance.

Although the SETS component is theory-driven, oriented towards the assessment of Transformative Capacity, qualitative assessment provides crucial background information as well as the possibility of discovering issues that might not otherwise come to the fore. These should be interviewee-driven.

6.3 Data Analysis

The interviews will use a mix of quantitative and qualitative indicators to assess Transformative Capacity.

In the first instance, a subjective assessment of the extent to which these capacities (suitably operationalised into concrete indicators) are present, on a scale of 1–5. This scale can correspond to a simple “very weak → very strong” assessment, or can apply the capacity assessment scale advocated by the UNDP, ranging from “no evidence of relevant capacity → fully developed capacity”.³

This can be supplemented by eliciting the reasons for the rating given and pertinent examples, which adds valuable detail and substantiation of points made (either by interviewees or in subsequent analysis). Interview questionnaires shall be prepared, with boxes for notation of quantitative indicators and comments, the interviews should be recorded and transcribed, indicators can be entered into MaxQDA or an Excel codebook (which will be prepared along with the interview schedule).

6.4 Co-creation Workshops

Data from the Transformative Capacity assessment semi-structured interviews will provide a basis for inputs into a workshop in each region, where gaps between

³ UNDP. 2008. Capacity Assessment Methodology: User’s Guide. Capacity Development Group Bureau for Development Policy November 2008. Accessed online: www.undp.org/content/dam/aplaws/publication/en/publications/capacity-development/undp-capacity-assessment-methodology/UNDP-Capacity-Assessment-Users-Guide.pdf



researchers' analysis and the stakeholders' perspectives will be addressed, and could become an input for local agency. These will provide a basis for a SETS-based assessment and policy recommendations for that region.



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CHAPTER 7

WRITE-UP FOR REPORT



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Step 7 – Write-up for Report

7.1 Guidance, Training, and Template

Preliminary analysis of the data collected through interviews should be conducted by research partners. Further guidance and a report template, along with training in the updated and tested questionnaires will be provided before research begins in September 2021. Analysis will be performed with MAXQDA.



ANNEXES

I. INTERVIEW QUESTIONNAIRE

II. KEY PAPERS



Annex I – Interview Questionnaire

The Interview Questionnaire template is available in D2.2: Collection of research protocols, guidelines, and data management tools.



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Annex II – Key Papers

I. Transformative Capacity

The methodology and assessment tool operationalises the Transformative Capacity framework developed by Marc Wolfram in the following papers and journal special issue.

Wolfram, Marc. 2016. “Conceptualizing Urban Transformative Capacity.” *Cities* 51. Elsevier B.V.: 121–30. doi:10.1016/j.cities.2015.11.011.

Wolfram, Marc. 2019. “Assessing Transformative Capacity for Sustainable Urban Regeneration: a Comparative Study of Three South Korean Cities.” *Ambio*. Springer Netherlands, 1–16. doi:10.1007/s13280-018-1111-2.

Wolfram, Marc, Sara Borgström, and Megan Farrelly. 2019. “Urban Transformative Capacity: From Concept to Practice.” *Ambio*, March. Springer Netherlands, 1–12. doi:10.1007/s13280-019-01169-y.

Special Issue: Urban transformative capacity: From concept to practice, *Ambio*, Volume 48, issue 5, May 2019 (Issue editors: Marc Wolfram, Sara Borgström, Megan Farrelly)

II. Stakeholders and Stakeholder Roles in System Change

The methodological approach to identification and selection of stakeholders and their roles in system change has been developed from the following research papers.

Bergek, Anna. 2019. “Technological Innovation Systems: A Review of Recent Findings and Suggestions for Future Research.” In *Handbook of Sustainable Innovation*, 200–218. Edward Elgar Publishing. doi:10.4337/9781788112574.00019.

de Haan, Fjalar J, and Jan Rotmans. 2018. “A Proposed Theoretical Framework for Actors in Transformative Change.” *Technological Forecasting & Social Change* 128 (March). Elsevier: 275–86. doi:10.1016/j.techfore.2017.12.017.

Goodman J., Korsunova A., Halme M. Our collaborative future: activities and roles of stakeholders in sustainability-oriented innovation: stakeholder activities and roles in sustainability-oriented innovation. *Bus. Strategy Environ.* 2017; 26: 731–753. doi: 10.1002/bse.1941.



- Kanda, W., Kuisma M. Kivimaa, P., Hjelm O. 2002. Conceptualising the systemic activities of intermediaries in sustainability transitions. *Environmental Innovation and Societal Transitions* 36. DOI: 10.1016/j.eist.2020.01.002
- Kivimaa, Paula, Wouter Boon, Sampsa Hyysalo, and Laurens Klerkx. 2019. "Towards a Typology of Intermediaries in Sustainability Transitions_ a Systematic Review and a Research Agenda." *Research Policy* 48 (4). Elsevier: 1062–75. doi:10.1016/j.respol.2018.10.006.
- Kivimaa, Paula, Sampsa Hyysalo, Wouter Boon, Laurens Klerkx, Mari Martiskainen, and Johan Schot. 2019. "Passing the Baton: How Intermediaries Advance Sustainability Transitions in Different Phases." *Environmental Innovation and Societal Transitions* 31 (June). Elsevier: 110–25. doi:10.1016/j.eist.2019.01.001.
- Lyon, Christopher, Dana Cordell, Brent Jacobs, Julia Martin-Ortega, Rachel Marshall, Miller Alonso Camargo-Valero, and Erin Sherry. 2020. "Five Pillars for Stakeholder Analyses in Sustainability Transformations: the Global Case of Phosphorus." *Environmental Science and Policy* 107 (May): 80–89. doi:10.1016/j.envsci.2020.02.019.
- Stegmaier, P., Kuhlmann, S., & Visser, V.R. 2014. The Discontinuation of Socio-Technical Systems as a Governance Problem. In, J. Edler & S Borrás (eds), *The Governance of Socio-Technical Systems*. Edward Elgar.
- Suljada, T., Bößner, S., & Spijker, E. 2016. D6.1 Stakeholder Mapping. Report of the "Transitions pathways and risk analysis for climate change mitigation and adaptation strategies (TRANSRisk)" EU H2020 project.





ENTRANCES

ENergy TRAnSitions from Coal and carbon: Effects on Societies



SOCIO-POLITICAL COMPONENT:

METHODOLOGICAL GUIDE FOR TEXT ANALYSIS

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CHAPTER 1

INTRODUCTION

Chapter 1 – Introduction

This methodological guide provides instructions on how to implement the text analysis methodology for the socio-political component in the ENTRANCES project.

Texts will be analysed, which have been issued by various stakeholders, representing in first place organisations but also including influential individuals. These stakeholders differ in their position and positioning towards coal phase out and decarbonisation.

Purpose of the method: the socio-political component focuses on the following areas of inquiry:

1. exploring the ongoing and emerging social and political conflicts in the "local field of power"
2. studying the political effects of decarbonisation
3. studying the impacts on political narratives of the phase-out of coalmines, of the closure of carbon intensive industrial companies or of the decarbonisation of industrial processes.

The main sets of research questions which guide the analytical work are:

1. How do the different identified stakeholders form constituencies and how it is reflected in the local field of power? Who and how shapes/controls political conflicts, strategies and outcomes in the decarbonisation processes?
2. How do design constituencies (those who impose the changes) and impact constituencies (those who either cope or resist) understand benefits and losses from the decarbonisation process and operationalise them? How do they develop their narratives of decarbonisation at the regional/national level?
3. How is the politics of decarbonisation influenced (positively or negatively) by the constituencies and their narratives?

For this study, the socio-political component leaders have identified six factors that may influence decarbonisation in its socio-political context. These need to be tested with the help of the text analysis method:

1. Exclusion: form access to benefits of decarbonisation
2. Uneven Incorporation: lack of space for the carbon industries
3. Polarisation: stigmatization vs. idea of progress
4. Segregation: "de-facto" barriers to access decarbonisation advantages
5. Centralisation: higher regional dependence on the centre
6. Countersignification: claim for a just transition
7. Counterdelegation: negotiating clean coal technology
8. Antisignification: rejecting and denial of decarbonisation

The detailed descriptions of the factors are available and need to be checked in the ENTRANCES Deliverable 1.2 Report on Multidimensional Key Factors, Annex 3, Socio-political Component, Short Report on Key Factors, Dynamics and Patterns.

Expectations towards partners



We briefly summarise the expectations for implementation of the text analysis method towards ENTRANCES partners.

- Perform the stakeholder identification through the stakeholder grid (excel file), which was made available on 8 April.⁴
- Translation and operationalisation of key search words and (search terms) according to local discourses and languages
- At least 50 documents searched and identified, including strategy/ies (e.g. on coal phase out, innovation & economic development), newspaper articles, articles and statements of interest organisation), and social media for the case study region identified. Documents must comprise the whole spectrum of identified stakeholders.
- At least 50 documents coded (deductive coding) and analysed in local language; data stored
- Summary report in English language

Timing of implementation of the method

The method will be implemented in May – September 2021.

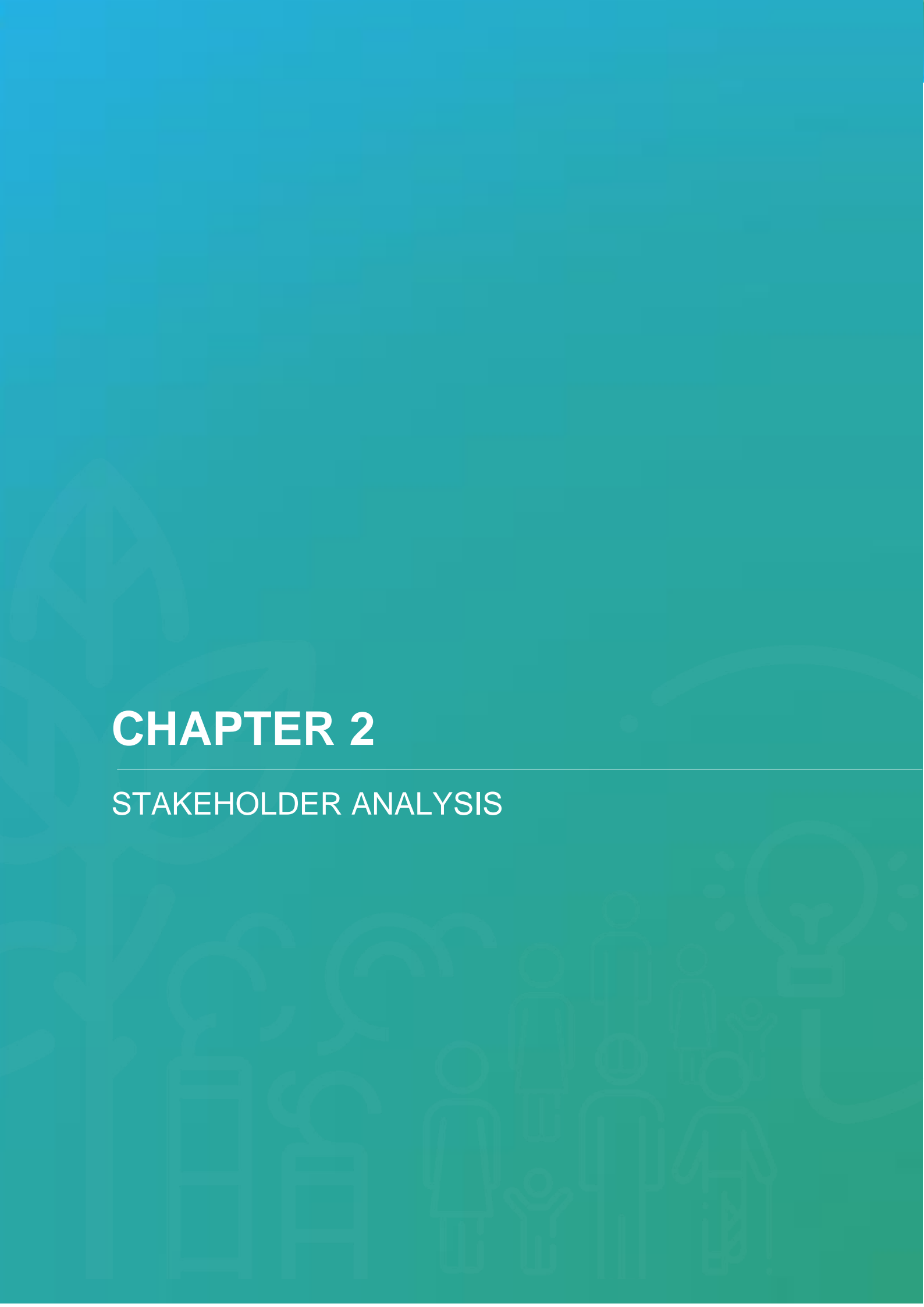
Unit of analysis

The unit of analysis for the text research method is the Political Administrative Region (PAR) of the respective case study. Stakeholders and texts relate to this broader territorial frame, including the Coal and Carbon Territory (CCT).

⁴ See ENTRANCES dropbox account – WP2 – T2.2 – stakeholder collection process

CHAPTER 2

STAKEHOLDER ANALYSIS



Chapter 2 – Stakeholder analysis

A stakeholder mapping is required in order to identify which groups are active in the territory. A stakeholder grid (excel template) has been made available at the beginning of April 2021 to ENTRANCES partners together with the state of the art analysis template for case studies. The grid serves to collect and categorise stakeholders. The following categories with particular importance for the socio-political component have been included in the grid:

- Level of formality: formal meaning whether the organisation is registered, and whether a legal basis for the organisation is available. Informal: non-registered interest grouping, group of citizens without registered NGO status.
- Stakes and/or strategic goals of organisations and individuals: a detailed range of 27 stake attributes has been developed in the grid, including climate, local ecology, etc.
- Degree of affectedness by coal phase-out and decarbonisation: Primary Stakeholders have a direct interest in the decarbonisation, either because they depend on it for their livelihoods or they are directly involved in the process in some way. Secondary stakeholders are those with a more indirect interest, such as those involved in institutions or agencies concerned with managing decarbonisation or those who may be affected. Not affected: some stakeholders (e.g. media) may not be affected by decarbonisation one way or another.
- Power of each stakeholder requires assessing, where current and potential power lie in relation to system change. For this category 10 attributes have been specified, e.g. economic/market power, knowledge, discursive, etc.

Based on the stakeholders' identification, combined with text analyses, we define (at the end), three main constituencies:

- Imposing constituencies: stakeholders imposing change (e.g. local government, political parties, NGOs)
- Coping Constituencies: stakeholders coping with change (e.g., Emerging business profiting from decarbonisation, carbon companies)
- Resisting Constituencies: stakeholders resisting change (e.g., Trade Unions, political parties).

Governance and administrative set-up of case study region

Complementary to the stakeholder analysis, information on the administrative and governance set-up of each case study is collected through the state of the art analysis template for case studies. It is investigated whether there are centrally appointed or regionally elected representatives, and what their role is (strong versus weak). Furthermore, partners describe how important the power of the regional government is (if there is one), whether it is a centralised state with most power at the national level or a federalised state with strong regional governments (e.g., legislative power, system of election of representatives vs. appointments). Regarding finances, we analyse who is having the budget authority, and whether the region impose taxes and to which extent. Also, we investigate how taxes are distributed between the central and regional levels, what kind and sources of investments are

available for the decarbonisation processes and who makes decisions on the allocations and targeting (e.g., state budget, European Funds). Finally, information is collected on who is leading decarbonisation, and who sets up agenda, and strategies and plans.

CHAPTER 3

SOURCE SELECTION FOR TEXT ANALYSIS

Chapter 3 – Source selection for text analysis

In the next step in the implementation of text analysis research, the sources for texts are suggested. We investigate 5 levels of sources in the following hierarchy:

1. Strategies and official documents, which may include government or EC plans and strategies, work programmes, innovation & economic development plans, smart specialisation regional development strategies - RIS3, coal phase out plans, action plans for decarbonisation, foresight studies (e.g. on coal & carbon sector, regional development).
2. Programmes of the political parties, policy papers and statements of interest organisations, NGO's, and Trade Union.
3. The media will be a key source of texts to be found; these may include regional and national newspapers, internet based e-papers. We suppose that in terms of number of texts, this source will be the most important one for case studies.
4. Informal statements, postings (e.g. of informal groups, NGOs in the fields of gender, youth, care, migration, environment, etc – if active in region). This source may be important for countries with strong state control on media. Issues that may be covered are populism, conspiracy theories and hoaxes used in the policy discourse.
5. Social Media: we suggest focusing on Facebook, microblogs and forums provided they fulfil the above mentioned criteria of reach/influence/impact. These FB sites/forums/microblogs could be hosted by NGOs, political parties, companies or research institutes.

Database for newspaper search

In many countries there are nationally searchable media databases available which can be used for identifying relevant articles. These databases may, however, require payment, they may be behind paywalls. Possibly they are accessible through your institution, e.g. university libraries, some universities or bigger research organisation may have paid access for management and/or researchers. Alternatively, if no media database is available, internet search engines will be the primary source of data.

Social media should be searched according to stakeholders identified via the stakeholder grid.

Relevant texts will be identified by searching with the help of key words: These search words should be operationalised according to the country's discourse on decarbonisation and language. Key words should be applied in two tiers. First, select the articles that are thematising particular case study How to find relevant texts will be in discretion of individual teams, however, the suggestion is that the name of the region or of the specific case study problem is given in combination of the words such a “decarbonisation” or “transformation” and similar.

Relevant documents may be also searched in the governmental portals, or specifically at the web pages of important NGOs, that have dealt with the issue (e.g. Greenpeace). We recommend here some degree of researchers' creativity to identify relevant texts.

For example, in the Slovak case study of decarbonisation in the region called Horna Nitra, very well works key words given to Google machine: <Horna Nitra transformation>

Important note: during the text analysis we are performing the stakeholders (positions') analysis, therefore it is important that whole stakeholders' spectrum is represented in selected 50 texts.

CHAPTER 4

TEXT SEARCH AND TEXT CODING

Chapter 4 – Text search and text coding

We recall that a minimum of 50 texts need to be searched and analysed for each ENTRANCES case study. We have outlined in the chapter above the hierarchy of text search, with the starting point of strategy documents at the regional or national level, which should be checked first. This should be followed by party programmes and position papers, and then by newspapers, whereby both national and regional media should be considered if both are available. Finally, informal statements and social media should be consulted, as mentioned above. It is important that the whole spectrum of stakeholders is represented in the selected texts.

We work here with deductive coding. It means that we start with a predefined set of codes, and then assign those codes to the new qualitative data from texts. These codes come from our previous research in WP1 and the factors identified, or we might already know what themes we are interested in analysing. Deductive coding is also called concept-driven coding.

Categorise your codes with coding frames

A coding frame represents the organisational structure of the themes.

For example, text in newspapers written by the representative of the Mining Trade Unions is thematising dismissing workers and unemployment in decarbonisation region.

We select excerpts from the article to which we assign the codes “Employment”, the assessment code “Disadvantaged” and the speaker codes “Male” and “Big Business”. (Please find the full coding grid in in D2.2: Collection of research protocols, guidelines, and data management tools.)

Table 1: Example for Coding Grid

Factor	Code	Subcodes
Exclusion: from access to benefits of decarbonisation	Employment opportunities	<i>Employment</i>
		Male dominated industry
		Female dominated industry
Assessment Codes	<i>Positive development</i>	
	<i>Negative development</i>	
	<i>Advantaged</i>	
	<i>Disadvantaged</i>	
Speaker	Gender	Female
		Male

Time Frame for text searches

We study the current period, in particular the last 5-10 years and identify in which phase of transition the discussion is, e.g.

- initial phase of discussing alternatives,
- in the phase of developing action plans,
- post decarbonisation phase

The exact time period should be decided upon by individual teams according to the context of the case study. It will refer to the peak of the debate, maybe there is a parabola visible in the surge of media articles affiliated with decision making processes, e.g. adoption of action plans for decarbonisation, mine closure decisions. Discussions also shift, for example in Upper Nitra the decision was already made to close the mines and it is taken for granted. Nowadays, discussions revolve around how to handle the consequences.

Interviews

An additional source for texts can be in-depth interviews. In cases where narratives are not so easily understandable, text search may be combined with interviews for deepening the information. Key informers could be interviewed, and interview transcripts used as supplementary source for text analysis. ENTRANCES partners should decide for themselves, whether this additional source is required.

Trade Unions, for example, are usually very clear about their goals in their position papers and statements. The analysis of those statements could be coupled with interviews with key labour leaders. Informal groups, such as Fridays for Future, might only have posts or pose their demands in media, and may be more difficult to identify.

CHAPTER 5

EXPECTED OUTCOME & ANALYSIS

Chapter 5 – Expected Outcome & Analysis

Number of Articles

A number of at least 50 substantial articles, programmes or statements have to be identified, coded and used for the analysis.

Language and translation

The analysis may be conducted in local language or directly in English. A final draft report/synthesis needs to be provided in English.

Software

We recommend using a software package for the analysis of texts, such as MAXQDA or Atlas.ti. This will allow the project to be in line with FAIR principles (Findability, Accessibility, Interoperability and Reusability) to which ENTRANCES committed, and facilitate exchange of data and comparability of results over the case studies. Also, it will give a robust methodology background for a possible publication of results in scientific journals. Furthermore, it can also be used for analysis of in-depth interviews to be performed in the frame of socio-technical and ecological components.

Costs of the software package can be booked on the project, and taken from savings on travel cost.

Analysis

For the analysis of texts, sentences or paragraph or entire page may be selected. This will depend on size of text and substance.

Constituencies

In the basic sense the term “constituency” is commonly used to refer to an electoral district, but it can also refer to the body of eligible voters or all the residents of a represented area. In the broader social perspective, which is relevant for us here, a constituency is the group of people whose interests are represented in public discourse/politics. Based on the empirical research, we categorise main stakeholder groups and define and analyse constituencies in the decarbonisation processes.⁵ In accord with the technological drama framework, we would operate here with the design constituencies (those who impose the changes) and impact constituencies (those who either are coping or resist). Each case study therefore describes and analyses their policy narratives and policy strategies vis-à-vis decarbonisation in the territory by using a grid of Imposing, Coping and Resisting Constituencies:

- Imposing constituencies: stakeholders imposing change (e.g. local government, political parties, NGOs)

⁵ See Pfaffenberger, (1992).

- Coping constituencies: stakeholders coping with change (e.g. Emerging business profiting from decarbonisation, carbon companies)
- Resisting Constituencies: stakeholders resisting change (e.g. Trade Unions, political parties).

Text analysis should cover following issues:

- Where is the narrative driven from? National or Regional level? From media or social networks?
- Stakeholders: Who acts? Who responds? Who speaks? How are stakeholders influencing regional discourse and vice versa? What is the position and positioning of stakeholders who speak?
- Gender perspectives in narratives: do stakeholders take a gender perspective? Keep track of metadata, who is speaking – there is a bias of who is speaking. Where do we get information, include diversity and different point of views.
- How are narratives formed by individuals & influencers. Who is speaking is kept track of, as far as possible.

Annex I: Template for case report on text analysis

The template is available in D2.2: Collection of research protocols, guidelines, and data management tools.



ENTRANCES

ENergy TRAnSitions from Coal and carbon: Effects on Societies

Mapping Socio-Cultural Stress at the territorial level

Methodological Guidelines



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Annex 1: Preliminary Information Grid (FG-PIG)

Annex 2: Focus Group Protocol (FG-P)

Annex 3: Final Interpretation Template (FG-FIT)

Introduction

The ENTRANCES project

This document is inserted in the framework of the project Energy TRANSitions from Coal and carbon: Effects on Societies – ENTRANCES, which is a three-year project funded by the European Union's Horizon 2020 research and innovation programme. The project is coordinated by the University of A Coruña and is conducted by a consortium of 14 European partners, including universities, research institutes, networks, and umbrella organisations. ENTRANCES' overall goal is developing a theoretically-based and empirically-grounded understanding of cross-cutting issues related to the societal aspects of the clean energy transition in European coal and carbon-intensive regions and formulating a set of recommendations able to tackle these issues.

To achieve this goal, the project investigates the challenges facing carbon-intensive regions in transition hinging on the idea that the transition to clean energy should not be considered only as a technological change or an industrial shift but also as a complex and multidimensional process, that affects the daily life of local communities. In this regard, the project understands the impacts of the clean energy transition on coal and carbon-intensive regions, either in terms of the potential activation or strengthening of the de-territorialisation process, i.e., the process of progressive weakening of ties between a community and its territory, and conversely as a window of opportunity for triggering their re-territorialisation.

The project will thus develop a set of case studies in 13 coal and carbon-intensive regions in transition. The case studies will be all studied with the same approach by adopting a Multidimensional Analytic Framework, structured into five analytical components: socio-cultural, socio-psychological, socio-political, socio-economic, and socio-ecological & technical components.

The methodological guidelines presented in this document are referred only to the socio-cultural component, where other guidelines have been developed for the other components.

The guidelines

The socio-cultural aspects of the ENTRANCES case studies will be investigated primarily through the conduction in each region of a focus group on “Mapping socio-cultural stress at the territorial level”. As the title states, the focus group is aimed at developing a map of the stress and related strains ongoing at the territorial level. The focus group will adopt a participatory approach that is described step by step in the present document.

As the methodology is based on the active participation of local key informants, the guidelines have been drafted to be used and accessed both by the project's researchers and by the focus group participants (in case the latter want to deepen in advance what the focus group is about). Further information on the socio-cultural component can be found in D1.2. – Report on Multidimensional Key Factors, which is accessible on the project's website: <https://entrancesproject.eu/>.

SECTION A

Contents and procedures

A.1. Overview

Socio-cultural stress and globalisation

In a globalised age, the traditional forms of territorial organisation are constantly challenged by several societal-induced processes – such as migrations, technological advancement, financial flows, climate change, etc. – that trespass the political and administrative boundaries through which territories are organised and managed. The socio-cultural component of the ENTRANCES project is aimed at mapping whether and in which way the socio-cultural changes associated with globalisation are provoking “stress” in the territorial organisation⁶. We understand stress as any state of pressure that produces “strain situations”, e.g. conflicts, tensions and contradictions of different type inherent to the territory itself or the territorial management.

While the difficulties to facing the global challenges are widely acknowledged, when it comes to development or strategic plans, the tensions, conflicts and contradiction produced by these changes at the territorial level are rarely taken into consideration, as they do not appear in official data and statistics, even though they are relevant aspects for the success on any intervention that aims to leverage on the active participation of local actors and stakeholders. As the project aspires to inform the Regional and European policy on Coal and Carbon-intensive regions in transition through a set of policy and practical recommendations, the socio-cultural component of the ENTRANCES project is aimed at filling this gap. The stress-strain detected in the territory will be understood as structural limits of the current forms of territorial organisation that, depending on the cases, may require adjustment or even a deep transformation. The analysis of globalisation-induced stress does not aim to cover all the possible forms of stress. Nevertheless, the focus on globalisation ensures to analyse a kind of stress that is expected to be long-lasting and even increase its relevance in the future.

It is worth noticing that, even though part of a research on coal and carbon-intensive regions in transition, the socio-cultural component will not be explicitly focused on the energy transition process (and related challenges), but rather it will analyse other ongoing changes that are affecting the life of the local community, under the assumption that territorial transition should be understood in the broader context of the profound, rapid and pervasive socio-cultural changes associated with globalisation.

Mapping socio-cultural stress

In each of the ENTRANCES case-study regions the project aims at mapping socio-cultural stress in the territories more directly challenged by the ongoing decarbonisation process, which in the project has been conventionally called the Coal and Carbon Territory (CCT)⁷. Through a participatory mapping exercise, the project aims at facilitating the disclosure of the *local knowledge* about the *strain situations* in the CCT, which are considered indicators of socio-cultural stress. The map will reflect a view “from within” about the challenges faced by the CCT, and it will be compared with other sources of available knowledge (data, statistics, previous studies) as well as

⁶ Differently from other theories which interpret socio-cultural stress as the stress at the individual level produced by socio-cultural factors, with Bertrand (1963) we focus on the stress at the level of the social organisation (social structure)

⁷ So for each of the 13 coal and carbon-intensive regions in transition analysed by the ENTRANCES project, a sub-area has been defined as CCT.

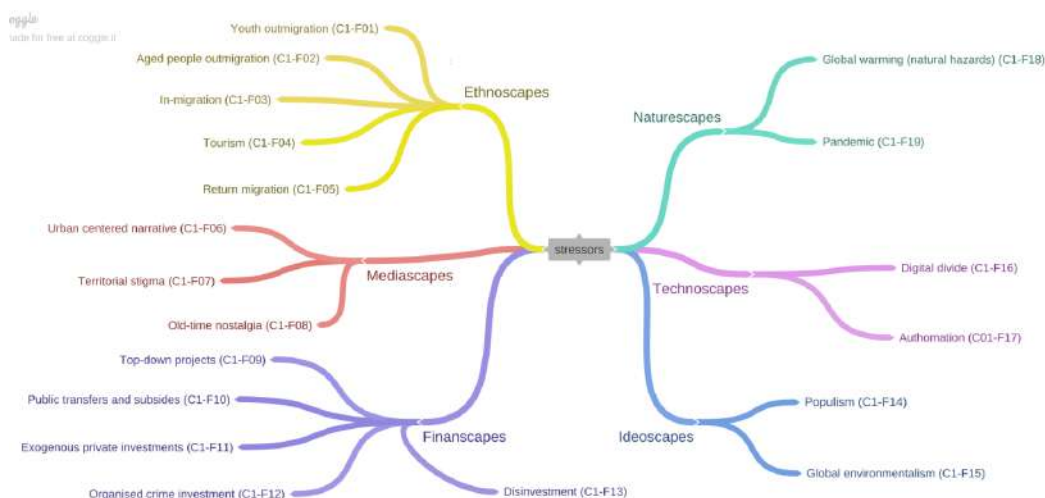
with the other results of the ENTRANCES project. This analysis will be a constitutive part of the set of case studies produced by ENTRANCES.

A.2. Key concepts

Global cultural flows as stress factors

We will analyse six **areas of change** each related to a different type of global cultural flows (see Appadurai, 1990 and 1996): i) Ethnoscape, related to flows of people; ii) Technoscape, related to flows of technologies; iii) Financescape, related to financial flows; iv) Mediascape, related to flows of images and other cultural media; v) Ideoscape, related to flows of ideologies (structured worldviews adopted by organised groups); and vi) Naturescape, related to the flows of non-human elements. For each area, a set of stress factors have been previously identified, where **stress factors** are understood as social processes that have the potential to activate stress in the territorial organisation. Overall, 19 factors will be considered in the analysis. The list of stress factors across the six areas is represented in the picture below, while a description of the individual factors is presented in D1.2. Report on Key Multidimensional Factors.

Figure 2: the socio-cultural stress tree



Stress and strain situations

We understand **stress** as any state of pressure on the social structure that produces **strain situations**, e.g. conflicts, tensions and contradictions of different type related to the territory itself or the territorial management. In other terms, stress is understood as an element inherent to the social structure of the territorial organisation that cannot be observed per se but manifests itself in strains situations (Bertrand, 1963). We can distinguish four different **types of strain situations**: a) endogenous disputes and conflicts, i.e. conflicts within the local community, b) exogenous disputes and conflicts (all the other conflicts), c) impasse or contradictions (incapacity to generate viable responses); d) uncertainty and dependence (dependence from decisions or choices beyond the local community).

Table 2: Strain situations types

A	B	C	D
Endogenous disputes and conflicts	Exogenous disputes and conflicts	(Endogenous) Impasse or contradictions	(Exogenous) Dependence and uncertainty

A.3. Approach

The participatory mapping will be primarily based on the conduction of a **focus group** with local key informants aimed at disclosing their *local knowledge* about the *strain situations* in the CCT.

Observation matrix

The focus group will be based on an *observation matrix* crossing the *six areas of change* and the related *stress factors* with the four *types of strain situations*, with the aim of mapping and describing with concrete factual information the *strain situations* related to the different areas/factors (see table below). The row and the column of the matrix can be considered as the input provided by the researchers, or the open questions that the focus group should answer. The output, i.e. the “strain situations” disclosed by the focus group will be ideally placed in the cells of the table. In this regard, example (1) may indicate conflicts related to return migrant competing with residents in the job market [C1-F05: return migration], while example (2) may indicate a tension due to the digital transition of the CCT depending on tech companies infrastructural investment choices [C1-F16: digital divide].

Table 3: The observation matrix

Area of change	Stress factors	Endo-conflicts	Exo-conflicts	Impasses	Uncertainties
Ethnoscapas	C1-F1 to C1-F5	(1)			
Mediascapas	C1-F6 to C1-F8				
Financescapas	C1-F9 to C1-F13				
Ideoscapas	C1-F14 to C1-F15				
Technoscapas	C1-F16 to C1-F17				(2)
Naturescapas	C1-F18 to C1-F19				

Factors selection and prioritisation

As the number of factors is rather high, the researchers may choose “ex-ante” to exclude some of the *stress factors* if considered not relevant at all in the light of the preliminary information collected through desk research (see Para. 6). For example, if the number of return migrant is very low, the factor “C1-F05-return migration” may be kept out of the analysis. Moreover, the selection of the *stress factors* to be analysed in each *Area of change* will be self-prioritised by the participants, so that only the more relevant issues will be analysed. This means that in each *area of change*, not all the factors will be necessarily analysed. Moreover, the participants will be free to suggest “strain situations” beyond the suggested factors.

Examples and intermediary objects

The identification of the *strain situations* will be facilitated with a set of examples of strain situations related to the factors analysed. These examples, drawn from the literature and desk research, will be part of the *script* of the focus group protocol, and will be used only if the participants need them. To facilitate the disclosure of local knowledge two base-maps will be used as intermediary objects of the group work: a "timeline map" and a "geographical map". The maps will have the double purpose of facilitating the disclosure of the local knowledge by activating memories and images of place and fine-tuning the understanding among the participants through visual representation.

Strain situation description (outcome)

The *strain situations* represent the secondary unit of analysis of the socio-cultural component (the primary unit of analysis is the CCT). The *strain situations* thus should be described according to name, description, impacts on the CCT, gender-related aspects; spatial localisation (if available), time localisation (if available), related stress factor(s), consistency. Consistency will be assessed with this scale: no socio-cultural stress (SCS), episodic SCS, recurrent SCS, and persistent SCS.

A.4. Structure

Articulation in two meetings

In each region two focus group meetings will be organised, each dedicated to three *areas of change*. The two meetings will be developed with a similar structure, and, in an optimal situation, will involve the same participants. When not possible (e.g., for the unavailability of some participants), it is suggested to maximise the number of people participating in both the meetings to ensure a continuity of analysis across the area of change. Both meetings will have a duration of 2.30 hours. The choice of splitting the focus group into two meetings is mainly due to make easier the participation of the local key informants, so it will be ok having only one 5 hours long meeting, in case the research team considers that an advantage (but a consistent break is highly recommended in that case). Financescapes, Technoscapes, and Ideoscapes will be analysed in the first FG meeting (FG1), while Ethnoscapes, Naturescapes and Mediascapes will be analysed in the second one (FG2). The areas of change have been clustered based on the continuity of issues to be discussed. Moreover, we split the two areas with a higher number of factors in the two meetings, i.e. Financescape in FG1 and Ethnoscape in FG2.

Articulation in sessions

Each FG meeting is articulated in three sessions: an introductory session, a mapping session and a final session (see the table below). The meetings will be introduced by a session promoting a common understanding of the participatory mapping exercise to be conducted. The mapping session is composed of three different cycles of mapping (see below). In the final session, the participants will share their views for the next meeting (in FG1) or on the two meetings (FG2).

Table 4: Articulation in sessions of the two FG meetings

Sessions	FG meeting 1 (FG1)	Approx. Duration	FG meeting 2 (FG2)	Approx. Duration
Introductory	Welcome & Introduction	10 m	Welcome	5 m
	Territorial Anamnesis	20 m	Recap of FG1 and intro to FG2	5 m
Mapping	Mapping rules & roles	10 m	Ethnoscape (5)	45 m
	Financescape (5)	40 m	Naturescape (2)	35 m

	Technoscape (2)	30 m	Mediascape (3)	35 m
Final	Ideoscape (2)	30 m	Territorial interpretation	20 m
	Feedback for the next meeting	10 m	Conclusion FG2	5 m

Territorial anamnesis and re-interpretation

In the first meeting, the activities will be opened with a Territorial Anamnesis. Using the two base maps as intermediary objects, the participants will be asked to summarise the main phases and milestones of the local history. The second meeting will be concluded with a final interpretation of the two maps, which, at that stage, will be already filled with the *strain situations* mapped.

Articulation of the cycle of mapping

Each cycle of mapping will be articulated in different operations (see below). The first *area of change* of each meeting (Finance/Ethno-scapes) will have more time as they have more factors.

Table 5: the cycle of mapping

Operations	Description	Duration
Area introduction	Overview of the stress factors and preliminary information collected on the area.	~5 m
Identification	The participants will “name” in written form one or more “strain situations”	~2 m
Discussion	The participants will shortly discuss the strain situation identified. The strain situations will be described according to the research parameters and visualised on the maps.	~ 25-40 m

A.5. Composition and roles

Composition

The focus group will be composed of people with double-status of key informants and inhabitants of the CCT to be mapped. Three categories of key informants will be considered.

- Community leaders*, including representatives of the local authorities, leaders of the local CSOs (e.g. sports club, religious leaders, youth groups leaders, grassroots organisations etc.), leader of the business community, and informal leaders.
- Knowledge keepers*, people who according to their professions know the strain situations of the territory, e.g. intermediary organisation, trade unions, social services, tourism managers or operators, school managers, local doctors, local police officers).
- Memory keepers*, people endowed with a good historical memory of place (e.g. elders, responsible for archives, members of families deeply rooted in the community, local veterans, former mayors, etc.).

The three categories are not mutually exclusive, as a participant may fall in more than one category. The focus group will also be participated by the ENTRANCES researchers that will have the role to moderate and facilitate the focus group. We will refer to them collectively as the *FG accompanying team*.

Roles

- FG Participants*. They are the protagonist of the focus group. Their role is to disclose their knowledge of the strain situation present in the CCT and to assess the impacts and the consistency of the strain situations identified.

- b) *FG moderator*. The FG will be accompanied by a methodologically trained moderator. The moderator will conduct the discussion with flexibility but also ensuring that the times and the rules of the FG are respected. Particular attention will be paid to ensure that all the participants will have enough room to express their knowledge, thus avoiding forms of epistemic injustice, such as exclusions or silencing of some participants based on local social status or gender. The moderator will also ensure that the researchers involved do not impose their view on the participants. In this regard, albeit being a researcher him/herself the moderator, will play a role above the parties. The moderator will introduce and conclude the meeting.
- c) *FG facilitator(s)*. The FG will be accompanied by a methodologically trained facilitator. The facilitator will have the role to ensure that the expected outcomes of the focus group are achieved. The FG facilitator may also be thought of as a participant-researcher, whose role is on one side using previous research results for facilitating the disclosure of the local knowledge, and, on the other side, to be sure that the local knowledge disclosed fits with the research needs. In this regard, the FG facilitator will:
- introduce the *areas of change*
 - suggest examples of strain situations (only if needed)
 - record the *strain situations* in the two “base maps”
 - be sure that all the expected outcomes are discussed and agreed upon.
- As the role of facilitators requires a lot of preparation is possible to have different facilitators for different *areas of change*.
- d) *FG assistant*. It is recommended to have an assistant taking notes during the meetings. Moreover, the assistant can take charge of the technical/logistical aspects (e.g. PPT presentations, coffee break, etc.).

A.6. Phases, Steps and Tools

Phases and steps

The research module is articulated in three subsequent phases for a total of eight steps. For each step, one or more actions should be carried out for the implementation of the research module. These actions are described in detail in the session B of the guidelines.

Table 6: phases and steps of the research module

Phase	Step	Description	Action	Deadlines
Preliminary Information	1. Desk research	Gather background information on the 19 factors and the six areas of change with desk research. The information will be collected and summarised through a Preliminary Information Grid (FG-PIG).	B.1	LP1: May 2021
	2. Contact point	Collection of missing information through the support of the contact person identified in each of the case study regions.		
	3. Other info	The information from other sources (e.g. text research, direct observation etc.) can be registered by using the preliminary information grid also after that the desk research phase is completed.		LP2: September 2021
Participatory	4. FG Preparation	The preparation of the focus groups will include the following activities: a) identification and recruitment of the participants; b)	B.2	LP3: January
			B.3	

		preparation of materials and rehearsing; c) logistical aspects.	B.4	2022
	5. FG Implementation	The focus groups will be conducted based on the Focus Group Protocol (FG-P). The protocol will go through roles and rules of the meeting and provide a script of what happens in the introductory, mapping and final phases of the two meetings.	B.5	
			B.6	
			B.7	
B.8				
	6. FG Results notes	After the conduction of the focus groups, the results will be registered and noted following the indication contained in these guidelines.	B.10	
Follow-up research	7. Data integration	The results of the focus groups will be integrated with all the other data produced by the other methods of the case study.	B.11	LP4: April 2022
	8 Interpretation and case study report	The results will be interpreted with the help of a Final Interpretation Template (FG-FIT) and inserted as a chapter of the case studies reports (D3.1.- D3.7 and D4.1 - D4.6).	B.12	

Tools & materials

Besides these guidelines, the following tools will be necessary for the conduction of the Focus Group

- Preliminary Information Grid – FG-PIG (phase 1)
- Focus Group Protocol – FG-P (phase 2)
- Final Interpretation Template – FG-FIT (phase 3)

Moreover, the following materials will be made available for the partners after the pre-test

- Recruiting letter facsimile
- Base maps facsimile
- PPT presentation facsimile
- FG agenda facsimile
- Participant dashboard

SECTION B

The implementation process

B.1. Gathering preliminary information

The role of preliminary information

The first phase for Mapping Socio-Cultural Stress in the Territorial Milieu is dedicated to providing preliminary information aimed at understanding how the 6 areas of change and the 19 stress factors are characterised in the context of the different Coal and Carbon Territories (CCTs) under examination. The 19 stress factors can manifest in many different ways in the 13 coal and carbon-intensive regions of the research, as they all have different geographical, historical and socio-economic features. Even, some of the factors can result not relevant for the analysis in some of the regions. The aims of the collection of preliminary information are:

- Providing the researchers with basic knowledge on the CCT useful for interacting with the local key informants during the focus group
- Kick-starting the identification of the *strain situations* during the mapping session of the focus group
- Provide in advance information on whether some of the stress factors should be kept out of the participatory mapping exercise.

It is worth noticing that this phase is not meant to collect information on the strain situations in the territory, but only to better understand whether and how the change associated with the “stress factors” are present in the CCT. For example, considering the factor “return migration” (C1-F05), it would be important to get some information on whether the CCT is affected by return migration, and how this phenomenon is characterised (e.g. number of return migrants, prevalent age and gender of returnees, their former emigration country, etc.). The preliminary information is not aimed at assessing if this phenomenon is causing strains in the CCT (e.g. conflicts related to return migrant competing with residents in the job market). Finally, it is also worth noticing that the preliminary information collected on the 19 *stress factors* will not be directly compared across cases, as the comparisons of the socio-cultural component will be based rather on the *stress-strains* identified in the different cases.

The preliminary information grid (PIG)

A *Preliminary Information Grid* (PIG) has been developed as a supporting tool for this phase of the research module. The PIG, which is annexed to these methodological guidelines, is organised into 15 items reflecting the six *areas of change* and the 19 *stress factors*. The PIG illustrates the kind of information to be collected in advance, but the indication provided should be understood with flexibility as the available information may vary across cases, and, in any case, it will have a preliminary scope, rather than an analytic or comparative one. The information will be collected through the following methods.

- Desk research: It is the privileged method to be used in this phase. Different types of sources can be used to fill the PIG: policy documents, reports, official statistics, previous studies, local authorities websites, local newspapers.
- Integrative interviews: all the information that cannot be collected with desk research can be collected with an interview with our case contact point(s).
- Other methods: all the preliminary information “accidentally” collected with the methods foreseen by other research components (e.g., text research, survey, in-depth interviews, etc.) can be added to the grid, which can also be understood as a “notepad” for preparing the focus group.

B.2. Recruiting the participants

Number and composition

The focus group will be composed of 8 to 10 local key informants, where “local” means someone either working or living in the CCT. The FG will be composed as follows:

- *Categories*: at least 3 *community leaders*, 3 *knowledge keepers* and 2 *memory keepers* should be included in the FG (see Para. A.5, please note that a participant may fall in more than one category).
- *Gender*: the FG should be gender-balanced, i.e., at least 4 men and 4 women should be included.
- *Age and ethnicity*: as far as possible, considering that priority is given to “categories” and “gender” criteria, different age classes (<35; <65; 65+), and ethnic minorities (if it is the case) should be included.

Identification procedure

The identification of the potential participants may be articulated in the following subsequent steps.

- A list of candidates will be done through stakeholder analysis⁸ and ad-hoc internet research.
- This list can be checked and integrated with a conversation with the case contact person.
- Other candidates can be identified during the recruitment with a snowball process, as the key informants contacted may be asked to nominate people they think would make good participants.

It is worth underlining that for recruiting the right people, leveraging on the local key informants (2nd and 3rd steps) will be a key. This may be particularly useful for identifying the “memory keepers” that may be more difficult to identify otherwise.

Recruitment procedure

- The recruitment of participants should start as soon as possible as it can take a long time.
- The potential participants identified are contacted by email, containing a) the institutional reference of the project, b) the purpose of the FG, c) why is important to participate; d) the actual invitation to participate; e) basic info on the FG implementation; f) contacts. A “recruiting letter facsimile” will be made available to the partners who will adapt it to their case(s).
- If the answer is yes, the contacted person is registered among the participants. If the contacted person is potentially interested but has not accepted yet, it is suggested to talk to him/her in advance to better explain the FG. If the answer is no, the contacted person is erased from the recruiting list. In any case, it is possible to ask the contacted person to suggest others to be involved in the FG.
- A thank you/confirmation letter is sent when the contacted person accepts to participate.
- A reminder with practical information on how to reach the meeting is sent two days in advance.

⁸Please, remember that the stakeholders analysis includes stakeholders at the level of the Political Administrative Region (PAR), while we look only for key informants working or living in the CCT.

Commitment and motivation

The participants are requested to participate in two meetings in presence of 2.5 hours each. The participation is based on the interest of the participants, so the stakes of the focus group, particularly those of taking into due consideration the local perspectives about impacts of the current globalisation trends, should be highlighted in the recruitment. Even though the project does not foresee rewards for the participants, it is recommended to include in the meeting program some refreshments for welcoming or saying goodbye to the participants.

B.3. Preparing materials and rehearsing

Slides presentations

A set of slides presentations for different phases of the FG will be provided as a facsimile. These presentations include:

- a) Welcome and introduction
- b) Presentation of the mapping exercise
- c) Presentation of each of the six areas of change
- d) Presentation of the results of the first meeting (to be prepared before the second meeting).

For the presentation in point a) and b) the facsimile will be almost ready to be used. The only preparatory work would be related to translating the PPT in the language used in the FG and adjusting it to the location of the FG. The presentations of point c) will be used to trigger the discussion at the beginning of each mapping cycle. In the preparatory work, these presentations will be integrated with some highlights coming from the preliminary information collected in the FG-PIG. The presentation of point d) should be prepared as well based on the results of the first FG.

Base maps

Two base maps should be prepared in advance based on facsimiles:

- The *geographical base map*, i.e. an almost empty map of the CCT with only some basic reference (e.g. main towns). The map will be drafted with the Datawrapper website
- A *timeline base map*, i.e. a line of time of the last decades (after WWII) with marked only some key reference dates identified in the state-of-the-art analysis (see the Para. “CCT historical background” in the template for the state-of-the-art analysis)

Both maps need to be printed at least in A1 format (A0 format will suit fine as well).

Privacy documents and other materials

Other materials should be translated in the language of the FG, including: a) privacy-related documents, b) the participant dashboard (see Para B.4), c) informative materials on the project and on the case study (if it is the case), d) the agenda of the focus group meetings.

Covid-19 security protocol

Based on the local rules, a security protocol should be developed in each of the case studies. The protocol should be prepared in advance and, if needed, information about the protocol should be shared with the participants in advance.

Rehearsal session

A few days before the first FG meeting it is highly recommended to organise a rehearsal session in the presence of all the *accompanying team*. If possible, the rehearsal session should be organised in the location of the FG, or, in any case, it is suggested to conduct it in a place similar to that of the FG. It is also recommended that all the FG materials are used at the rehearsal. The rehearsal session should simulate, as far as possible, the conduction of the FG, including the presentations. The rehearsal is a key activity, as the success of the FG will depend also on the capacity of the *accompanying team* to be stick to timing and to produce effective communication with the participants. A member of the research team who is not involved in the FG team may participate in the rehearsal and provide “external” feedback.

B.4. Preparing the logistical aspects

Focus Group Site

An adequate FG site should be identified and booked. The site should be big enough to allow 10 - 13 people to seat around the same table, also considering the distances required by covid-19 protocols. The FG site should be equipped with Video projectors, and it should have the possibility to hang the two base maps or to place them at the centre of the table (depending on the room). The room should have space for the welcome coffee and the final refreshment. It is also possible to carry out the FG outdoor. In this case, the PPT presentations are replaced with spoken presentations.

Coffee & refreshment

It is recommended to include a welcome coffee and a final refreshment in the FG agenda. These aspects must be prepared in advance too.

List of materials

Please check that all the materials are ready for the meeting. The full list of materials includes:

- Welcome PPT presentation
- Meeting PPT presentation
- Area of change short-presentations (x 6)
- Video projector
- Projecting screen
- Computer
- Laptop for the note taker
- Audio Recording device (with battery)
- Privacy consent forms (x 10)
- Participant dashboard (x 15)
- Printed agenda FG1 (x 15)
- Printed agenda FG2 (x 15)
- Big post-it of six colours (yellow, orange, red, blue, green, grey) (x 10)
- Small squared post-it of six colours (yellow, orange, red, blue, green, grey)
- Pens and markers for the participants (x 15)
- Participant identification number
- A4 Paper
- A1 printed geographical base map
- A1 printed timeline base map
- Flipchart (paper) with markers
- Project brochures (x 20)
- Welcome coffee
- Final refreshment
- A printed copy of the FG guidelines
- Printed copies of the FG protocol (x5).

B.5. Recommendation and rules

Respect of time

The golden rule for the success of the focus group is respect for the scheduled times. This means either respect of the time established for sessions and sub-sessions and of the expected time of speech of the individual participants and the facilitator. If times are not respected there is the risk both that some of the participants (generally the more respectful of the rules) will be silenced or that some of the areas of change will not be mapped. Thus, respect of time is a tool for ensuring both epistemic fairness (see below) and the effectiveness of the meetings. Respect for time is the responsibility of the moderator, who should put it at the edge of her/his priorities. At the same time, the moderator can allow for some flexibility if her/he considers that the focus group can benefit from slight changes in the schedule (including extending the duration of the meeting if the participants agree).

Rules of the meeting

The main rules of the meeting are as follows:

- Interventions should not exceed 2 minutes
- Mobile phones should be switched off or on silent mode
- Participants should respect the confidentiality of what will emerge in the discussion
- Participants should speak one at a time
- Each participant will be provided with a tag with a number that s(he) should mention at the beginning of each intervention to allow a correct transcription of the meeting.

Communication with the participants

It is recommended that the moderator and the facilitators adopt direct and simple communication with the participants. It is worth stressing that the 2 minutes rule matter also for them. Long or complex speech of members of the accompanying team may break the rhythm of the meeting and confuse the participants about what is their task.

Indirect interaction

The setting of the FG based on mapping is intended to put all the participants in the same starting position, and favour the cooperation among them through indirect interactions. The interactions will be guided by the "game we are playing", i.e. the mapping exercise, rather than by pre-determined stakes or points to be defended by the participants. This will also provide a good starting point for epistemic fairness.

Epistemic fairness

The focus group will include a diverse set of participants as concerns gender, age, ethnicity, working positions, and roles in the local society. The focus group should ensure that all the voices are taken into account and given enough space. The respect of epistemic fairness is the responsibility of the moderator.

Privacy issues

All the participants will be asked to sign a Consent Form developed based on the ENTRANCES Data Management Plan. It is recommended that the organising partner translate it into the national language. Anonymity and confidentiality will be ensured. Each participant will be assigned a number tag, for allowing its univocal identification in the recordings while keeping anonymity.

B.6. Room-setting and introduction

Room setting

It is suggested that the room is organised taking into account the following “spaces”:

- *Participants’ space*. Each participant should have its working space (the desk space in front of him/her), including these materials: -Participant dashboard; -Post-it blocks (1 for each colour); - a marker; -pen and paper; -a meeting agenda (printed); -the participant identification number.
- *Facilitator’s space*. The facilitator will have control over the whiteboard and the maps, which should be well visible to all the participants. The facilitator’s space includes -the geographical base map; - the timeline base map; -the flipchart (with markers); - the small post-it; -a copy of the FG protocol.
- *Moderator’s space*. It includes: -agenda of the meeting; -watch/chronometer; -pen and papers; - a copy of the FG protocol.
- *Assistant’s space*. Includes: -a laptop (to take notes); -the computer (for projecting PPT presentation); -the audio recording device.

Reception of the participants

It is recommended to give the participants a starting time that is 10 minutes before the actual start of the focus group to allow for complying with the covid-19 protocols, distributing the number tags, filling out the privacy consent forms, taking the welcome coffee, and taking place around the table.

Welcome & introduction

The meeting will be welcomed by the moderator, who, after thanking the participants, will briefly present the ENTRANCES project, and the focus group, including its aims and practical objectives. Moreover, the moderator will introduce the accompanying team, will inform them about duration and confidentiality issues, will recall the rules for the discussion (see below), and allowing participants to introduce themselves.

Territorial anamnesis

Before proceeding to map the strain situations, the participants will be asked to summarise the main steps of the local history related to the area of change being mapped. The moderator will ask a volunteer to start reminding the main phases and milestones of financial investments in the area (during FG1) or the migratory history (during FG2). Other participants may shortly intervene and

supply further information. The facilitator will note the information in the timeline map. If different interpretations arise in the discussion, the facilitator will note both of them on the map.

Introduction to the mapping process

The moderator will give a slide presentation providing information about the mapping process, including the socio-cultural stress tree, information of what a strain situation is, and how they will be mapped. This introduction will also introduce all the materials and objects to be used (i.e. the two base maps, the flipchart, the participant dashboard, etc.).

B.7. Mapping the strain situations

The following operations will be followed for each of the six areas of change across the two Focus Groups.

Short presentation of the area of change

The facilitator will give a 5 minutes presentation about the “area of change” under examination. The presentation will include a fixed part, i.e. similar for all the 13 coal and carbon-intensive regions, and a context tailored part, specific to that region. The fixed part will present the *area of change* and the factors that characterise the area. The context tailored part will present some background information on how the factors are affecting that region, i.e. some highlights from the preliminary information grid.

Identification of the strain situations

In this phase, the participants will “name” in written form on a post-it one or two “strain situations” considered as relevant for that area of change. To facilitate the identification, besides the examples of strain situations provided in the short presentation, the participants will be provided with a “dashboard”, a semi-rigid paper containing the socio-cultural stress tree, and the four types of “strain situations”.

Discussion of the strain situations

A participant will be asked to start reading its strain situation, and the moderator will ask if other participants named the same “strain situation” or a situation that can be associated with it. This will eliminate repetitions. Then the discussion of the strain situation will start. Each strain situation will be described by the proponent, and others will integrate if needed.

Different or divergent views of the participants

On a certain strain situation, participants may have different opinions, e.g. some participant think a “strain situation” identified by another participant is not relevant, or neglect that the situation can be identified as a strain (as for in its view do not fall in one of the four types discussed in Para. A.2). In this case, the Moderator, will lead a short discussion to try to reach a consensus or at least check if the views among the participants are compatible. If he manages to obtain it, the facilitator will record the appropriate response (see below); otherwise, the facilitator will record the different views expressed. It is worth to be stressed that considering the proposed approach, which is not mainly focused on an assessment (but rather on mapping) and in which opinions or stakes are not a substantive part of the discussion, the complete lack of agreement between the participant should be a rare circumstance.

Input from the facilitator and the moderator

If not already mentioned in the discussion, the facilitator will ask quick questions about impacts on the territory; gender-related aspects; spatial localisation, time localisation. Moreover, at the end of the discussion, the moderator will ask the participants to assess the *strain situation's* consistency with the following scale: no SCS (value=N), episodic SCS (value=E), recurrent SCS (value=R), persistent SCS (value=P).

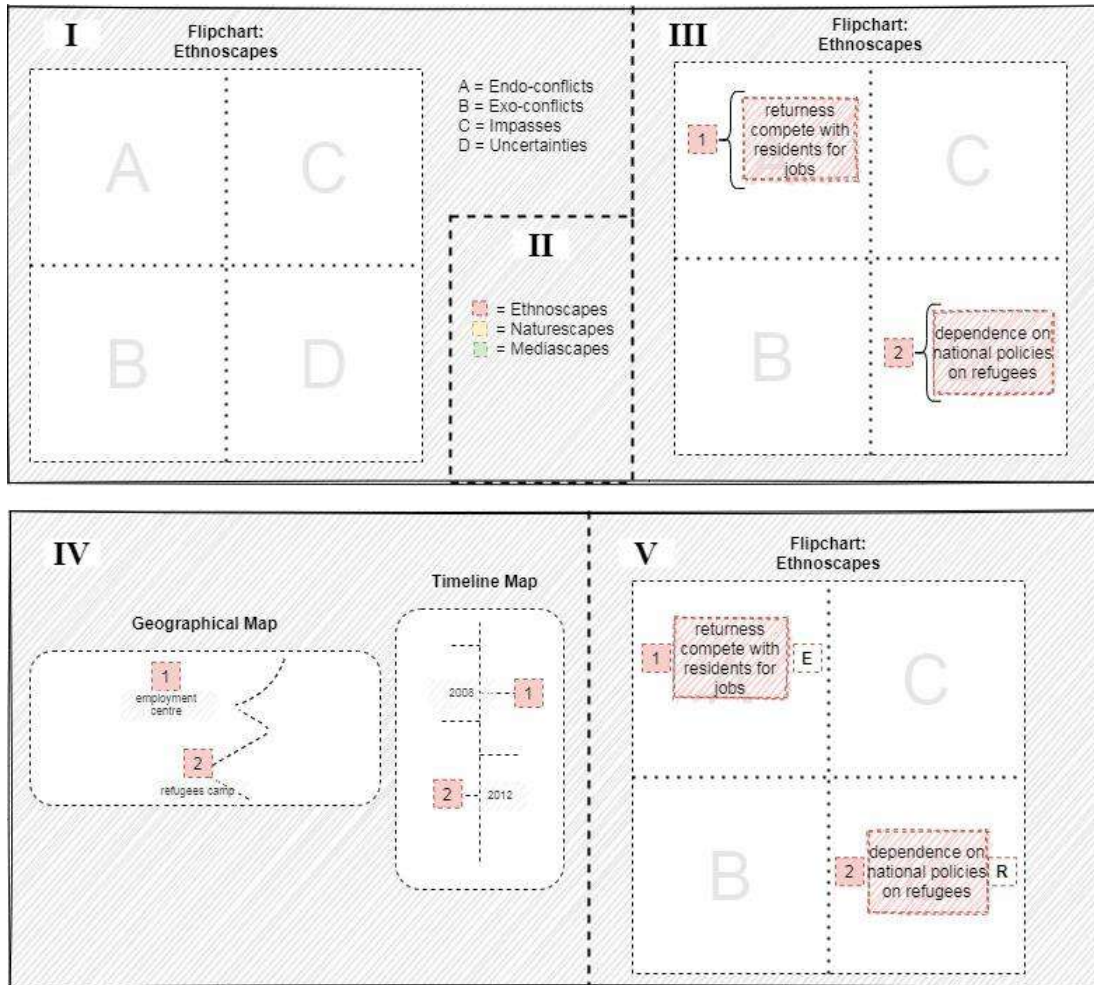
B.8. Visualising the strain situations

Visualisation procedure

Once a strain situation is discussed, the facilitator will mark it, so it can be visualised by all the participant. The visualisation system will work as follows.

- First, a flipchart screen will be dedicated to each of the areas of change. The flipchart will be divided into four quadrants, reflecting the four types of “strain situations”. The flipchart will work as a legend of the two base maps.
- Second, each *area of change* will be associated with a colour. So the post-it for the strain situations of an area will have all the same colour. The small squared post-it that will be placed in the two base maps to represent the strain situations will have the same colour.
- Third, the post-it(s) of the *strain situation* will be positioned on the flipchart, and on its left, it will be labelled with sequential numbers, i.e. the first with a “1”, the second with a “2”, etc. In this way, a system of coordinates [colour; number] will univocally identify a *strain situation*.
- Fourth, two small squared post-its with the same number and with the same colour will be placed respectively in the timeline map and the geographical map. This will allow showing the strain situation “in context”, and build, one step at a time and in a participated way, a map of stress-strains in the CCT.
- Fifth, the consistency of the strain situation will be marked in the flipchart with the following codes: no SCS (value=N), episodic SCS (value=E), recurrent SCS (value=R), persistent SCS (value=P).

Figure 3: visualisation system of the strain situations



B.9. Concluding and following-up

Feedback for FG2

After all, the three areas foreseen for the first meeting will be mapped, there will be some room for the participants to share impressions and suggestions for the conduction of the next meeting. The suggestion cannot change the “rule of the game” of the focus group but will provide useful insights on how to better manage or adjust the second meeting (e.g. information provided in the presentations, adjustments of time across the areas of change, etc.). The suggestions shared should not be necessarily addressed to the accompanying team, as they can also be addressed from one participant to the others.

Conclusion of FG1

The moderator will thank the participants and will remind the appointment for the second focus group. A very short overview of what’s next will be provided (e.g. the names of the areas of change to be mapped in FG2). If refreshment is foreseen it will be introduced in this phase too.

A final reading of the map

At the end of the second meeting, all the areas of change will be mapped. The moderator will launch then the final discussion, aimed at sharing some general reflection on the maps that have been produced in the two meetings: What are the challenges faced and opportunities to be caught in the coal and carbon territory in the light of the stress mapped?

Conclusion of FG2

At the end of the second meeting, the moderator will thank all the participants for the contribution. Moreover, he will share information on how the project will follow up on this activity (see below) and on the next steps of the research with a particular emphasis on the case study report and on the regional co-creation meeting. If refreshment is foreseen it will be introduced in this phase too.

Follow-up activity

The participants will be kept updated on how the results of the FG will be translated into research outcomes. The participants will be allowed to send feedback and suggestions on the mapping exercise they have participated in. In this regard, the focus group notes (see below B-9) will be shared with them in advance, asking for comments, suggestions, revisions or integration (if any). This will allow them to double-check if their insights have been taken into due consideration. The researchers will process the feedback before sending the focus group notes as LP3 outcomes. The case study report and the case study policy brief will be sent directly to the participants by the researchers. Moreover, if necessary, the researchers can ask the participants some clarification about a strain situation mapped during the two FG meetings.

B.10. Reporting the focus group

The focus groups notes

The focus group notes are due in Landmark Point 3 (LP3), i.e. in January 2022. There will be no need to have a full transcript (and translation) of the focus groups in the 13 cases. The focus group notes will be in English and will follow the same form in all the case studies. The form is based on the following four points: a) short report; b) list of strain situation mapped; c) description of the *strain situations*; d) timeline map; e) geographical map.

Short report on the focus group

This is one page describing the activities conducted, i.e., date and place of the focus groups, number of participants, category of participants involved, gender, age and professional background, duration of the FG1 and FG2, observations or comments of the researchers (if any), observation or comments on the focus group itself of the participants, main outcome of the focus group (e.g. number of strain situation mapped, etc.).

List of strain situation mapped

Please, provide a list of the strain situations mapped inserted in the following table. *Code*: please code the strain situation by inserting the first letter of the area of change (Ethnoscape=E, Mediascape=M, Financescape=F, Technoscape=T, Idescape=I, Naturescape=N), for example, E-4 indicates the fourth Strain situations identified in the area Ethnoscape. *Name*: Please insert the name of the strain situation. The researchers are free to choose a name different from those suggested in the post-it. *Area of change*. It is the area of change in which the strain situation has been identified. *Stress factor*: please indicate the codes of the concerned stress factor(s). The codes are those of D1.2. *Consistency*: please insert the assessed consistency of the strain situation with the following values: none, episodic, recurrent, and persistent.

Table 7: Organisation of the list of the strain situation mapped

Code	Name	Area of change	Stress factor(s)	Consistency

Description of the strain situations

Each of the strain situations will be described with: i) Code; ii) Name; iii) Stress factor(s); iv) Consistency; v) Description (including how the strain situation was generated, how it evolved in time, the involved actors and its contextualisation in the CCT); vi) Impacts on the territory; vii) Gender-related aspects.

Timeline map

The timeline map produced in the two focus group meeting will be reported in the focus group notes. The codes of the strain situations will be the same reported in the table. The final interpretation provided by the participants will be summarised.

Geographical map

The geographical map of the strain situations will be reported using the Datawrapper app. A short description based on comments from the participants will be provided.

B.11. Integrating the maps with other methods

Other sources and strain situations

All the other methods used in the research (stakeholders' analysis, state-of-the-art analysis, data collection, text research, survey, in-depth interviews) may be a source of information for identifying strain situations in the coal and carbon territory. This secondary use of the data that will be in any case collected will allow integrating the strain situations mapped with the focus group, and balance the emic perspective adopted in the two FG meetings (i.e. using a perspective from within the community) with an etic perspective (i.e. using a perspective from outside the local community). These data can be used with different purposes: a) integrating the information on the strain situations already identified in the focus group; b) identifying strain situations that were not mapped in the focus group (unmapped strain situations).

Integrating the strain situations mapped in the FG

Other sources analysed in the research may provide further information on the strain situations mapped with the focus group. This information may: a) corroborate the information already shared by the FG participants; b) provide further information on the strain situation, which is in line with those shared in the focus group; c) provide information that contradicts or emend those shared in the focus group. The information collected in this way will be registered in the *interpretation & reporting template*, which will keep track of which information comes from the participatory mapping in the focus group, and which other comes from the other sources.

Unmapped strain situations

The unmapped strain situations to be identified with the other methods will reflect the same features of those identified in the focus group, i.e. the four types of strain situations across the different areas of change (the observation matrix). Moreover, the strain situations identified with the other methods will be described as the others, i.e. i) Code; ii) Name; iii) Stress factor(s); iv) Consistency; v) Description; vi) Impacts on the territory; vii) Gender-related aspects. It is possible (and likely) that not all the information related to a previously unmapped strain situation will be available in the other sources. The information collected in this way will be registered in the *interpretation & reporting template*.

Use of the other sources

As the other methodologies have not been devised to map strain situations, it is not possible to foresee exactly what kind of information will be produced by the different methods. Nevertheless, based on the conceptual and methodological framework related to the other components of the research, it is possible to highlight what kind of information will be plausibly available across the other methods and components.

- Socio-psychological component. As this component is mainly based on a quantitative survey, it will not allow identifying unmapped strain situations. Nevertheless, the survey will contain useful information on Ethnoscapes and Mediascapes.
- Socio-political component. It is highly qualitative and it is likely to provide information on strain situations related to Ideoscapes, Technoscape, Mediascape.
- Socio-ecological and technical component. This component is highly qualitative and is likely to provide information on Financescapes, Naturescapes, Technoscape.
- Socio-economic component. As based on quantitative data, this component is likely to provide complementary information on the strain situation related to financescapes (all factors).

B.12. Interpreting socio-cultural stress in the CCT

The following are first ideas to be double-checked once the first FG meeting will be implemented.

Overall descriptive interpretation

At the end of the analytic phase, for each case study, a set of items will be ready for a descriptive interpretation and reporting of the socio-cultural stress in the CCT. The task of the interpretation/reporting is to: a) presenting the context of the analysis through describing the waves of de/re-territorialisation of the past; b) presenting the evidence collected through a profile of socio-cultural stress in the CCT; c) discussing the results through the lenses of de/re-territorialisation dynamics associated with SCS.

a) Waves of de/re-territorialisation of the past

Based on the timeline map and the geographical map, a rough interpretation of the waves of de/re-territorialisation of the past will be provided. This will provide an overview of the historical and geographical context of the case study.

b) Profile of socio-cultural stress

A profile of socio-cultural stress will be drafted. Each of the 19 stress factors will be interpreted and described based on the related strain situations mapped in the previous phases. Each stress factor will be described according to the following fields: i) *Evidence of SCS*: none, few, or strong evidence of SCS; ii) *Description of SCS*: synthesis of the strain situations mapped; iii) *Impact of SCS*: synthesis of the impacts of the strain situation mapped; iv) *Gender dimension*, how the strain situation in the factor affect gender.

c) Ongoing de/re-territorialisation processes

The research team will analyse horizontally all the strain situations mapped, and describe how SCS is generating de/re-territorialisation dynamics. This will be possible by reading the stress-strain situations using the following guiding questions⁹.

Table 8: Key questions on the ongoing de/re-territorialisation processes

	De-territorialisation	Re-territorialisation
<i>Continuity</i>	In which way the continuity of the territory is challenged?	Are there new continuities with the past?
<i>Distinctiveness</i>	In which way the distinctive traits of the territory have been challenged?	Are there new emergent distinctive traits of territorial identity?
<i>Self-narration</i>	In which way the local community self-narrate the crisis of the territory?	Are there emerging positive narratives of the territory?
<i>Self-governance</i>	In which way the territory is losing its locus of control?	In which way a new locus of control is emerging?

Procedure and case study report

The interpretation will be supported by a Final Interpretation Template. The procedure is as follows i) a draft of the de/re-territorialisation waves of the past will be drafted; ii) a first draft of the profile of SCS will be draft; iii) the two draft documents will be shared in advance among all the people to be invited for an interpreting session; iv) an interpretation session will be held in hybrid form, including all the cases team and invited members from the project, intending to answer the questions in Table 4. v) based on the discussion, a report including points a), b) and c) will be inserted as a chapter of the case study report.

References

- Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Theory, culture & society*, 7(2-3), 295-310.
- Appadurai, A. (1996). *Modernity at large: cultural dimensions of globalization* (Vol. 1). U of Minnesota Press.
- Bertrand, A.L. (1963). The stress-strain element of social systems: a micro theory of conflict and change. *Social forces*, 1-9
- Breakwell, G. (1993). Social representations and social identity. *Papers on social representations*, 2, 198-217.

⁹ Following Breakwell (1993) continuity, distinctiveness, self-efficacy and self esteem are four principles of the individual's identity. Using an analogy, and adaptating two of them, these categories are attributed here to a territory (rather than to an individual).



ENTRANCES

ENergy TRANsitions from Coal and carbon: Effects on Societies

Measuring Socio-Psychological Stress Methodological Guidelines



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 883947. The document represents the view of the author only and is his/her sole responsibility; it cannot be considered to reflect the views of the European Commission and/or the Innovation and Networks Executive Agency (INEA). The European Commission and the Agency do not accept responsibility for the use that may be made of the information it contains.

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Annex: Purpose Statement and Consent form.

Introduction

The ENTRANCES project

This document is inserted in the framework of the project Energy TRANSitions from Coal and carbon: Effects on Societies – ENTRANCES, which is a three-year project funded by the European Union's Horizon 2020 research and innovation programme. The project is coordinated by the University of A Coruña and is conducted by a consortium of 14 European partners, including universities, research institutes, networks, and umbrella organisations. The overall goal of ENTRANCES is developing a theoretically-based and empirically-grounded understanding of cross-cutting issues related to the societal aspects of the clean energy transition in European coal and carbon-intensive regions and formulating a set of recommendations able to tackle these issues.

To achieve this goal, the project investigates the challenges facing carbon-intensive regions in transition hinging on the idea that the transition to clean energy should not be considered only as a technological change or an industrial shift but also as a complex and multidimensional process, that affects the daily life of local communities. In this regard, the project understands the impacts of the clean energy transition on coal and carbon-intensive regions, either in terms of the potential activation or strengthening of the de-territorialisation process, i.e., the process of progressive weakening of ties between a community and its territory, and conversely as a window of opportunity for triggering their re-territorialisation.

The project will thus develop a set of case studies in 13 coal and carbon-intensive regions in transition. The case studies will be all studied with the same approach by adopting a Multidimensional Analytic Framework, structured into five analytical components: socio-cultural, socio-psychological, socio-political, socio-economic, and socio-ecological & technical components.

The methodological guidelines presented in this document are referring only to the socio-psychological component, where other guidelines have been developed for the other components.

The guidelines

The socio-psychological aspects of the ENTRANCES case studies will be investigated primarily through a survey on the 'impact of the decarbonisation process on the population in the coal or carbon intensive regions and their relationship to the territory'. As the title states, the survey is aimed at measuring the level of socio-psychological stress in the local population due to the ongoing phase-out or decarbonisation of carbon intensive activities throughout Europe. The survey will be conducted simultaneously in 13 different case study regions and will adopt a mixed approach that is described step by step in the present document.

This guide is intended to be used by the project's researchers (case study leaders) to implement the survey in their respective case study regions. Further information on the socio-psychological component can be found in D1.2. – Report on Multidimensional Key Factors, which is accessible on the project's website: <https://entrancesproject.eu/>.

SECTION A

Contents and procedures

A.1. Overview

Socio-psychological stress and decarbonization policies

The transformation of the energy system and the decarbonisation process are expected to have a notable impact on the socio-psychological wellbeing of the people in coal and carbon-intensive regions across Europe. In the Socio-psychological component, we will measure the long-term and short-term impacts of the decarbonisation process on the psychological wellbeing of the people in affected regions. It can provide crucial support to policymakers and investors, helping them to make informed decisions about immediate and appropriate measures and actions to retain the population and maintain the demographic, social and economic set up of these regions, while achieving a sufficient level of decarbonisation in the coming decades.

Measuring Socio-psychological stress

In each of the ENTRANCES case-study regions the project aims at measuring socio-psychological stress in the general population of the territories more directly challenged by the ongoing decarbonisation process, which in the project has been conventionally called the Coal and Carbon Territory (CCT)¹⁰. Through a quantitative survey, the project aims at creating new knowledge about the impact of different decarbonisation policies implemented in the CCT on the psychological wellbeing of people and the coping strategies adopted by different individuals to deal with this transition. The results of the survey will be compared with other sources of available knowledge (data, statistics, previous studies) as well as with the other results of the ENTRANCES project, in particular of the other analytical components. This analysis will be a constitutive part of the set of case studies produced by ENTRANCES.

A.2. Key concepts

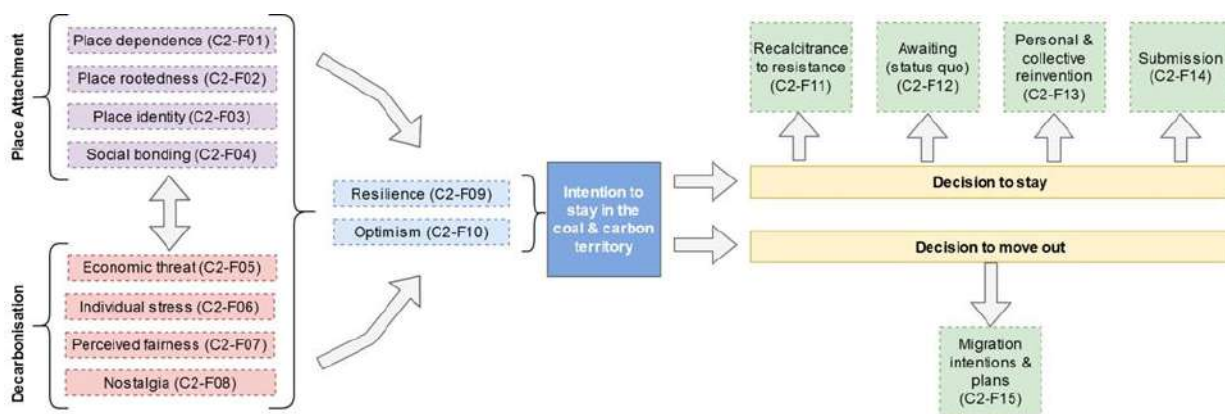
Place Attachment and Decarbonisation impacts

We will measure and analyse two main constructs in which the first is related to the relationship between the people and the territory (**Place Attachment**) and the second is related to the direct and indirect impacts of decarbonisation measures (phase out of coal mines and de-carbonisation of other carbon intensive industries) on the psychological well-being of the people directly or indirectly affected by this (which we named as **Decarbonisation Threats**). Place attachment (Altman and Low 1992) will be measured through four different constructs related to different aspects of the relationship between the people and the territory they live in: **Place Identity** (Proshansky, et al. 1983), which reflects the extent to which physical and symbolic aspects of the place contribute to one's sense of self or identity; **Place Dependence** (Shumaker and Taylor 1983), which reflects the functional aspects of the relationship between the people and territory;

¹⁰ So for each of the 13 coal and carbon-intensive regions in transition analysed by the ENTRANCES project, a sub-area has been defined as CCT.

Place Rootedness (Tuan 1980), which reflects the emotional aspects of this relationship; and lastly, **Social Bonding** (Raymond et al. 2010), which reflects how the social bonds affect the relationship between people and their neighbourhoods. Similarly, decarbonisation threats will be measured through five different constructs: **Individual Perceived Stress** (Remor 2006), which reflects the level of perceived stress among the people in coal and carbon intensive regions under transition; **Perceived Fairness** (Peiró et al. 2014), which reflects the level of perceived fairness regarding the distribution of costs and benefits of the decarbonization policies implemented in different case study regions; **Economic Hardship** (Marjanovic et al. 2013), which reflects the degree of economic hardship (financial constraints) faced by the people in affected regions; **Economic Optimism** (Patel 2012), which reflects the level of hope about the future economic prospects in affected regions; and lastly **Nostalgia** (Newman et al. 2020), which reflects the sense of loss among the people due to the phase-out of coal mines and phase out or decarbonisation other carbon intensive activities in the case study regions.

Figure 4: The Socio-psychological stress model



We will also use two constructs as moderators, which are expected to moderate the effect of decarbonisation policies on the people in affected regions. These constructs are: **Resilience** (Campbell-Sills and Stein 2007), which reflects the capacity of people or communities to deal with any transition or difficult situations in general and **Optimism** (Scheier and Carver 1993), which reflects a generalised tendency to expect positive outcomes or the belief that ‘good rather than bad things will happen in a person’s life’.

We will use five other constructs (dependent variables) to analyse the individual coping strategies to deal with the decarbonisation process, which are: **Intention to Relocate**, which reflects respondents desire to leave the territory; **Personal and collective reinvention**, which reflects the respondents desire to learn new skills and find new source of income while staying in the same region. The other three constructs will in addition reflect peoples’ attitude towards the decarbonisation process: **Recalcitrance to Resistance**, which reflects the respondents desire to resist the ongoing transition; **Support**, which reflects the respondents desire to support the transition; **Submission**, which reflects the passive response of respondents towards the transition. A new construct, **Life Satisfaction** (Vita et al 2020), is added to the previous model to measure the overall level of life satisfaction among the affected population.

Overall, 17 factors will be considered in the analysis. The interconnections of socio-psychological stress factors are visualised in the figure 1 above, while a description of the individual factors is presented in D1.2. Report on Key Multidimensional Factors.

A.3. Approach

Survey type

A mixed approach (including online, telephone or in-person survey) will be used to conduct a quantitative survey to collect primary data about the socio-psychological wellbeing and coping strategies of the general population in the CCTs across Europe. Based on the characteristics of the local population (level of education, digital literacy and access to telephones and internet), following types of survey techniques can be used:

1. **PAPI** (Pen-and-Paper Personal Interview): Any survey where the initial dataset is collected using pen-and-paper rather than electronic devices.
2. **CAPI** (Computer-Assisted Personal Interviewing) or computer-assisted interview: it is a face-to-face interview, in which the interviewer uses software that navigates the questionnaire, generates flows and may even have consistency validations (which do not accept aberrant or contradictory values in the answers).
3. **CATI** (Computer-Assisted Telephones Interviewing) or computer-assisted telephone interview, uses software similar to CAPI, but adapted to the telephone interview. These applications also manage the making of the calls themselves and allow the distribution of work among the team of interviewers.
4. **CAWI** (Computer Aided Web Interviewing) or computer-assisted web interview, is similar to the previous ones but mounted on a web page. Like CAPI, it allows the use of auxiliary multimedia materials for conducting the interview.

Observation matrix

The survey questionnaire is designed to collect information about nineteen different constructs, which reflects the impact of decarbonisation policies on the overall psychological wellbeing and life satisfaction of the local population in the CCTs and their relationship with the territory.

A.4. Structure

Articulation

The survey will be organised in all 13 selected coal and carbon intensive regions across Europe. A structured survey questionnaire will be used to conduct online or offline surveys depending on the level of digital literacy and access to the internet in different selected CCTs.

A.5. Phases, Steps and Tools

Phases and steps

The survey research module is articulated in three subsequent phases, i.e. Pre-Survey phase, Survey Implementation phase and Post-Survey phase, for a total of ten steps. In each step, one or more actions will be carried out for the implementation of the research module. These actions are described in detail in the session B of the guidelines.

Table 1: phases and steps of the research module

Phase	Step	Action Description	Time-Duration
Pre-Survey phase	1. Desk research	- Concept specification. - Identification of different factors, dynamics and patterns related to the Socio-psychological component. - Theoretical Model	May 2020- Feb. 2021
	2. Preliminary Questionnaire	- A preliminary questionnaire is designed to perform a pilot survey in the Coruña University (UDC).	
	3. Pilot Survey	- A pilot survey is conducted with the university students in the UDC. - Reliability and validity check.	March 2021
	4. Final Questionnaire. Information and consent letters.	- A final questionnaire is prepared for the survey. - Information letter and consent form are prepared for the survey respondents.	April 2021
	5. Translation and contextualization, gender sensitivity check and ethical committee clearance	- Translation of Survey questionnaire into different regional languages and contextualization in different regional contexts. - Gender sensitivity check. - Ethical clearance from the respective ethical committees in different institutes leading the case studies	May- June 2021
Survey Implementation phase	6. Identification and sampling of target population.	- Gathering preliminary information about the case study region. - The case study leader will identify the target population in their respective case study regions and select an appropriate sample.	July-August 2021
	7. Sending Survey Questionnaire and encouraging respondents to participate.	- The Survey questionnaires will be administered to the sampled population via online or offline platforms. - The respondents will be reminded (2 times) about the survey (if online).	

Post-Survey phase	8. Data collection and sharing.	- All data collected in different case study regions will be collected in a computer in the Social Psychology Lab of the UDC. - Collected data will be shared with all partners/researchers involved in the ENTRANCES project.	September 2021
	9. Data integration	- The results of the survey will be integrated with all the other data produced by the other methods of the case study.	
	10. Interpretation and case study report	- data will be interpreted by UDC in collaboration with case study leaders.	

Tools & materials

Besides these guidelines, the following materials will be provided to all partners (Annex I):

- Purpose statement / Information letter.
- Consent Form.

The Coruña study group has decided to hire a survey company (Edesga) that in addition to conducting the survey in Labor Market Area of A Coruña, will also provide an online platform with following services:

- Providing the hosting platform and conducting online surveys.
- Adaptation of each of the questionnaires to the particularities of each case (language, modification of questions, etc.).
- Management and monitoring of the process. Sending of different links, identification of errors, etc.
- Daily checking of the number of surveys received, degree of completion of the questionnaire, etc. A link will be generated for each of the case studies.
- Adaptation and management of the questionnaire on other platforms if necessary (for example, if they were to conduct face-to-face surveys, it may be more appropriate to use a different platform),
- Creation and debugging of the resulting databases in the requested formats.

The results obtained will be delivered in a purified database created for this purpose. Said database will have the format indicated by the client, preferably. sav, .csv, .xlsx .txt.

The property of the data belongs to the ENTRANCES team, so survey company (Edesga) would simply function as responsible and custodian of the same, without any greater right to its use. Six

months after the completion of the work (or as long as the client deems appropriate), Edesga will eliminate the resulting data.

SECTION B

Survey implementation

B.1. Gathering preliminary information

The role of preliminary information

All case study leaders are encouraged to collect preliminary information about their study regions:

- The demographic structure (gender distribution and age structure) of the case study region.
- The socio-economic set up of the case study region and the importance of carbon intensive industrial units in it.
- The languages used in the case study region.
- The level of education, digital literacy and access to the internet in their case study region.
- The spatial distribution of affected population in some specific areas/neighbourhoods in their case study region.
- The main stakeholders representing different population groups.

It will help researchers:

- To translate survey questionnaires into local language.
- To contextualize and modify questionnaires to their local contexts.
- To demarcate the geographical extent of the survey areas (e.g. more weight should be given to the areas proximate to the coal and carbon industrial units).
- To identify the target population and get a representative sample.
- To establish contact with the respondents.
- To decide the survey technique based on the characteristics of the target population.

B.2. Adapting survey questionnaire

Contextualisation of Survey questionnaire

Since, we are going to use the same survey questionnaire in 13 different case study regions across Europe, some contextualization of the survey questionnaire is needed. As we all know that all case studies are very heterogeneous in terms of their socio-demographic structure, economic and political power, level of digital literacy, types of carbon intensive activities and stage of ecological/energy transition or phase-out of carbon intensive units (coal mines, thermal power plants, industry plants), it generates a need to contextualize this survey questionnaire to make it more suitable to the local context in different case study regions. All case study leaders are expected to perform following tasks:

- Translation of survey questionnaires into local language, if possible with the help of regional language experts.

- Adding local references to the questionnaire items referring to particular geographical or administrative units.
- Take into account the gender sensitivity of each questionnaire item in the context of study areas.
- Decide the sample size for their case study (e.g. in Coruña we have planned a sample size of 500).
- Decide the method of data collection for their case study region.

Ethical clearance of survey questionnaire

All case study leaders should check the procedure for ethical approval of the survey questionnaire with their respective institutes/universities. While conducting the survey, all case study leaders should address the main ethical concerns related to data confidentiality, informed consent, information sheet, and other considerations.

B.3. Target population AND Sampling

Target population

Based on the objectives of the survey, the target population will be the residents of the CCTs, who are directly or indirectly affected due to the ongoing process of decarbonisation and energy transition. As our main goal is to identify and measure the socio-psychological stresses and the wellbeing of the people in different regions facing energy transition, it is recommended to have a big sample size representing all major groups of the resident population¹¹.

Sampling Frame

The sampling frame for the survey can be one of two types. The first type is a list of all members of the target population, while the second type is a method of selecting any member of this population. Sampling frames for the general population can be electoral rolls, street directories, telephone directories and customer lists from utilities which are used by almost all households, such as water, electricity, sewerage, and so on. It is preferable to use a list that is the most accurate, complete and up to date. National statistical offices are typically the best source of the information needed for a sampling frame since they collect socio-economic and demographic data through periodic household-based sample surveys, such as labour force surveys, living standards

¹¹ based on population of CCT. Case study leaders could refer to online tool for calculating sample size, e.g. <https://www.surveysystem.com/sscalc.htm>

measurement surveys, household budget and expenditure surveys, and demographic and health surveys. These surveys may not produce specific data on decarbonisation threats, but they do yield information that is useful for obtaining a reliable sampling frame. Working with the statistical agencies is therefore the easiest route for obtaining the sampling frame for use in the survey. Other possible sources for obtaining the sampling frame are labour ministries and public and private research institutions who conduct related research. The sample should be selected according to the following established principles:

- the sample must be representative of the entire population; and
- one must be able to extrapolate inferences, within known and acceptable margins of error, from the sample to the wider population.

Sampling procedure

The success of the survey will depend on how the sample is selected and how the different population components are represented in the sample. The sample can be drawn in several different ways, such as probability sample, quota sample, purposive sample, and volunteer sample, but is most likely to be designed using a combination of methods as the entire population is whittled down to the ultimate units in a step-by-step approach. The most widely-used sample selection methods that can be used are:

Probability samples:

Probability samples are sometimes known as random samples. They are the most accurate of the sample selection methods. Any survey aimed at generalizing results drawn from a sample to the whole population of interest must be based on probability sampling. When using a probability sample, each element in the population has a known and non-zero chance of being selected into the sample. Usually, each member of the population has the same chance of being included in the probability sample. With a probability sample, the first step is usually to try to find a sampling frame. Using this frame, individuals or households are numbered, and some numbers are chosen at random to determine who is surveyed. If no frame is available, other methods are used to ensure that every population member has an equal, or known, chance of inclusion in the survey.

Quota samples:

Quota sampling refers to selection with controls, ensuring that specified numbers (quotas) are obtained from each specified population subgroup (e.g. stakeholder groups or persons classified by relevant characteristics), but with essentially no randomization of unit selection within the subgroups. No population list is used, but a quota, usually based on census data, is drawn up. It is usually the interviewers who decide how and where they find the respondents. In this case, age and sex are referred to as control variables. This method is usually justified in terms of its convenience, speed and economy. It assumes that the main variability lies across, rather than within, the chosen subgroups, so that, once sufficiently small and homogeneous groups have been defined and properly represented, it is not important which particular individual units within any

groups are interviewed. One of the problems with quota samples is the difficulty to include some respondents rather than others. Another problem is, if too many control variables are used, interviewers will waste a lot of time trying to find respondents to fit particular categories. For example, the interviews may be specified not only based on sex and age, but also based on occupation, education, nativity and household size. Thus, it is very important with quota sampling to use appropriate control variables.

Purposive samples

A purposive sample refers to selection of units based on personal judgement rather than randomization. This judgemental sampling is in some way “representative” of the population of interest without sampling at random. One of the commonest uses of purposive sampling is in studies based on very small numbers of areas or sites. In these studies, variability with random selection is expected to be excessively large and, hence, potentially more damaging than the bias inherent in selection by judgement. The areas included may be determined on the basis of judgement although, within each area included, the selection of ultimate units may be randomized. Generally speaking, if the budget is small and only a small number of towns and cities can be included, you may choose these in a purposive way, perhaps ensuring that different types of town are included.

A maximum variation sample, which is sometimes called a maximum diversity sample, is a special type of purposive sample. The main objective of a maximum variation sampling technique is to select a sample that, in most cases, is more representative than a random sample. Note that a random sample is not always the most representative, especially when the sample size is small. The basic idea of a maximum variation sampling technique can be described as: ‘Instead of seeking representativeness through randomness, including a wide range of extremes would guarantee to a large extent representativeness’. The logic behind this procedure is that if you deliberately select very different people, the aggregate answers obtained from them will be close to the average.

Snowball samples

In some communities, the only feasible way to find its members is by asking other members. The first step in this procedure is to find a few members of the population using any method. This step is denoted as the first round. Then you ask each of these first-round members if they know of any others. The names given will form the second round. Then you go to each of those second-round people, and ask them for more names. This process is repeated for several more rounds. The process is stopped when you start hearing about the same people over and over again. This often happens at the fourth or fifth round. After performing this, something close to a list of the whole population is available. Using that list, you can draw a random sample. Snowball sampling works well when members of a population know each other. The problem with snowball sampling is that isolated people will not be included in the study.

Volunteer samples

A volunteer sampling procedure might be used when the above procedures are not possible. In general, samples of volunteers should be treated with caution. However, since all survey research involves some degree of volunteering, there is no fixed line between a volunteer sample and a probability sample. The main difference between a pure volunteer sample and a probability sample of volunteers is that, in the former case, volunteers make all the effort; no sampling frame is used.

Table 2: Conditions, advantages and disadvantages of different survey sampling techniques.

	Conditions for using this type of sampling	Advantage	Disadvantage:
Probability samples	Recent and reliable sampling frame	Sample is representative of the population of interest and results drawn from the sample can be generalized to the entire population.	Developed (and recent) sampling frame presumes a developed statistical agency and tools; often not possible in different countries
Quota samples	Statistics of subgroups of the population are already known (control variables) and are used to determine interviewees; only a few appropriate control variables are used.	Quicker and cheaper than starting from full population lists; no sampling frame is required.	Difficulty to locate sufficient respondents of particular characteristics; extreme care to be taken in use of control variables.
Purposive samples	Only a small number of towns or cities can be included in the first stage of sampling.	More representativeness than would be produced by a random sampling type.	Based on personal judgement rather than randomization and therefore includes a bias in the sample selection.
Snowball samples	Not a very large population and no population list is available; members of the population know each other.	Easiest way to produce something close to a list of the whole population when no existing list is available.	Requires a lot of work when the population is large; isolated people will not be included in the study, which introduces some bias.
Volunteer samples	A volunteer sample can produce accurate results only if a high proportion of the population voluntarily returns questionnaires.	No sampling frame is required; less effort in distributing questionnaires to particular individuals and convincing them that participation is worthwhile	If too few of the population volunteer for the survey, then the research team should investigate what was so special about them. There is usually no way of finding out how those who volunteered are different from those who did not.
Stratification	Census data about smaller parts of the whole survey area must be available.	Reduced sampling error; permits separate control over design and selection of the sample within each stratum; more representativeness of the population characteristics; reduced travel and other costs of data collection.	Requires subjective choices in determining the defining criteria, number and boundaries of strata.

Stratification

A more representative sample can be selected using the stratification procedure. The basic idea here is to divide the target population into strata (groups) based on characteristics that you think are important. Stratification leads to reduced sampling error because it can ensure that all relevant portions of the population are included in the sample. Stratification is easy to do, and it should be used whenever possible for optimal coverage purposes. But for it to be possible, you need to have a) census data about smaller parts of the whole survey area, and b) some way of selecting the sample within each small area. The principle of stratification is simply that, if an area has X percent of the population, it should also have X percent of the interviews. Generally speaking, the strata represent relatively homogeneous groupings of units. Therefore, the resulting sample is made more efficient by ensuring that units from each population group are appropriately represented in a controlled way.

Combined sampling methods: Multi-stage sampling

In several surveys, sampling is done in several steps. The first step is usually to choose a purposive sample of affected population groups. In the second stage, a stratified sample of different individuals within each population group is selected. This procedure continues until the sample of targeted individuals is determined. The multi-stage sampling presents several advantages:

- By concentrating on the units to be enumerated into “clusters”, it improves the coverage, supervision, control, follow-up and other aspects that have a bearing on the quality of data collected.
- Administrative convenience of survey implementation increases.
- Selecting the sample in several stages reduces the work and cost involved in the preparation and maintenance of the sampling frame.
- The effort involved in sample selection can also be reduced, since more information is usually available for classifying and stratifying larger units.

Sampling procedure for Coruña

In the case of Coruña case study, the survey company (Edesga) hired to conduct survey uses two methods for the selection of individuals to interview:

- *Sequential selection*: In this case, a telephone is called and the profile of the person who answers is asked. In the case of accepting to answer, it would cover the corresponding profile.
- *Random selection*: The profile to be interviewed is randomly selected (for example, a woman under 35 years of age) and, if there is no one on the phone with that profile, it is considered invalid.

In Coruña, Edesga has decided to use the sequential selection process, since it is much faster and more efficient when it comes to taking advantage of the limited number of telephones available in the municipality of As Pontes. Furthermore, this method does not affect the quality of the results since the responses are not subject to extremely immediate news as they would be, for example, in electoral polls. Public telephone databases and paid databases will be used to carry out the work. These databases are made up of both landlines and mobile phones and can be used exclusively for this work. All the people who appear in these databases have given their consent at some point so that their telephone number can be used for purposes such as this one. The sample will be stratified by gender, age, education, occupation, and time of stay in the region. The mandatory sample size for each case study in ENTRANCES is 50 respondents, however, in Coruña the sample size will be 500. Most ENTRANCES partners also agreed to aim for a representative sample size of about 400.

Table 2: Sampling in A Coruña case study region.

Sample Size	Minimum 50	Ideally 300+	Planned 500	
Sex	Males (48%)	Females (52%)		
Age	16-34 (20%)	35-64 (52%)	65+ (28%)	
Education	Primary (30%)	Secondary (40%)	University (30%)	
Occupation	Primary Sec. (10%)	Industrial Sec. (40%)	Services (40%)	Unemployed (10%)
Duration of Stay	0-5 (10%)	5-10 (30%)	10+ (60%)	

Note: Municipal register data has been used to calculate the proportion of different population groups in the total population. **All other case study leaders may use the data collected for socio-economic component for grouping.**

Geographical Distribution:

In Coruña, the carbon intensive activities are concentrated in few municipalities, which in turn concentrates the impact of the closure of coal mines and thermal power plants to these municipalities. Consequently, the geographical representation of the study area will be as follows:

1. *The central zone:* The municipalities of As Pontes, Ferrol and the Narón are included in the central part. 30% of the total sample will come from As Pontes, where the Central thermal power plant is located, 20% will come from the municipality of Ferrol and 10% from Narón.
2. *The outer part:* 40% of the total respondents will be selected from the municipalities around the central zone.

Edesga will use the postal codes associated with telephone numbers to control the spatial distribution of respondents.

All other case study leaders can make an initial assessment of their CCT and LMA, which will help them to identify the most affected areas in their case studies. Then they can decide the proportion of respondents from each spatial unit (neighbourhood, district or municipality) on the basis of their own assessment or they can ask for expert opinion from the researchers who have already worked in the region.

Contact procedure in Coruña

To collect the information, the CATI (Computer Assisted Telephone Interviewing) method will be used, through which the people in charge of the field work will contact the individuals in the sample by phone and ask them the corresponding questions, accordingly. The answers will be automatically recorded in a computer application. The advantages of this work methodology are:

- **Speed:** After a survey is finished, the program executes a new call, avoiding dead times and inactive periods. Furthermore, the concentration of all the surveys in a single operating center contributes to eliminating the geographical or time factor as a limitation in the study.
- **Quality:** The quality of the interviews is guaranteed in different ways. Specifically, real-time supervision and recording of interviews will help to control errors and correct them and, therefore, to improve the quality of the surveys.
- **Automation:** The system offers high automation of the process, which favours the management of the database, generates an automatic mark-up and, consequently, guarantees the confidentiality of the informants.

Survey tools used in Coruña

In Coruña case study, Edesga will use the following call center applications:

- **Call switchboard:** Among the different companies that offer VOIP virtual switchboard service, the company will work with the **Neotel2000**¹², precisely because of its guarantee in terms of data management and protection.
- **Online survey applications:** For the effective registration of the surveys, the company will work with different platforms, both generic and created ad hoc, depending on the needs of the project. In this case, the company will use **SurveyMonkey**¹³, both for its versatility and adaptability and for its data protection assurance.

Data protection in Coruña

¹² <https://www.neotel2000.com/politica-de-privacidad/>

¹³ <https://es.surveymonkey.com/curiosity/surveymonkey-committed-to-gdpr-compliance/>
<https://es.surveymonkey.com/mp/privacy/>

Edesga complies with current regulations on data protection and each of the tools or applications that it subcontracts offer the same guarantee in compliance with the General Data Protection Regulation of the EU. The databases of contacts, results and recordings of calls made are kept on the company's encrypted server. These data are available and exclusive access to Edesga. The data is kept for a maximum of 3 months after the end of the project, unless previously requested by Edesga. Throughout the fieldwork process, Edesga maintains exclusive control of the data, whether it be the contacts, the recordings of the surveys or any information generated on the occasion of the project. This exclusive access is protected under an authentication mechanism and only those responsible for coordinating the project can access the username and password to manage this data. These data protection rules are valid also for all ENTRANCES partners choosing to implement the survey via Edesga survey platform and data hosting services.

Deliverables in Coruña

In Coruña (and all other members who join the platform), the company will deliver the results obtained in a purified database created for this purpose. Said database will have the format indicated by the UDC team, preferably. sav, .csv, .xlsx .txt. The property of the data belongs to the UDC Entrances team, so Edesga would simply function as responsible and custodian of the data, without any greater right to its use. Six months after the completion of the work (or as long as the UDC team deems appropriate), Edesga undertakes the responsibility to eliminate the data.

B.4. AdministEring Survey questionnaire

Based on the level of education, digital literacy and access to the internet one method or the other (online or telephone or in-person) will be used. As a consequence, some respondents will answer the questionnaire in a self-administration way (i.e. the respondents fill in the questionnaire –on-line or face-to-face) while others will answer after being asked by data collectors.

Via Online Platform (CAPI)

All case study leaders who decide to join the Edesga platform for jointly implementing the ENTRANCES survey will be provided with a `link` to distribute to the sampled population. The data will be collected in a central database.

Via telephone call (CATI)

The researcher or the hired company workers will call the respondents, explain them about the main objectives of the project, read the questions one by one and fill the questionnaire him/herself. In Coruña, this method will be used.

Via in-person interviews (PAPI)

The researcher will go to public spaces or to the private houses with printed questionnaires (Paper and Pencil Interview) with a link to the online questionnaire and collect information. This is a second choice for Coruña, for the target population with lower levels of digital literacy and access to the internet.

Covid-19 security protocol

Based on the local rules, a security protocol should be developed in each of the case studies. The protocol should be prepared in advance and, if needed, information about the protocol should be shared with the participants in advance.

Rehearsal session

A few days before the survey, it is highly recommended to organise a rehearsal session in the presence of all the *accompanying team*.

1. For all case study leaders who opt for the online platform, it is important to rehearse with the link provided by the platform. The platform will take the responsibility to deal with all issues (if any) related to the functioning of the link.
2. The in-person interviews will be rehearsed by the case study leaders in their respective institutions.
3. The telephone call will be rehearsed in the case study research group. The data collector (researcher) can call some colleagues and fill the questionnaire.

It is recommended that all the survey materials (*information letter, consent letter and questionnaire*) should be used at the rehearsal. The rehearsal is a key activity, as the success of the survey will depend also on the capacity of the research team and to produce effective communication with the respondents.

B.5. Preparing logistical aspects

This is only pertinent to the case study leaders who opt for in-person survey interviews.

Survey Site

The in-person interviews should be done at the public places or the usual residence of respondents or any other place selected by them.

List of materials

Please check that all the materials are ready for the survey. The full list of materials includes:

- Information letter.
- Consent form.
- Printed copies of the survey questionnaire.
- Tablets for the in-person interview.

B.6. Recommendation and rules

Recommendations

Following are the general steps that should be followed during the distribution of a survey instrument.

- Seek to avoid the “non-response error¹⁴” by employing state-of-the-art survey research techniques.
- For the online survey, each participant should be contacted at least three times. First contact will be a letter (email) of introduction including the information and purpose of survey and online link or survey questionnaire. Second contact will be a reminder. Third contact will be the final reminder and acknowledgement.
- Each contact should be and look different since difference attracts attention.
- Timing of the contacts will be determined by the nature of the population being surveyed and the medium being used.

Information letter and consent form

The following issues should be taken into consideration while writing an information letter and consent form:

¹⁴ Non-response errors affect survey results in two ways. First, the decrease in sample size or in the amount of information collected in response to a particular question results in larger standard errors. Second, and perhaps more important, a bias is introduced to the extent that non-respondents differ from respondents within a selected sample.

- Where possible, have the most legitimate authority figure available sponsor the survey and sign all of the correspondence.
- Use a professional tone, a scholarly approach, and a business format for all survey correspondence.
- Write so as to demonstrate respect for participants' time and regard for their opinions.
- Set forth in very clear and concise language the purpose of the research and use of the information being collected.
- Assure participants of their Confidentiality or Anonymity.
- Be sure to clearly delineate how their voluntary participation in this survey can benefit others (the entity, the CCT/region/city, the profession, or society).
- Stress the unique and limited opportunity that the survey provides them to affect decisions, policies, procedures, etc.
- Communicate the timeframes for data collection, analysis and reporting.

Privacy issues

All the participants will be asked to sign a *Consent Form*. It is recommended that the organizing partner translate it into the regional language. Anonymity and confidentiality will be ensured. Each respondent will be assigned a number tag, while keeping anonymity.

B.7. post Survey activities

Post Survey activities

The steps below should be taken immediately after the survey administration phase of the research has been completed:

- Each survey received will be examined for completeness.
- The entire database will be examined for completeness.
- Decisions will be made on how to handle incomplete surveys and database fields.

Response Rate Standards

Determine the optimal number of survey respondents needed to adequately address a given research question. Some general requirements are indicated below.

- A response rate lower than 30 percent will be considered inadequate for analysis.
- A 30 to 50 percent response rate will be considered marginal. Therefore, any analyses performed and any conclusions drawn will be treated in a tentative and cautious manner.
- A 50 to 60 percent response rate will be considered adequate.
- A 60 to 70 percent response rate will be considered good.
- A 70 to 100 percent response rate will be considered excellent.

Analyses should always include levels of significance at 0.05 and 0.01. The sampling error and confidence intervals will be provided for all parameters at these predetermined levels of significance unless otherwise agreed to by the researcher and duly noted in the research report. Sampling error will decrease as the sample size increases.

Survey Data Analysis

The survey data will be collected in the UDC Socio-psychology Lab. A single database will be created with the data collected from all case studies. This data will be provided to all interested ENTRANCES researchers who want to analyze it. The results will be shared with all ENTRANCES team members.

Reporting Standards

The standards for reporting findings are as follows.

Handling conclusive findings

Conclusive findings will be those that are found to be statistically significant at 0.05 or lower (95% or higher). These conclusions should be noted as the “Major Findings” from the survey.

Handling inconclusive results

Inconclusive results will be those that are found to lack statistical significance at 0.05 or lower (95% or higher). These results should be noted in the tables and texts of the report, but should not be included in the summary or in the major findings of the report. Inconclusive results can be caused by several factors:

- Inadequate sample size
- Inadequate response rate
- Inadequate statistical significance

The final report should include “if” and “how” factors (1) and (2) might be addressed.

Handling of recommendations

Actionable recommendations should be proposed based upon the findings from survey research. The items that follow indicate the process that will be followed in developing and publishing recommendations.

- Recommendations arising from the survey findings should be “reality checked” by “content experts.”
- “Reality Checking” by a “content expert” can assist with shaping the recommendation to be of the most value to decision makers and/or researchers.

B.8. Integrating Survey results with other methods

The survey results will be integrated to the results obtained from other data collection methods (focus groups, in-depth interviews and text research). The sample selected during the survey can help researchers to find subjects for other methods.

References

- Altman, I.A. & Low, S.M., eds. 1992. Place attachment. New York: Plenum. 314 p.
- Campbell-Sills, L., Cohan, S. L., & Stein, M. B. (2006). Relationship of resilience to personality, coping, and psychiatric symptoms in young adults. *Behaviour Research and Therapy*, 44, 585–599.
- Marjanovic, Zdravko, Greenglass, Esther, Fiksenbaum, Lisa, and Bell Chris M. (2013) Psychometric evaluation of the Financial Threat Scale (FTS) in the context of the great recession. *Journal of Economic Psychology* 36:1–10.
- Newman, David B.; Sachs, Matthew E.; Stone, Arthur A. & Schwarz, Norbert (2020) Nostalgia and Well-Being in Daily Life: An Ecological Validity Perspective. *Journal of Personality and Social Psychology*, 118(2):325–347.
- Patel, Saurin (2012) Economic Optimism, Information Uncertainty and Future Investment Decisions: Evidence from the Mutual Fund Industry (August 2012). Available at SSRN: <https://ssrn.com/abstract=1977974> or <http://dx.doi.org/10.2139/ssrn.1977974>
- Peiró, J. M., Martínez-Tur, V., & Moliner, C. (2014). Perceived Fairness. *Encyclopedia of Quality of Life and Well-Being Research*, 4693–4696. doi:10.1007/978-94-007-0753-5_2125
- Proshansky, H., Fabian, A. K., & Kaminoå, R. (1983). Place-identity: Physical world socialization of the self. *Journal of Environmental Psychology*, 3: 57-83.
- Raymond, C. M., Brown, G. & Weber, D. (2010) The measurement of place attachment: Personal, community, and environmental connections. *Journal of Environmental Psychology*, 30, 422-434.
- Remor, Eduardo (2006) Psychometric properties of a European Spanish version of the perceived stress scale (PSS). *The Spanish Journal of Psychology*, 9(1): 86-93, Universidad Complutense de Madrid España
- Scheier, M. F. & Carver, C. S. (1993). On the power of positive thinking: The benefits of being optimistic. *Current Directions in Psychological Science*, 2(1), 26–30.
- Shumaker, S. A. & Taylor, R. B. (1983) Toward a clarification of people- place relationships: A model of attachment to place. In Feimar, N. R. & Geller, E. S. (Eds.) *Environmental psychology: Directions and perspectives*. New York, Praeger.
- Tuan, Y. F. (1980) Rootedness versus sense of place, *Landscape* 24, pp. 3–8
- Vita, G., Ivanova, D., Dumitru, A., García-Mira, R., Carrus, G., Stadler, K., Wood, R., Hertwich, E. G. (2020). Happier with less? Members of European environmental grassroots initiatives reconcile lower carbon footprints with higher life satisfaction and income increases. *Energy Research and Social Science*, 60. <https://doi.org/10.1016/j.erss.2019.101329>

Annexes

I: Purpose statement and Information Letter

II: Consent Form

Please find the Purpose statement and Information Letter as well as the Consent Form in D2.2: Collection of research protocols, guidelines, and data management tools.



ENTRANCES

ENergy TRAnsitions from Coal and carbon: Effects on Societies



