



QUALITATIVE RESEARCH METHODS

Course syllabus

Course consists of 30 hours of lectures. These will be delivered as follows.

1. Qualitative research (Hours 1-2)

- historical overview of qualitative research
- key concepts, open questions and dilemmas
- goals of qualitative research
- selected topics from philosophy of science: ethics; theory and research; reliability and validity

2. Key problems and their solutions in qualitative research (Hours 3-5)

- management and financing qualitative research
- quality and availability of data
- concepts and research parameters
- sampling in qualitative research.

3. Internal logics of qualitative research and key research strategies (Hours 6-8)

- preparing research design for qualitative social research: key elements
- research question, theoretical concepts, operationalization,.

4. Different approaches to comparative research (Hours 9-11)

- case studies and comparative case studies
- comparative historical analyses
- cases vs. variable in comparative social research
- qualitative and quantitative comparative research
- fuzzy-set research.

5. Key research methods (Hours 12-21)

- ethnography and participant observation
- Interviewing in qualitative research
- Focus groups
- Contents analysis, conversation analysis, discourse analysis
- documentary analysis.

6. Qualitative data analysis (Hours 22-26)

- general strategies
- basic operations and associated problems
- thematic and narrative analysis.

7. Key selected topics (Hours 27-30)

- mixed methods research
- internet research methods
- writing up social research
- CAQDAS: Computer-assisted qualitative data analysis.

QUALITATIVE RESEARCH METHODS

Course reading materials

Obligatory literature

- Bryman, Allen (2012): *Social Research Methods*. 4th edition. Oxford and New York: Oxford University Press.
- Gilbert, Nigel (2012): *Researching Social Life*. 3rd edition. London: Sage.
- Friese, Susanne (2012): *Qualitative Data Analysis with ATLAS.ti*. Los Angeles etc.: Sage.
- Lamut, Urša in Macur, Mirna (2012): *Metodologija družboslovnega raziskovanja: od zasnove do izvedbe*. Ljubljana: Vega.

Additional relevant materials – EU and qualitative research

- Holger Bähr (2016): *The Politics of Means and Ends: Policy Instruments in the European Union*. London: Routledge
- Sascha Kraus, Domingo Ribeiro-Soriano, Miriam Schüssler (2018): “ Fuzzy-set qualitative comparative analysis (fsQCA) in entrepreneurship and innovation research: the rise of a method”. *International Entrepreneurship and Management Journal*, Volume 14, Issue 1, pp 15–33
- Aline Sacchi Homrich, Graziela Galvão, Lorena Gamboa Abadia, Marly M.Carvalho (2018): “The circular economy umbrella: Trends and gaps on integrating pathways. *Journal of Cleaner Production*, Volume 175, pp 525-543.

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QUALITATIVE RESEARCH METHODS

Course instructions

1. Attending lectures and seminars is highly recommended, giving you the opportunity to attend discussions and observe demonstration of specific research methods and analytical techniques.

2. During the course, you will need to:

a) complete a seminar paper (write and defend). Each student writes seminar work alone; no teamwork is allowed.

The seminar paper is an empirical research from A to Z. It must include definition of research area, research question, hypothesis (optional), literature review, operationalisation and data collection tool (e.g. interview guide; observation protocol), analysis of data and conclusions.

Seminar paper is an empirical work. Students can decide to:

- collect their own qualitative data or
- use the qualitative data collected during one of previous research project by Jean Monnet Chair; in this case the topic and data must be relevant from perspective of Europe 2020 – therefore they need to analyse the processes relevant from the perspective of smart, sustainable and inclusive growth.
- use the qualitative data from Slovenian Social Science Archive (www.adp.uni-lj.si); in this case the topic and data must be relevant from perspective of Europe 2020 – therefore they need to analyse the processes relevant from the perspective of smart, sustainable and inclusive growth.

b) Seminar paper is composed of two parts. Student must follow the structure:

- The first part is the main body of text in which the student needs to present the empirical research. In writing the paper, student must follow general instructions of the Faculty of Information Studies in Novo mesto for the production of written products (published on www.fis.unm.si under the section “pravilniki in obrazci”).
- The second part is appendix with data collection tool, data collected or used (e.g. focus group transcript) and presentation of entire analytical procedure (e.g. coding of transcripts).

4. To pass the course the student needs to meet minimum criteria set by the grading regulations of the Faculty of Information Studies in Novo mesto for the production of written products (published on www.fis.unm.si under the section “pravilniki in obrazci”).

7. The content of the course is defined in the syllabus, which is published on Moodle and on website www.borutroncevic.net.



QUALITATIVE RESEARCH METHODS

Databases

Seminar paper is an empirical work. Students can decide to:

1. Collect their own qualitative data upon consultations with lecturer and teaching assistant.
2. use the qualitative data collected during one of previous research project by Jean Monnet Chair; in this case the topic and data must be relevant from perspective of Europe 2020 – therefore they need to analyse the processes relevant from the perspective of smart, sustainable and inclusive growth.

Sample of relevant qualitative data are focus group transcripts attached to this document.

3. use the qualitative data from Slovenian Social Science Archive (www.adp.uni-lj.si); in this case the topic and data must be relevant from perspective of Europe 2020 – therefore they need to analyse the processes relevant from the perspective of smart, sustainable and inclusive growth.

Additional databases:

Students are encouraged to use additional relevant databases. They can use qualitative data that is relevant from perspective of Europe 2020 – therefore they need to analyse the processes relevant from the perspective of smart, sustainable and inclusive growth.



APPENDIX – Data collection tool and a Sample database: 3 focus groups analysing innovations in regional context (Slovenia, United Kingdom, Serbia)

Introductory questions

1. Who are the entities responsible for innovations in the region?
2. In your region, to what extent do companies have the capacity to innovate?
3. Within your region the ownership of business is more private or more owned by the state?
4. On a daily basis, you within your institution/ business, what is the nature of your tasks: manual vs. intellectual?
5. On a daily basis, you within your institution/ business the nature of tasks: routine vs. creative?
6. Do future changes have to rely more on the emphasis of the development of technology?
7. Is it important to a person to think up new ideas and be creative?
8. Is the protection of environment more important than economic growth?



Questions on Regional Innovation Profile

Question 1

Please assess the level of innovation within your region?

Examples of important aspects concerning regional profile:

Capacity to innovate

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the level of innovation?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?



Question 2

What are the strengths and weaknesses concerning collecting, processing and disseminating innovation information (such as funding opportunities, potential partners, available know-how, technologies, etc.) in the region?

Examples of important aspects concerning collection, processing and dissemination of information characteristics:

Access to information, Relevant stakeholders involved in the process

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the process concerning collecting, processing and disseminating innovation information in the region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?



Question 3

What are the regional strengths and weaknesses concerning enterprises and R&D?

Examples of important aspects concerning RTD characteristics of firms situated in the region:

Employment in R&D, R&D-characteristics (dependence on and performance in R&D, innovation and entrepreneurship, access to funding and cooperation, pro-active market approach) of individual enterprises, sectors and clusters, etc.

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the strengths and weaknesses concerning enterprises and R&D in your region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 4

Is the final product oriented toward regional level?

Examples of important aspects concerning product orientation:

National level, Export.

Strengths:



Weaknesses:

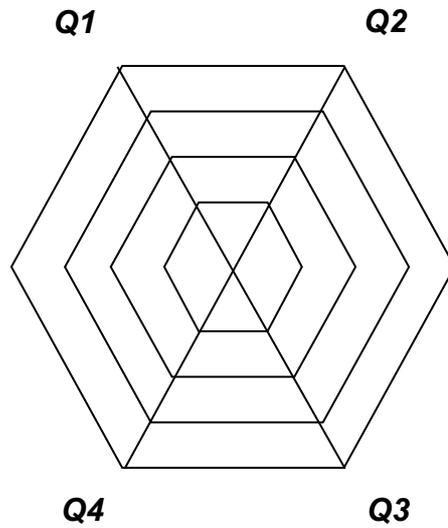
If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the final product orientation toward regional level?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

'Spider web' diagram of scores on Regional Profile



Legend:

Scores 1-4.

1 being
minimum/ most
undesirable

and

4 being
maximum /
most desirable.

Internal 'ring' =
score 1.

External 'ring' =
score 4.

Plot the scores of questions 1 - 4 in the 'spider web' diagram

Questions on Institutions



Question 5

What are the strengths and weaknesses concerning the role of the public authorities and/or intermediary organizations representing these authorities?

Examples of important aspects concerning strengths and weaknesses concerning the role of the public authorities and/or intermediary organizations representing these authorities:

Presence of strong sectors, Support of R&D opportunities, Formal and informal trainings

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score public authorities and/or intermediary organizations representing these authorities?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 6

Does your region have the capacity to attract talented people?

Examples of important aspects concerning capacity to attract talented people within the region:

Professional Development, Rewards and Recognition, Migration Policy, Integration, etc.

Strengths:

Weaknesses:



If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the capacity to attract talented people within the region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 7

Does your region have the capacity to retain talented people?

Examples of important aspects concerning capacity to retain talented people within the region:

Professional Development, Rewards and Recognition, Migration Policy, Integration, etc.

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the capacity to retain talented people within the region?

Score:

1	2	3	4



Any additional comments concerning the motivation of the score?

Question 8

What are the strengths and weaknesses regional innovation-policy?

Examples of important aspects concerning innovation policy within the region:

Long-term objectives, Innovation vision

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the innovation policy within the region?

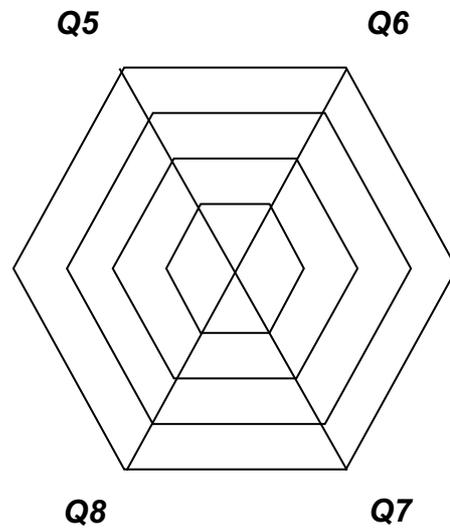
Score:

1	2	3	4

Any additional comments concerning the motivation of the score?



'Spider web' diagram of scores on Institutions



Legend:

Scores 1-4.

1 being
minimum/ most
undesirable

and

4 being
maximum /
most desirable.

Internal 'ring' =
score 1.

External 'ring' =
score 4.

Plot the scores of questions 5 - 8 in the 'spider web' diagram

Questions on Networks.



Question 9

How networks are organized (e.g. multi-sectoral, enterprises only or sector only) and to which extent do the networks contribute effectively to innovation performance?

Examples of important aspects concerning network organization in the region:

Power symmetry, Openness to new actors, Differences in clusters, sectors or individuals

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-5 (four being maximum / most desirable), what would your score be for the network organization in the region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 10

What are the strengths and weaknesses concerning cooperation between stakeholders within the region?

Examples of important aspects concerning cooperation between stakeholders within the region:

Key actors, Cooperation, Representation, Operation Contexts

Strengths:



Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (five being maximum / most desirable), what would your score be for the strengths and weaknesses concerning cooperation between stakeholders within the region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 11

What are the strengths and weaknesses concerning cooperation between regional stakeholders and parties outside the region?

Examples of important aspects concerning cooperation between regional stakeholders and parties outside the region:

Added value, Differences in National and International Cooperation, Intermediaries

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the strengths and weaknesses concerning cooperation between regional stakeholders and parties outside the region?

Score:

1	2	3	4
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Any additional comments concerning the motivation of the score?



Question 12

Do stakeholders trust each other?

Examples of important aspects concerning trust for the interaction for innovation processes within the region:

Trust within and outside the region

Strengths:

Weaknesses:

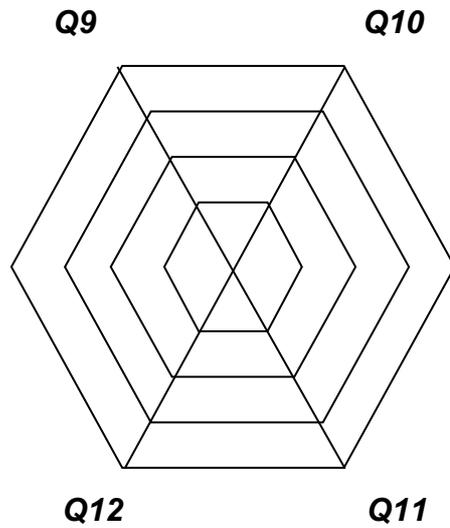
If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the role of trust for innovation process within the region?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

'Spider web' diagram of scores on Networks



Legend:

Scores 1-4.

1 being
minimum/ most
undesirable

and

4 being
maximum /
most desirable.

Internal 'ring' =
score 1.

External 'ring' =
score 4.

Plot the scores of questions 9 - 12 in the 'spider web' diagram

Questions on Cognitive Frames



Question 13

What are the strengths and weaknesses of the culture and attitude of the population concerning creativity and entrepreneurship?

Examples of important aspects concerning strengths and weaknesses of the culture and attitude of the population's creativity and entrepreneurship within the region:

National and Regional characteristics

Strengths:
Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the culture and attitude of the population's concerning creativity and entrepreneurship?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 14

To what extent do the regional attitudes / culture enable the learning processes in the region?

Examples of important aspects concerning attitudes / culture the regional learning processes:

Willingness to adopt new approaches



Strengths:
Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for role of regional attitudes / culture for the regional learning processes?

Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 15

Is competition seen as a positive value for innovation process?

Examples of important aspects concerning competition as a value for innovation processes within the region:

Importance of solidarity

Strengths:
Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for competition as a positive value within the region?



Score:

1	2	3	4

Any additional comments concerning the motivation of the score?

Question 16

What is the role of globalization for the innovation processes?

Examples of important aspects concerning globalization for innovation processes within the region:

Access to knowledge, Competition with foreign companies, Access to new markets, Accessibility of information, etc.

Strengths:

Weaknesses:

If you should translate all these strengths and weaknesses into ONE score on a range of 1-4 (four being maximum / most desirable), what would your score be for the role of globalization for innovation process within the region?

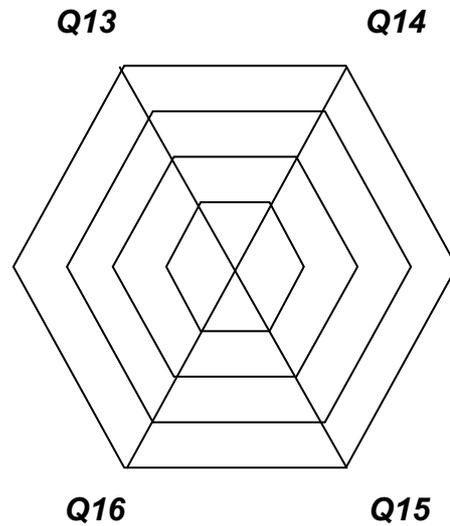
Score:

1	2	3	4

Any additional comments concerning the motivation of the score?



'Spider web' diagram of scores on Networks



Legend:

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score 1.

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score 4.

Plot the scores of questions 13 - 16 in the 'spider web' diagram

Appendix 1. Additional information on questions

This appendix provides detailed information on each important aspect. The information can be used as support for identifying strengths and weaknesses as well as for the scoring process.

Question 1

Please assess the level of innovation within your region?

Additional questions

- 1.1. Is innovation processes part of your region?
- 1.2. In your region, to what extent do companies have the capacity to innovate?
- 1.3. Is the region situated relatively close to national cultural centers and recreational opportunities?
- 1.4. Are the regional stakeholders able to identify needs and opportunities for innovation and entrepreneurship?
- 1.5. Is there a coherent, structured information management system/process that covers collecting, processing, disseminating and monitoring needs concerning innovation relevant information such as funding opportunities, potential partners, available know-how, technologies, etc.?
- 1.6. What is the situation concerning planning for development of new areas: 'soft' plans (procedures have to be started yet or are on-going) as well as 'hard' plans (procedures that are successfully finished)?
- 1.7. Do the entrepreneurs in the region show, compared to the national level, a commitment to contributing to the development of the local / regional society?



Question 2

What are the strengths and weaknesses concerning collecting, processing and disseminating innovation information (such as funding opportunities, potential partners, available know-how, technologies, etc.) in the region?

Additional questions

- 2.1. Do the relevant persons, groups, organizations and networks have access to the right information?
- 2.2. Is this access part of a structured (organized) approach?
- 2.3. Are the right stakeholders involved in processing information (based on need: representatives of authorities, enterprises, universities, education, etc.)?
- 2.4. How this process can be improved?

Question 3

What are the regional strengths and weaknesses concerning enterprises and R&D?

Additional questions

- 3.1. Are there individual enterprises with a high dependency on RTD?
- 3.2. Are there specific (potential) RTD high-performers of sectors or clusters in the region?
- 3.3. Are there any specific / dominant types of innovation in the region?
- 3.4. What are the innovation trends over the last decade?



Question 4

Is the final product oriented toward regional level?

Additional questions

- 4.1. Is the final product oriented toward national level?
- 4.2. Is the final product oriented toward export?
- 4.3. Is it in accordance to the main objectives of the regional development plan?

Question 5

What are the strengths and weaknesses concerning the role of the public authorities and/or intermediary organizations representing these authorities?

Additional questions

- 5.1. Have the regional authorities identified (potential) strong sectors, clusters and enterprises in the region?
- 5.2. Is the offered support coherent, complete and consistent?
- 5.3. Does the support effectively address the specific needs of new entrepreneurs?
- 5.4. Which stakeholders (e.g. universities, intermediary organizations) have the authorities actively involved in these support-processes and what are their roles?
- 5.5. Do institutions actively facilitate and stimulate the search and development of R&D opportunities based on synergy: win-win situations?
- 5.6. Do they effectively support identifying and addressing opportunities outside the region: both national and international?
- 5.7. Do they provide formal/informal trainings?



Question 6

Does your region have the capacity to attract talented people?

Additional questions

- 6.1. Which are the mechanisms through which the region attracts talented people?
- 6.2. How can these mechanisms be improved?
- 6.3. Who are the actors that contribute to attracting talented people in the region?

Question 7

Does your region have the capacity to retain talented people?

Additional questions

- 7.1. Which are the mechanisms through which the region retains talented people?
- 7.2. How can these mechanisms be improved?
- 7.3. Who are the actors that contribute to retaining talented people in the region?

Question 8

What are the strengths and weaknesses regional innovation-policy?

Additional questions

- 8.1. Is there an explicit innovation vision or is such a vision part of other documents?
- 8.2. Which innovation objectives are formulated?
- 8.3. If long-term objectives are formulated: are short and medium term objectives formulated for project phases as well?
- 8.4. To what extent are the SMART (Specific, Measurable, Acceptable, and Realistic) objectives specified in time?
- 8.5. Are regional plans covering all regional innovation issues?
- 8.6. Which (other) plans (technological, industrial, science, spatial) are relevant to RTD issues and RTD performance?
- 8.7. Are all regional, national and international weaknesses/bottlenecks, strengths and/or opportunities addressed?
- 8.8. Which organizations are involved (national, regional, municipal authorities, clusters/sectors of industry, individual companies, other stakeholders) in the planning and or the decision-making process and how?
- 8.9. How strong is the protection intellectual property?
- 8.10. How would you assess the quality of research institutions?

Question 9

How networks are organized (e.g. multi-disciplinary, enterprises only or sector only) and to which extent do the networks contribute effectively to innovation performance?

Additional questions



- 9.1. Are the networks considered effective concerning power symmetry, openness to new actors and ideas, creation of knowledge spill over and transfer to allow informal learning processes?
- 9.2. Are there present large differences between different clusters, sectors or individual enterprises concerning how linked / bonded they are to the region, why, and what are the consequences for innovation processes and performance?
- 9.3. Who is has the leading role in organizing various network alliances?

Question 10

What are the strengths and weaknesses concerning cooperation between stakeholders within the region?

Additional questions

- 10.1. How well (based on satisfaction and output) do regionally located enterprises cooperate with knowledge institutes within the region, regional authorities, higher education and, intermediary organizations?
- 10.2. Which stakeholders are leading specific modes of cooperation (science led, policy led, industry led) and how effective are these designs for innovation performance?
- 10.3. Is new cooperation developed based on the principle of added value and best solution? i.e. are regional partners chosen / involved because they have a clear added value for innovation development and actually represent the best option for cooperation (compared to potential partners outside the region)
- 10.4. Have key actors (individuals and organizations) been identified?
- 10.5. Are key actors representing all main innovation relevant stakeholders such as universities, authorities, enterprises or civil participants?
- 10.6. Do key actors operate within different contexts (mix of informal contacts and strong attachment, different networks) to allow quick identification of innovation needs and market opportunities?



Question 11

What are the strengths and weaknesses concerning cooperation between regional stakeholders and parties outside the region?

Additional questions

- 11.1. Is new cooperation developed based on the principle of added value and best solution? i.e. are extra-regional partners chosen / involved because they have a clear added value for a innovation development and actually represent the best option for cooperation (compared to potential partners inside the region)?
- 11.2. What significant differences are there between different clusters, sectors or individual enterprises concerning national and international cooperation and what are the consequences for innovation performance?
- 11.3. How does cooperation with (and regional networks involving) others e.g. universities and intermediary organizations stimulate and facilitate access of regional enterprises, clusters and sectors to national and international collaboration?

Question 12

Do stakeholders trust each other?

Additional questions

- 12.1. What is the role of trust for the interaction outside the region for innovation process?
- 12.2. Can trust between relevant stakeholders be perceived as an important or not so important component for the innovation process?
- 12.3. How trust between relevant stakeholders be improved?

Question 13

What are the strengths and weaknesses of the culture and attitude of the population concerning creativity and entrepreneurship?

Additional questions

- 13.1. What are the national characteristics of the population?
- 13.2. Are they e.g. trend-setting, early adopters or do they have a rather conservative attitude?
- 13.3. Does the mentality of the population in the region deviate from national characteristics?

Question 14

To what extent do the regional attitudes / culture enable the learning processes in the region?

Additional questions

- 14.1. Are organizations, clusters, networks, groups and individuals willing to develop, try and adopt new approaches (technology and routines) even if current results are satisfactory (e.g. always aiming at continuous improvement)?
- 14.2. What are the main characteristics of regional attitudes/ culture?

Question 15

Is competition seen as a positive or negative value for innovation process?

Additional questions

- 15.1. Is competition necessary for innovations?
- 15.2. Do you consider that reward is necessary for the innovation process?
- 15.3. What is the role of solidarity for the development?

Question 16

What is the role of globalization for the innovation processes?

Additional questions

- 16.1. How globalization affects the innovation process?
- 16.2. Can you name the positive effects that it has on innovation processes in the region?
- 16.3. Can you name the negative effects that it has on innovation processes in the region?

Focus group Slovenia

Do future changes have to rely more on the emphasis of the development of technology?

Resp4. Technologies are developed, whether we need new technology or just implementers?

Resp3. I think it's more important to create

Resp1. I will answer for the implementation of new technologies extremely important, and it creates some supportive environment with which the tut can implement, the pods themselves will not be able to handle everything micro and the small company does not miss it

Resp4. I also agree with oscillating paradigm, the development of new technologies is very important, but whether or not we are losing the idea that basic knowledge is again developing also very important integration into the regions. As a faculty, I can stagnate over the base of the paradigm we are trying to develop new technologies to the fundamental network

Resp1. The development of new technologies is its mandatory for implementation. When you start to implement the technology, bring some knowledge ... that you can then reach new technologies

Is it important to a person to think up new ideas and be creative?

Resp1. Very important

Resp2. I would also add the critical thinking

2. *Please assess the level of innovation within your region?*

Resp1. It does. If to rate from 1 to 4, it's 4 definitely. There are many innovative companies in the region that are innovating on the basis ... without the innovation in the region it wouldn't be as successful as it is



Resp3. Since the large part of the national part of the added value is produced around here I think it is a strong innovativeness

Resp2. It is also important that innovation are recognized on national levels. Innovation from the region

VC. What would be the strengths and weaknesses of the capacity of the region?

Resp3. Focus on automotive and pharmaceutical

Resp2. A strength is the high end value. Weakness – lackness of micro and small enterprises. Mostly we are depending on big companies

Resp4. This the previous weakness, I guess

Resp2. At the moment this is not a problem. The problem will be when something will happen with the big companies. We have 4-5 very important companies for the region, and the problem will be when something will happen to one of the them

Do we have people for small and medium companies? It's a challenge. I am asking because the employment level is relatively high, how to have a sector of small and medium enterprises, what thing is competencies and another thing is to actually have the people, to work in this companies

Resp3. I think most people prefer stable jobs, as opposed to be entrepreneur .. so I see a bad thing. Schools teachers moved, they could be entrepreneurs

Resp2. One challenge of employment, you have a lot of overeducated

Resp4. not properly educated

Resp2 This is the biggest problem, and we have lack of engineer. And this is the problem, because our industry is basic industry, with engineer companies, and we don't have enough. If you ask for engineers, nobody will be out of job, only if ...

Resp.1 Only if he doesn't want to work

Resp2. Yes, this is the problem

Resp5. Sorry to be late. I am coming from the automotive industry and here something happens around. Yes, as mentioned we just have big companies. The fact is that also in Europe, the most purposive innovation companies are the big companies. 70% of all innovations in Europe, is coming from the automotive sector. It's surprising, but it is a fact. 70% of all patents and innovations are coming from the automotive sector, no pharmacy or IT or something like that

Borut: In IT it is even problem to have innovation, especially in software. You can't patent software

Resp3. IBM has a lot of innovation, but they are not in Europe, so this is the biggest initiative

Resp5. And if you look at the structure, because we have our own regional chamber of commerce, and every year they have a tender for the innovation in Slovenia, and it is very easy to see who are the best innovators every year with golden or silver prizes, and the effect is that the biggest innovations are coming from the biggest companies. The fact that they have the capacities to



support the innovation process. Not only inventions, but all that product that comes to the market, that costs a lot of money. It is not easy for the smaller companies to do

Resp3. There are many things that can be drastically improved so it's definitely not a 4

All agree on 3

3. What are the strengths and weaknesses concerning collecting, processing and disseminating innovation information (such as funding opportunities, potential partners, available know-how, technologies, etc.) in the region?

Resp3. We have an environment in the business incubator, which offers some support, which is not as good as it could be, as good as you could see somewhere else. But there is definitely some support, and the ecosystem it is very small and mostly limited to the IT. Schemes are also present they have national tender or finances but again it is not freely available that one can really on. It is some time available for some. There is some ecosystem but developed on the EU funding

VC. So it would be more closed information than rather everybody would have access to it?

Resp3. It takes some effort to gather the information

Borut: what you think is the case?

Resp3. I think it is the case that we still did not finish the transition from the former socialist economy. The economy is still socially, but the thing is that is affected by those times and the system

Borut. Would this be structural economy, as mentioned big companies, and big companies have big resources. I don't know a company with 10.000 employees can afford to have 1-2 people who are going just through this type of information because it benefits the company. Sometimes it seems that this type of support is not necessary for smaller companies. Could this be the issue?

Resp4: in the chamber of the commerce we have this type of information but as said big companies don't search this kin of information within the chamber of commerce, because they have their own information, strong enough. As for smaller companies, it is harder to get to them to tell them we have information, come and get it. That means that somebody wants to for us to make connection with the other companies, we do that. But it is not enough ...

Resp3. Advertised ?

Resp4. Yes

Borut. So there is infrastructure, but there is lack of interest or knowledge about the infrastructure?

Resp1. there is more companies that very often don't recognize the importance..

Resp4. Innovativeness process

Resp2. Supportive part. They think that this is something weak, it's not for us. Many times. And they ...

Resp 1. They don't even think about innovation, because they don't have any interests for this

Resp 4. Usually they are only few people working, and they don't have time to deal with papers. But if we are looking for some calls to even try of course

Resp1. There is huge administration out there, they get some money. This is very small amount, there is no sense for them. For example, small calls in the Horizon, they get 50.000 of euros and for that they should have a huge administration. And in the end all this money goes to the company that specialize to such tenders

Borut: but the general information is this about communication between big companies, actors and so on? As far as you could observe of course

Resp3. It's public

Resp5. Maybe there is some weakness. For example in the automotive industry, we are not the producer of the vehicles, we are the producers of some parts, supplier of the chain and our innovations are often connected with some technological and it's so easy to make a lot of entertainment or even to prepare patent documentation, because if you like that you should some pictures, in that way you can disclose the main idea in this innovation and we don't like to do that. And very often we cover this innovation by not showing around at all

Resp4. Also in the expense of protection of these innovations is very high for small companies and the process is very long, so at the end of the process maybe you already change your products so many small companies do not decide to apply for the patent or model

VC. Maybe because they don't have the resources to go through the process

Resp4. Yes, also the financial resources

Resp.3. Do your patent doesn't function yet?

Resp4. No

Resp. 2: for some companies not, because some companies are thinking in that way. The technology is developing so fast. So if I make patent one thing, the competence will overdrive me somewhere else. So it's better to bring this kind of this new things, not to spend time

Resp.4. you can have your patent in Europe, but if you want protection, you have to make your protection in each and every country, one by one. And this is very expensive

Resp5. It is interesting the topic of patents, I am also a member of the national research and development agency. I am a member of the board of that agency as ARRS, as Borut used to be, and at the last meeting we discussed about the patents, and this future research they realized that the number of the patents has gone down, and we discussed about that. The fact is that in the past it was very popular especially for the research institutes, not for the companies, to make some research, some .. not innovation, to prepare some ideas and to patent it immediately. For that it is very expensive and they have the public money for that, but they spent a lot of money for that. But there is no income as the result of the patents. And now it is not popular anymore, and the number is declining. None of these institutes have been successful selling their rights ... marketing

VC. How it could be improved this process of dissemination?

Resp.2: I don't have a solution

Reps5. The idea about those tenders of innovations, the regional chambers of commerce it is a good idea maybe also at the national level. Because the winners at the regional level they can

compete with this innovation at the national level, at the national chamber of commerce. Maybe also at this national level would be a bit more that something, national prize, not just the national prize of the chamber of the commerce, but a national prize for innovation. Every year there is an event, but this is only a one day event but afterwards everything remains the same, maybe it could on national tv or other media to prepare more information about those innovations. There is a brochure every year, one page for every innovation and that's it

Resp 4. It was on the national tv and national newspapers, two years now the national award

Resp1. Are we talking about popularization of this or are we talking about support environment ? if we are talking about the support environment, the leader of the regional agency which will have some steps

Resp2. The chamber is also there very important, because the chamber has a very good model for promoting innovation. This is very good, and the promotion is better and better each year, and also more and more people are aware of the importance of innovation. This part is improving and is getting better. The second part is how to help small companies how to make a patent or something like that. And here are the financing, this is the problem. Because nobody will finance you to develop that kind of surrounding to make a promotion to each companies and to help the company how to make a patent. I think, I don't find a good case in Europe so far. This is the question of money, because supporting company needs money and country, the state doesn't give money for some regional

Resp5. It's about 3 old information that in Slovenia it is around 400, institutions, body groups or other groups of people and companies which only support the innovation processes. Altogether 5000 people employed in those 400 bodies. They are not innovators, they just support innovation. Can you imagine how much money ... at the beginning it looks a new idea, great idea to organize new institutes, new department or whatever, but at the end of the day, they have money for their own salaries, nothing else. And there is no money for real support of the innovators. 5000 people they have job, but no outcome. But is very spread all around

Resp 1. I think that at the basic level we have good information, which does not always arise to be used at random, there is a problem. This is what the Chamber of Labor is doing is a good promotion, regional and national level. But as the final product, how to get a micro-little pace, did not start a more intense thinking. With innovation, there are no 2 cleves. Then there are various technological institutes, what are technological patches. We are in our area, they are not. 4 developers in NM are 4-15 employees, which is a mistake. The innovation deals with 1 - 0.1. At the level of the 2 institutions, we are together, we are not the most representative of the most representative intuition of technological innovation in the region, which is not in correlation with the number of support. I need to focus more on the willingness to get 10 all the general knowledge that they know nothing, we do not find any specialist that would know really some good advice to help

4. *What are the regional strengths and weaknesses concerning enterprises and R&D?*

Resp4. As we already said, there are few big companies, that have very developed R&D departments, so they are drying this region.as for the smaller companies, we really don't have a good insight, but usually there is from 10 people, one is trying to work on something costly effective and it comes innovation out of that. It doesn't have an r&d department so ...

Resp5. The other problem, the weakness is that e don't have faculties with longer tradition or university, and most of the research and development is done at the universities and institutes, and all those universities and institutes are mostly, 90 % the capacity of research are concentrated in Ljubljana, in center. And the never had the idea to establish a department, or

laboratory, in other regions. In the past the machinery faculty,- mechanical engineering, they used to have one programme here, teaching (study) programme, for 30 years. But they never had the idea to establish a laboratory here, or something like that, just close of the factory, never. And now after 30 years, they're gone, because we decided in the region to establish our own faculties according to the needs of the economy, or industry. And now they are gone, we have other institutes, in Ljubljana, a lot of them, nobody had... they didn't have the idea to do that in this region, so we don't have a research and development capacities that are directly supported by the public money everything is concentrated in Lj, some of them in Maribor, but very little in gorizia, and now

Borut: we actually get a lot of public money at FIS, but from Europe

Resp5. New story, new particularly, that started about 10 years ago, establishing at FIS, and m=now faculty of technology, and faculty of industry and engineering. All of those faculties are at the beginning, we are still in the kindergarten

Rep3. We don't have big expensive research equipment, except of the HPC at FIS. There have been very few public tenders in Slovenia that would have allow the purchase of the infrastructural research equipment

BorutL now there are actual no in this national perspective

Resp3. We get research money, but it is basically for salaries, and it is not really to buy expensive research equipment.

Resp1. We have also HPC machine, for 4 years now at the faculty of technologies and systems for engineering, but we cannot do anything in the region. This is the second problem. We are private, we cannot apply for a public tender, for public money. We are always treated like private, and it is very hard to get public research programme. We have some capabilities here, but maybe we are not smart enough to collaborate with other parties. The things that we made huge progress with, in the last years and we are going in the right direction, but still I see a lot of problems

Resp3. The enterprises mostly depend on their own funds, so unless they have dedicated funds for research. I think it is very good because, the money is well spent like (DPV and KRKA), the results are very good, given the actual business results

Resp5. The fact is that KRKA the pharmacy industry, they invest in R&D more than all the companies in Slovenia. I think 1/3of the money for R&D

Resp3. It is very good for big companies, but ..

Resp.5. It is very good for big companies, but not so good for small companies, and not good at all for universities and faculties. I mean not good at all for the public money. We spent and pay a lot in the national budget, but we don't get ..

Resp3. There is 1/3 of national research funding being generated in spent here so..

All agree on 4

5. Is the final product oriented toward regional level?

More exposed to export

Resp4. Region is very export oriented



Resp5. especially the big companies are 90%. The orientation is international

All agree on 4

6. What are the strengths and weaknesses concerning the role of the public authorities and/or intermediary organizations representing these authorities?

Resp 4. Lack of financial resources, I think this is the biggest problem. Because this financing is not systematically organized. Severopretmorska is much better case than Prekmurje. Prekmurje is linked to bankruptcy stories, and is marked with crisis of regional development agency

Resp 5. I think that the weakness of that is that all funds national and coming from Europe, Ljubljana wants to have the whole influence on that money, the centralization. Slovenia is formally divided into the western part and eastern part, but the fact is that all this money is coordinated and distributed by Ljubljana. About 2-3 years ago when there have been prepared new programmes till 2020 we were very optimistic about the preparing of the development also of the new programmes in this regions, but at the end of the day, all those programmes have been merged into some national programmes

Borut: the good programmes went to the west, and now we are left with the left-overs

Resp 5. I would say 1 because we really don't have so much influence, but it was promised at the beginning. Now everything is coordinated from Ljubljana. At the end of 2020 there will be a huge problem because we will not be able to spend all this money for the eastern part. I know what is happening after that. How many they will spend for roads or highways, railways, and things like that

Everybody agrees for one

7. Does your region have the capacity to attract talented people?

Resp5. Yes

Resp4. Yes, it has, but ...

Borut: OK, you attract people by offering the opportunity to work on interesting projects

Resp4. By jobs

Resp2. The region is different than NM, NM is very attractive but in the end it doesn't show this in the figures. The population is growing very slowly, growing but slowly. The situation in the region is the opposite, especially if we look at the two sub-regions, are the depressive part of the Slovenia.

Borut: how do we attract people? Are jobs enough?

Resp4. No, also the opportunity to leave

Resp3. Quality of life

Borut: is NM which is the economic center, is it attractive for talented people?

Resp3. There are jobs that are ok

Resp2. I think

Resp4. It depends on age, maybe for someone who is 30 years old is not attractive enough as for someone who has 40 and more, and has children, I think our region is more attractive

VC. It is in a way lifestyle, opportunities?

Resp4. Safer

Resp2. For me we have Opera, 50min away, we have a stadium for football, basketball, also 45min away

Resp3. But everything is by car, we can't sit on the bus that goes every 15min and go there

Resp4. You should go by train, it will take half of day

Resp5. The education is also very important, I think that we have very good basic education, high-schools, gymnasium, technical center is also very good. In the last years also good opportunities for the faculties. Quite a lot of people who wouldn't study in the past, who didn't try to move to Ljubljana, they started now, started with the study

Resp3. Because the jobs are bounded, the housing prices are also high, it's not good for someone to come here and start looking for a job. One has to find a job first and then come here, it's kind hard ..

8. Does your region have the capacity to retain talented people? 1h 08"

Resp3. Best students still go to Ljubljana, some Maribor and many of them stay there.

Resp2. Still retaining where? In Novo mesto we are retaining them very well, in Belakrajina not good at all

Res1. We are working very hard

Resp2. Yes, but how many people from the region there goes

Resp3. The talents

Reap2. How many people will be there newly employed

Resp1. If we can think of this, we will have enough self-critical primers enthusiasts in Slovenia with January, he has to go to the service, Celje, Maribor, I do not speak Kelner ...

Resp3. Good salary, education

Resp1. So, there is one such zone or some touristic ... There (the other region) industry is ... something is happening. Companies here ... have a lot of ideas about what's going on

Resp3. If we compare to the rest of Slovenia, it's a 4, if it is Silicon valley ...

9. what would be the strengths and weaknesses of our regional innovation policy? Does one exist? Is it a national one?

Resp3. We don't have a regional government so there isn't a regional policy.

- We don't yet have an innovation policy



How much do we have of our own abilities to do anything for the regional development programme? It's been years since we ..

Resp1. We have a regional development program, although this is a nice, indifferent set of projects that are known, not directly for the region, research and innovation, directly connected to innovations, but then the set of projects is in the murder this is not a favorable partition ...

Ideas, no executive power

Resp3. There is a strategy for me, a centralized domain of some form, capable of doing this, some ideas written for the strategy, but it did not evolve at the REC at the fate of years, that is, the more eyes

Resp1. The Center for the Development of Research and Innovation, formalized the pac based on this RDP, here work is working, it would be ambitious to have one strategy

Resp5. It's a huge problem also at the national level we don't have innovation policy. Right now there is a discussion with Ljubljana at the national level how to incorporate innovation in a new research& development and innovation law, because we have only a law about research. And in our research and innovation strategy in Slovenia there are strong guide lines about establishing central innovation policy but there is no policy.

Resp3. So it's fragmented.

The score is 1.

10. how networks are organized and in which extends do they contribute effectively to innovation performance? For example enterprises are connected to different sectors, are open to new actors to enter the game and so on.

Resp5. We can put entrepreneurship incubator, that's a good network. Also, our company (we are a huge company) we've got an excellent partner from that incubator and we do a very sophisticated program together HGB automated candid vehicles. So there is infrastructure. We have many different networks. I think this part is ok.

Resp2. Also big companies have a lot of small companies that work for them and they try to innovate all the time

Like clusters?

Resp2. Yes, they have to

Resp4. It can be improved, but at least 3

The score is a 3.

11. what are the strengths and weaknesses concerning cooperation between stakeholders within the region, between key actors, representatives and so on. For example how the academia cooperates with the state and with businesses?

Resp 3 .There is cooperation. We have people from faculties participating in entrepreneurship, innovation programs, lecturing for companies, we have joint projects. I think that the regional cooperation is really good. We don't have ivory towers

We can't afford them, Ljubljana won't pay for them.

Resp3. We have to cooperate in order to do a lot

Resp4. We have, but I t could be much better.

Resp5. And also some representatives from the industry the members of some boards of some institutions, as I am a member of a management board that , research agency, I was delegated for my membership there was coming from the regional chamber of commerce, and then was the national

If we're talking about the government in Slovenia we instinctively think about the national government. How is the cooperation with the local governments, because here we have only regional ... Because we see that you don't need municipalities, because of the system. How does it work? In which fields do you cooperate the businesses? We know higher education, but we need in which the businesses cooperate with the municipalities? Is it like permits for land?

Resp2. Yes
The score is a 3

12. how about the cooperation between the regional stakeholders and the partners outside the region? Do usually key actors cooperate with somebody from the other part of Slovenia or from outside of the country?

Resp2. We, the chamber of commerce, we do cooperate with the national chamber of commerce. And with other regions in this competition for the biggest enterprise in Slovenia, so we do cooperate with them

Resp1. Our director is also a member of the automotive management of the eastern research and innovation ... CDI

Resp4. another projects, bigger projects are from other regions

Resp1. Dekan je član univerzitetne

Resp2. Also the companies from pharmaceutical industry, they have to cooperate with the institutes outside the region, in order to save money. So in a way they have to cooperate because within the region we don't have institutes. It's for their automation

So the cooperation of the cooperation regional actors with the outside the region

Resp3. But if the national stakeholders is also national government, it's not so great

REsp5. I recall that the national authorities they do not understand that this region as a partner, as we discussed. That this region is not a priority at all at the national level and they do not listen to us

Resp2. As we have such good the don't need ... they have to work with companies, because they partially finance them

The score is a 3

13. do stakeholders trust each other? The key actors that are dealing with the innovation processes, do they trust each other?

Resp2. Within the region, yes. Outside the region ... (nu prea)

Resp1. In general yes

Resp4. There are specific problems

Resp5. the companies at the industrial level are in good relations and also the bigger companies are not competitors and they don't have any problems with sharing information or trusting each other. That's a good point. Otherwise business is the priority. That's good that we have different type of industry here

Resp2. And others should learn from the industry

Score – 3.

14. what would be the strengths and weaknesses regarding the culture and the attitude of the population regarding creativity and entrepreneurship within the region? Do people want to be entrepreneurs?

Resp2. We were not educated in the spirit to be creative, at least until 90s I think

Resp5. people are creative but on the other side they don't have much entrepreneurship experience. People are creative because they have to survive and this region is not rich in natural resources. I think they are creative people, and also in the history we have few very strong ideas, but in the end the automotive industry here ... we have a very strong idea, and also realization. But in the end we don't have enough SMEs, this is the problem. But people are creative

Resp1. Whoever wants to deal every thing is a creature, it must be creative, an Internet based component. Its innovation is to be the same under the roof, what other area of NM is not needed (the new institute), people will be a service, but something is going on. If he loses his job he will

not be off the road, he will look for a job to get added work because he is already doing an extra job

Resp2. Grey market

Resp5. identity with a high level of creativity. first of all they prefer to work and they are not lazy it's a 3

15. to what extent do the regional attitudes and culture enable the learning processes in the region? For example, people's desire to adapt new approaches, new themes?

Resp5. They used to be very adaptive. For example 30 years ago companies that came to Novo Mesto were prepared to learn French, new technologies, everything, and are very adaptive. Now they are ready to learn English and maybe German, in KRKA they are willing to learn Russian and new technologies. I think they're quite adaptive. Also the biggest high school center in Slovenia is very technical and industrial oriented

If I may add, I see a difference between a person that is teaching a thing in Novo Mesto gets a much lower score than the same person teaching the same thing in Nova Gorica for the simple reason that in Novo mesto they are interested in technics, and a lecture that is highly evaluated in other environments, is not positively evaluated here, because of the background and the interest of the students. So we have to change these courses. To adjust them to these interests. So this technical culture you can feel it as a professor

Resp3. There are several strong technical middle-schools, high-schools for 30 years so is very strong

- Score - 4.

16. can competition be seen as a positive value for innovation processes?

Resp5. Yes.

Resp4. It's crucial

1h26min25sec - 1h26min40ec

so competition is important?

Yes.

Ce negodo bo ispotazil konkurenco, to je za nase regije

Score - 4

17. what is the role of globalization for innovation processes? What would be the strengths and weaknesses of the process if globalization?

Resp2. You don't innovate if you're not there anymore, you have to innovate to be successful

REsp5. The innovation is the key driver in the global market. You can't compete on the global market with the people get low salaries but you can compete with better projects and better solutions

1: what about access to knowledge?

REsp2. Access knowledge is bigger

Resp5. It is used

Score 4

Resp2. If you take out the two biggest companies in the region, the region is very empty

Resp5. In the the term of innovation there are 3

Resp2. They have great influence on the innovation in the region

Big companies had to travel to Bosnia to attract. It is the same now (Resp5)



Resp5. I think now we are at the same position, we need people from the other parts, ex-Yugoslavia is very good back-up for us
The cultural incompatibility isn't big so
Resp5. Yes. We know each other

1.29H

Resp4. We have different perception of economic capabilities of salaries. If we have work proposal for Bosnia for example, but are you satisfied with 600 euros? But not people from other parts of the Slovenia

Resp3. So it's labor for lower paying job

Focus group United Kingdom

18. *Please assess the level of innovation within your region?*

a. By the region would mean Cumbria itself?

b. traditionally, I am aware that the government has publishes something, years ago ... I think it's a low score for innovation in terms of geographic regions

c. the context is that cumbria, the region is very big, but population is very small. So there are less than half of million people here, that live in the region. The region before 1974 used to be 3 sub-regions, sub-counties, so Carlisle were we are, is the sit of the natural, the heart of the economic development, and the government is one end of the region which traditionally is not the greatest situation being at the beginning used to be in the middle, so when it has to do with the second largest town which is called Barrow, but two hours away, which is a long way in the UK, you can gel long away in two hours, you can get certainly to Manchester, so the linkages have been traditionally very weak, so they are only forty years old. But Surrey has been here for



thirty, innovation linked to academia often, and the weakness we had in this particular sub region is that only recently we only had a level of academia that is makes. There were some attempts to start it over a period of time, but it's only now what are embedded down, something that can be judged as academia. So I think it's only in the last few years it is matter really again, Carlisle lost to be a university years ago and it is at Lancaster, and that's because of the public, of the people. In some ways it lost out creating the university there, but everything that started innovation is that for a long period some of the largest employers were vertically integrated in terms of coal, iron, steel, ship building, so there was a big employment there, but obviously not a lot of innovation but direct employment. So entrepreneurial culture is quite low so the two things that you would need to create innovation, entrepreneurship and academia have been weak, so the results out today have not been good

b. very interesting, in most recent times you've got business like energy and nuclear industries which become very innovative, in terms of innovation so there are good examples of what is going on

a. market innovation, along west coast you've got small engineer companies started to be involved

c. yeah, but particular in the nuclear sector, which is a very big sector, it tiered ones big operating companies, tiers 2s consolidated companies, large themselves, can have thousands of employers worldwide, but the real innovation comes at tier 3 and tier 4, the SMEs, but within that cultural self of a matter degree, the macro businesses have the innovation. that's where the other tiers look for innovation, down the SME sector

c. it's the renewable energy sector, as well as the ship building, you've got some small companies preparing in the submarine type

b. but that's now technology, shipped beyond regionally, in twenty to thirty ago they may have span out to big local businesses, supply direct to the ship yard because they've seen innovation and go out to commercialize it

a. there is the other side of this tourism and farm based, that's been traditional structured, there is some innovation on that side coming as well.

b. I think food as well

a. food, yeah, the column is that we have worked with major suppliers, max expenses, other big boys and some local companies are really started to find and a different way to the market place

c. I think that the part of the innovation in food, is extended the life of the product, because that's terribly important if you're exporting it, and not UK or parts of Europe. If you have a product another year, or days it's much richer

a. I think that at the end of this is the food supply chain, try to find a quicker way to market. It seems to be a kind a fight against the traditional food supply market and there people to track. It always come to the life style of this sort of things. They choose to come here because it is good life

c. I think the innovation in the food chain service is quite interesting, because it goes with science and moved to artisan area, and people want local products, where as twenty years ago it wasn't important. Places like here you can have a carrots tomatoes, cow and the goats everywhere and produce the milk and it goes 800 miles before it comes back, that was before it comes back to the supermarket.

a. Premium Bisket is a primary example make this here, exploit down to Manchester and comes back to Carlisle, it's the way it is. I think that the food sector is the one that could be more, we are more innovative

c. We are going to get services soon from the Carlisle airport, which will mean that we will be able to export food and import stuff as well, more easily, more directly

a. There is a group of business that are linking together, apart from the obvious nuclear and energy, there is another group of businesses that started up

b. The other thing is bringing funds to encourage innovation, to get some financial and business support. So that's an indicative, step change in the recent past

c. but that's quite important, because once the funding is there, it's all valid good and the funding will roll out and will drag innovation continue or it will be because just was there



a. what are actual the number of firms, just look at the drop of innovation that has come from there

c. I think efficiency if goes along with that, because it's certainly it's a number of time when two managers at business, flight out to Baken because Baken, and on the way back only one of them is going to survive, because some of the efficiency was in there. Take homegrown innovation, I think you can get homegrown innovation as well, because you are taking talented people who don't want necessarily see the world, but to remain here. Weve got a lot of home talent, home grown that will work in that particular phase like, and all of their energies would be to improve a lot.

c. I think that innovation is not promoted, because people think that there is no innovation here, but we have discussed that there is a lot innovation here.

c. It has to be linked to a strong academic institution.

a. But the traditions of innovation have stocks here, but I think the very fact that businesses can survive here, they have to look at other places

b. It's an interesting point, but we have an extremely good survival rate for SMEs and micro

a. Probably 2, if you look at innovation as innovation, and the survival rate, then probably it's a two

What are the strengths and weaknesses concerning collecting, processing and disseminating innovation information (such as funding opportunities, potential partners, available know-how, technologies, etc.) in the region? 13.40

c. I think Cumbria is a branch economy, in the main. So for all of that some of the largest companies we are talking about have to seek this kind of cooperation. I think that's becoming more difficult in over the time, because if you look at innovation you look also at research and development. In a different generation a lot of those functions were taken away from places like Cumbria, and become the head of this function. Usually in a metropolitan area, that just happened, so places like Cumbria, were production area because of the costs associated to that, but somebody more clever to think within the business, including market finance, he got more traditionally places like a rural area, they were in a metropolitan area

b. that's probably lead to the fact that at time it wasn't the university innovation and professionalization that goes with that, and that people wanted to work in micro environment probably to degrees, professional qualifications

c. For a while there was Science Technology park, out of 30 miles away, the only Technology part in the UK that wasn't linked to the university. So how could it really be a science tech park, it called itself that ... When it just opened it was just a business park, but it called itself a science and technology park

b. because it is more close

c. because marie Exeter than marie currie, it was different from that. But things have improved over a period of time, and that's because universities have spread and come into the area not just at the undergraduate level, there's been some phd level work, and that without any doubts work, it is quite important to make that amount of mix, educational mix, which means we are not in the desert anymore, actually it's There is a lot of development in that field

b. I think that traditionally would be done through governmental agencies like university. Or media

a. we don't, or we didn't have that part of the media really

c. and we lost that transnational partnerships, you know doing with other European countries. I think we did a bit tenly 15-20 years ago, but I don't see to do much now frankly. That's a lot

a. we have to do more small scale stuff rather than large

b. because the evident is that not having a regional development agency, so it's very localized regions, rather than North - West or England region, were a quite few years ago, but this is what existed there was no scope for dissemination or information about research problems. So I think that is was happened actually. My perception is that the don't end up well across boundaries, geographic boundaries and it's quite a fit to get to work together

a. like you said Carlisle is at the end of ..



c. there is enough collaborative work there, and the notion of what we should be doing isn't there, I think we sometimes hear or see these pro-relations, that we should build relationships ourselves rather to be invited

b. it's true ... I think it's one

a. I actually I think it is in a wrong direction, it could be two but it goes toward one. A weak two as opposed to a strong weak everybody goes for one

What are the regional strengths and weaknesses concerning enterprises and R&D? minutul 20.23

b. we've mentioned already that small business have a good survival rate. It a strength of this area, of this region

a. it's a push factor. People that want to stay here have to do by themselves

b. and there a very limited inequality in the area. It's only 4000 in the area, there is low level of employment, isn't it? There is a in accordance to national level, an increase in people settling a business, SMEs, that were pushed out of other jobs, other sectors

a. speaking from a perspective, there is a network of people at a certain age that just to deep themselves and happy to talk cross-sectors and help each others. And I think that networks grow and I have to say that when it comes to county

c. I think one time, until 10 years ago at least, export about the most because what the higher education offered outside of the county, not very attractive and going from the rural areas to the cities, good northern cities, and it was to the north mostly from the south, attracting them back good jobs, a variety of jobs that's been difficult. But as said now, we've got ways of people coming back to our areas, so we are gaining some of those. I think one of the best that's happened is that is more permission now appetencies, appetencies with what has to do an enterprise. The high level of appetencies is good for those people that are clever, but want to stay home, but maybe don't want to leave this place. But that actually can go right through here eventually, but staying at home. I think that there was the realization that Kickson is doing just great, an entrepreneurial, I think that there more opportunities now can be "enterprisy" within a paid position, so you can be a work force, but become "enterprisy" without being an entrepreneur. So I think that releases that the are a number of sectors, particularly the food sector where people can do that innovations and can those enterprises, different cost entries. Yes, it is a natural back drop format

a. do you think (name of the company) helped to push into entrepreneurial activity?

C. I think it made them going to diversify, I think that's heavily linked what (name of the company) activities is looking at services used and the activities supply within your group

b. and did for the floods it apply? Is it innovation, cause people come

c. but it does bring together communities, so it does much more local purchasing, much more ground loyalty associated with local products, and there is a better dynamic between the people

a. and that's encouraging. We look at how people learn that acting together get things done quicker

c. (name of the community) very very strong community as results of that. And it doesn't extend just to be friendly, it means that are very supportive on the projects in the area under, under reprise.

a. it's almost creates a sense of place, a stronger sense of the place. I think it's Scotland ..

c. the northern you go in this country, the stronger the sense of place is, so ...

cv. maybe some weaknesses?

b. the strips of that is not looking necessarily at sides of the regional boundaries, national or international export. My perception again of the recent, good examples of good export companies. You're talking about UK TI, industry. That's the impression I get, Cumbria is not strong necessary on that compatible regions. And I think is that part (name of the participant) was talking about. We're comfortable trading roof, we call partners and later ... are not necessarily to rule the world



- c. and that market is limited, by our affiliation, so the near market is ambiguous as well. This is not a natural place to settle a business, exporting to Europe, because of the transport network. Anybody who is exporting at the moment is, I think very good
- b. until recently as well, connectivity ... IT connectivity, internet is poor as well for the most out of the county, even for Carlisle city few years ago, and that's again to hinder ...
- c. If we had in this county, high broadband, wifi roaming as well, I think as out of the county, this would make this county very attractive, very competitive because a lot more people that want to work from home
- a. yeah
- c. and do lifestyle based on this, and could compete, and if we can get to that stage, we can't be far from that, it is entirely possible
- b. certainly it is important, that is so key, matter to the most of core of broadband, most effective thing can do everything
- cv. "talking about internet in Romania and Moldova and that it just gets what is best on the market"
- a. the (name of the company) is just upgrading, couple of wires. My internet is coming with a telegraph box and is leaning like that ...
- c. you have a telegraph box?
- a. less than a megabyte, probably 250 kbs ...
- c. that's quite low, isn't it ... so that's a big driver in one way ... because tourism being the sector in Cumbria, but modern tourism needs to have big bandwidth and mobile technology as well with it, because it's demanded by the young people
- cv. score for enterprises and r&d?
- b. well the enterprises is quite high but the r&d I would say is lower
- a. enterprise high, r&d low, creativity would help both
- score 2
- Is the final product oriented toward regional level?*
- b. I think in Carlisle it is oriented more regional, there aren't any examples matching to national products, in terms of ...
- a. yeah, if you have this sort of multi-class, socially it does not produce anything
- b. it is actually, but we don't know what it is
- a. and we can't export that yet, but we would like to
- c. submarines, one billion pounds, we make new pounds athletic shoes, we make a lot of things, we make tires for automotive a lot of stuff that we make, it's original equipment that's actually going somewhere else for the process. We're dragging that party now, we are producing more finished products we have ever did and that's because efficiency isn't so important. Cumbria is lacking efficiency within the area. But it's traditionally being that branch plant, targeting the industry where we ... for a lot of companies they make (name of the product) ... that sort of production
- a. it would be going at least nationally, but it wouldn't be
- c. the food sector, it is again spread upon, because in the UK we have regional consolidators for food, so you take it in a service center, which is usually beside too much wise, we deliver into there and it goes out the so it's been more regionalized now than it was, don't have to deliver point to point, and then you can deliver it locally. We have very big logistic operators in Cumbria, the biggest independent that does a lot of carrying
- b. it is quite a big field to distribute in the area
- c. it doesn't have to say to regional level, a lot of goods that we have in the UK are imported now, huge numbers of imported, you know that clothing and that ... Some of the products we anymore in the food sector, we are good in food and drink, are going nationally. They might be going regionally, but it's only because the way of distribution networks are such. They are for national consumption
- a. most of the small-medium manufacturers are all exporting, at least in this area, and many is to supply Cumbria. Because the market is not there we don't have to export outside of the area



c. I think that it is something in a two years time (it was a three now) but is heading in the right direction again

What are the strengths and weaknesses concerning the role of the public authorities and/or intermediary organizations representing these authorities? Minuta 37.11

c. nothing local based, it's certainly national or comes regionally from the academic base. It's nothing inheriting in Cumbria, no local funding towards

a. there's what you gets to buy local

vc. Some support of R&D opportunities, formal and informal trainings for entrepreneurs ...

a. we do a little bit of that

b. we do, but we don't qualify for that (if university can be qualified as state organization in this context)

c. you got to draw their national funding packages

a. a lot of programs we run from national funding, but they still owe you or was ... the college would be the same, it would be qualified as outside the public sphere

b. so how can city council can offer support ...

a. there is little council from there

b. the Burke council they used to do, when I started to work back in 2010, I was aware that there was some funding from local councils for business supports, that stuff, they've put some money, but that was before

c. it all disappeared

b. it was before all crashing ..

c. since the demands of the regional development organizations since 2010, money has grew gradually, so any money that has come though has come from head offices, large organizations, if look at Nuclear sector, it's government owned, might be called a limited company, but it's actually government owned and it's difficult to categorize

a. they do are trying to some support for entrepreneurial activities ...

b. limited

a. but it's limited. But that doesn't mean that they don't want to cooperate with ... things are happening

c. it's gonna be low ... well 1 is low

b. 1 is a lonely number

a. yeah

It's a one

Does your region have the capacity to attract talented people?

a. the right of talented people .. I think you like the ones Carlisle makes .. It does

c. it does, because it has a fantastic lifestyle attraction. The problem is attracting the spouse partner to opportunities that goes there, because it could be a very attractive job there, but we got a level of supported jobs here, a teacher or something like that might be a spouse partner at least in the theory. We got a very attractive environment to attract people to, it is a very safe environment

b. but there is a counter side which is, in terms of the area landscape which are attractive ... career development wise it is not so attractive. You might find an interesting job and even might get it, but from where you actually get there in 5 years time or whatever. I think that puts people off. And certainly not the IT sector, I would have to go somewhere else, I would have to go to Lancaster or Glasgow, Newcastle

c. where do you live?

b. (names the place)

c. was that the lifestyle or was it a logistic a position for career?

b. it was lifestyle, I suppose. It was a case to grow family, you need to go out South-East. But I knew when I did it, I burn bridges probably to career, we are talking about that

c. that's right ... it is not that we are purple, the sea almost on two sides here, mountains as well and are more a long way from cities. And the academic opportunity would have to live in Carlisle, Eastern of Carlisle (names a number of cities around Carlisle) allows you to do what



just you said that, otherwise it is a big county, a big distance to travel. It is a big decisions, it is not a transect decision where you will say I'll do that in 3 years .. no.... There is North-South divide in term of house pricing and that's important as well, it's much more expensive in the South, in London to leave. So if you may move from South to hear, up hear you would get a better bargain of money. Trying to go back might be different, you may not ever want to go back b. that's right

c. but then you have to bargain opportunities for your sons and daughters

b. In terms of professional level, is Cumbria attractive, but you have to be the right sort of person who is attracted to, there will be a lot of people who will be attracted to and want to stay in big cities, or linked to number of big cities, not only Manchester, Liverpool. So there is counter foil to attract in the early

a. working in London for so many days a week that travelling will ground you down very quickly, even with the rail connections there ..

c. we got people who are high positioned in the county council here commuting every day, but that's part of the encounter, but there are few

b. we have people at the university coming out of Manchester, but they tend to go to Lancaster campus though

c. it is quite different to metropolitan areas, if you travel for 30 minutes here you get 50 miles, if you go to London you might go 3 miles. It is a scale about how you would that. It takes you I guess to travel to Wales

b. and I was in London last and it took me to get from (name of the place) to (name of the place) almost two hours, nearly as much it took me to get out of here to London. Just in time to get the right trains at the right time

c. certainty of journey times is the advantage create development, create opportunity for individuals moving around and partners coming into the area, technically professional clusters. It's a trade off, in a way you live anywhere , even in the valley there, really high quality of life and safe environment

b. for families it's great

c. what is the final analysis? Higher salary, higher goings in a city violence, tensions and so forth, their aspirations, more dispensable money from your occupation, and safe environment to bring your family. You made that choice (referring to participant B)

c. in the nuclear sector there a more people with degrees than any other part of North of England

a. it's the type of people they had to have it

c. yes they did, it could a four or something like that

b. a three

c. yes, cause the house went up

a. yep, it's a three

Does your region have the capacity to retain talented people?

b. it has, job opportunities

c. I think it has, we have just discussed that. That's the main drawback we haven't discussed the multidisciplinary stuff

b. there is a lot of big businesses

c. you know if you to city, if you go to Liverpool you might have not far away two-three universities in there at least, three home grown universities and more academic institutions, so the opportunity for development here not quite certain

a. for the person in enterprise firstly is the opportunities for their family comes to a point were it doesn't match with the opportunities of

c. it's interesting, cause what is your son's doing (speaking to participant a) essentially he could do it anywhere, and he could be living in a big city. It might be an ethnic?

a. I don't know...

c. I think that's part of the context as well, if you grew-up in a place like this, where you call it grown-up lifestyle and after all activities as well, it's not about careers anymore, it is about



freedom people, it is about if I am twenty I might settle down and something when I am thirty, why shouldn't I do it before that, why shouldn't I snowboard, my son went to play and English game called cricket, to in Australia, play two years instead of university. And why not?

a. do you think it is about this region, this area?

c. my daughter wants to be a teacher, a physical education, this week she's doing a placement, but in Cape Town, that's a commute. So I think for younger people it's more of a global, we wouldn't've consider that. She is only gone for a week, Cape Town is miles away But you can do that now, the world is bigger ... you know you would never come from Slovenia 20 years ago to a place like Carlisle, you know that. You would be placing a flag somewhere in the area. The world has shrunk, it is smaller, opportunities are there but it's not career driven anymore, job driven this is what I am going to do there. And who are we to criticize anybody who might be doing different

a. this south-west has gotten a lot of people to emigrate, because they see more opportunities there

c. I think yeah, if we compare just over the border in Scotland ...(51.30).. the prime mark people would killed it, it was bad but everybody was pilling at it anyway

a. on the agenda. A lot of school friends ended in Australia, because the don't saw opportunities in place like Carlisle

c. When I went to Allen two years ago to see, Tom Tailor, you might know

a. he was my best mate (sarcastic)

c. and I wait, two out of three shops were closed and that's the first time I've seen the flip, the bruises are suffering from it now, absolutely deserting, closing, R&D facilities are closing down

a. this is the nearest smallest town

c. But this is a region center, there is a boarder with Scotland, not a visible one, it attracts what I said to you about if you travel 30 miles it takes 30-40minutes, but in one hour you go a long way in Scotland people would do that for shopping in region. If you walk in Carlisle every third person would have a Scottish accent

a. this county counts, the Scot population maybe 1000 people, but main in small village just on the other side the boarder, but mainly to attract people

c. but we don't have procumbent

a. exactly

cv. maybe a score?

a. it's still not high

c. I think we have a good, great capacity to retain, cause we are still not importing enough, exporting a lot people still and it's not important in a ...

b. I think it's a two

a. yeah

c. yeah

a. it's just not mean that it's not moving in the right direction, it's just not right there

Is there a regional innovation policy?

a. nooo

b. it was

a. it hasn't got a policy, it has got a stimulus

victor.cepoi we can put it a one here

How networks are organized (e.g. multi-sectoral, enterprises only or sector only) and to which extent do the networks contribute effectively to innovation performance?

c. by sector there are, the nuclear sector is very strong, and I work in that as well, there are nearly 40 companies in that business cluster, a lot of share of that, because of the opportunity, because if they work together the pie is bigger you know, rather than individual competing. So this spirit of coopetition of working together, maybe sometimes they are competing, is quite strong because they see the benefit of working together to innovate. The single examples that are particular in cyber security for example. So it's by sector, ship building, nuclear, that is food, drink, tourism



- a. they are strong connected
- b. definitely
- c. all of our sectors are strong within
- b. there is an amount cross-sector through the organization by the chamber of commerce, who put on networking events, which brings in a whole wrapped as inventible ... the university does not have that
- c. cause he's talking about 100 plus people going to the events, it's a lot of business to business interaction, social contact which you need if you one home business, working from home say, you need that social interaction, it's very important
- b. should we give a 4?
- a. I think so
- c. overall is good, which is good thing. They are not forced, is fairly independent .. or controlled by, or certain control by public bodies
- b. it's true... let's give a 4

What are the strengths and weaknesses concerning cooperation between stakeholders within the region?

- c. what would I say is, people ask me about the relationships and they talk about the so corporate relationships, things like that and institutional relationships is being strong, what I say is the strength in a place like this, this particular region is the personal relationships, cause that actually translates themselves into frameworks for business. So it's the personal relationships who brings the institutional relationships with it, it's not driven by the institutional relationships, it's driven by the people that are working in it, because there is a movement between them. I changed positions in 20 years, but my contacts remain the same. Right here, I know Frank Peck for 20 years, so that relations do, many clusters on their own that actually bring the intuitions with them, so that's the strength, a lot of that of course is that people made commitments to move into the area, people approaching the message anyway about the collaboration of working together and a place to prosper
- a. Frank has worked for 3 universities now and has done exactly, fundamentally same network and there is a lot of people like that say that want to come to the area ... you don't beat the landscape
- c. if you want to get 100 people in the room, you would have to make just 3 phone calls. And they bring those big institutions with them. And I see that more, because of the type of place we are. There is a lot of respect around that, it's genuine this one.
- C. I mean for instance, when there is some flood, there is one of the big companies in Carlisle, they send people and machinery down there. We don't have a working relationship with them
- a. they just did it
- c. it's end of story. Sent machinery and people to clear that ... fantastic relationships
- a. I was sick when I came up from Liverpool and sitting in those coffee shop wondering how to get, just picked up the phone and called, and started bringing people to dig ... there is this network that used to work
- c. that's very strong
- a. it is, very very strong, I agree. 4
- c. 4
- b.4

What are the strengths and weaknesses concerning cooperation between regional stakeholders and parties outside the region?

- b. it's less strong. That is what we were talking about
- c. we are not a powerful region or powerful economy. We've got a strong leadership to create the power sector, so we are ... it's almost by sector again isn't it? And which sector you are in, nuclear sector, power plants, tourism. All of our sector is good, but general manufacturing, engineering, services .. But you know manage professional services not so strong, I mean they are good but not so strong



- a. we do feel like we are on
- c. it looks like a branch economy, looks like extension or something else. If you go to a bigger region meeting, you are always welcomed North Cumbria, because you are seen as a threat. In the north we have Manchester, Liverpool very competing, but if we say we're Cumbria "hello" (long laugh). Is Newcastle like that? Newcastle is good, is other way around. We are allowed at the table, and because of that you can play the ball hard. What I want to say is that we are insignificant in a lot of ways, but I think we do good than most a lot of areas in North Umbria, act bigger than you are
- a. the retail element, the size of population
- c,b,a : 3

Do stakeholders trust each other?

b. I think so

- c. you can't even exist here and work without it, unless trust associated with it. It goes back to two questions earlier. You do something because of the person in that certain area. Trust is full respect around, I think. Far more than you find, I think, far more. 4
- a,b. yeah

What are the strengths and weaknesses of the culture and attitude of the population concerning creativity and entrepreneurship?

- c. it's the first time you said creativity, it so creative sector here, where we are. Which is different. And I think that there are creative people, that they always shout loud. In the design, certainly around Cumbria. And some of them in the rural areas, it is a lot of creative players. But people are working from home, maybe. Very creative things back there. They are able to work remotely, I think it is very important. I think that we attracted that sort of people because of the lifestyle that it has offered
- b. me and my wife moved into the area somewhere near northumbria, I was stripped wide about the diversity, maybe because of the small population and get to hear them more, maybe it's part of the media that propagates that certain people. It's tradition northcumbria is bee associated by creative
- a. it's not tradition toward creative arts
- c. What we haven't got it's a multiethnic population, it's ethnicity s very low... it's because of the weather (as a joke). Economic migrants prefer city centers, metropolitan locations ... and we haven't got that, it's been a weakness. Carlisle is a 100% of population, so we lost that broader mix, because we are all economic migrants from places like this, because we originally came from southern areas and worked on the land and then industrial revolution, and then the people started to work in mines, shipyards etc. SO we don't have that, we've got a strong sense of ... even people ultimately being for a short period of time
- a. in the 1900 we were having diminishing work right here
- c. a little migrant community is building the nuclear power station, so that's going to be a quite of a challenge
- v. what about the entrepreneurship?
- b. that is a fascinating question, there is a little part of the population that tried in creating stuff and entrepreneurship, there are people coming from other regions
- c. I think some people don't see lifestyle business as be entrepreneurial, but they are and be creative. And that's a bit different, interpretational sometimes
- a. to produce, not to paint things. Is it entrepreneurial for the engineer to design the code? Because the engineer has to fit in a survival chain in order to fit inside walls
- c. good reason of making Cumbria network. They were craft based, more creative craft based some of them grew quite big in craft
- a,b,c : it's a 3

To what extent do the regional attitudes / culture enable the learning processes in the region?



- c. I think that is an aged based thing, young people are very willing to adapt and learn new things. A soon as you get over 40-45, I think it is a different generational thing. It is more about values ... young people are more edgier, going further. Carlisle is doing what it was doing, even 10 years ago. I think it is much opportunity, it used to less risk, our generation was risk averse, we bought mortgages and things like that
- b. so in terms of the region we've got very limited number of young people, but a very high proportion of old/ retired people. If we speak from the demographics
- a. demographics
- c. in the south of the region, where several lakes, the house prices are very high. People are coming from safer south of the country and retiring there, and the house prices are going further. With the local young people coming from definitely from lower paid sectors, they have to move
- a. so there is actually no population migrants coming in pushing younger people to look anywhere
- c. is there a dichotomy between low paid and tourism, high price. It's impossible to buy a house. There are houses scheme, there are some of them but still too expensive, so people prefer to leave in cities like this. That's why it gonna push the metal market and (name of a company) to say goodbye
- a. a vicious circle isn't it?
- b. if you look at all of the diversity people had to adapt
- c. in some cases when it is like that, young people are staying with the parents longer
- b. it is true
- c. so that's adapting, willingness by the family. So I think that's quite strong welcomed, you're 18 get out with the world
- a. fortunately we had to adapt more in the rural areas
- c. it's the risks that they take, that we wouldn't take. We are from a generation that inherited our wealth, cause we are the generation that saw large houses, so we got our wealth from that. And they can see that
- A generous 3

Is competition seen as a positive value for innovation process?

- c. at least it is driven by competition
- a. it must be. The extremely friendly that we are very competitive as well. If you watch a local match, local villages
- c. it is a yes anywhere, it is innovate or die. I think North Cumbria has to do that
- A 3

What is the role of globalization for the innovation processes?

- c. For me one of the weaknesses that we had, particularly in the nuclear sector, if you drive innovation into the nuclear sector, from tear 3 community up till there, it is who retains the intellectual property, and up till now the nuclear sector were very keen in retaining that IP. Now they are changing it, because of the methods. You won't get best innovation if you wont release anything. So it's how, whether IP resides now and the future, if you can retain it then you can do well from it, you have to give it away or sell it, that's difficult. But it's more difficult to retain it because as soon you expose it to the market place, the Koreans, the Japanese, the Chinese are there. So I think it is quite difficult, but there are things so as processes where perfectly relates who retains it, which IP, but you couldn't sue the Chinese
- a. the beauties of the globalization is that it makes everyone small. On a global scale Manchester is small, it brings us to the same size
- c. anything that has to do with internet trade, it's by definition global
- a. opportunity
- c. I think it is quite good for some of our people, particularly on of the IT or science. It means that there is a lot more exports in that sense and because we are very competitive at the moment

c. most of our market is within the UK, defense, nuclear, local consumption, tourism

a,b,c: Let's put a 3

Focus group Serbia

Respondents can answer individually as well in group but there should be one averaged answer.

1. Assess the level of innovation in this region?

Resp1. I am a person from academia, partly I am supposed to talk about that, partly not, and I wouldn't say that innovation is well developed as an infrastructure here. There are some steps in that direction, among each other these kind of projects and initiatives from the ministry like innovation prizes in the last 2-3 years, we applied in that innovation prize as a group but I wouldn't say that the situation is bright. There is kind of inertia in our community but as you see the group sitting here, business innovation center, ICT cluster, they are working much on it on that part, in this local community but as a country, as a government, I would say that there some steps taken in the last 2-3 years regarding IT. I am from the computer science field so we recognize those steps, but they are trying to involve more people into IT. But they are trying to do it like top down approach not bottom up. So they are trying to interest more people into universities to come, they try to find the financial to put into the education of computer science they are not much on the lower levels like primary and secondary education and that what should be improved as well. If you want a better entrance or input into academia. As a result, our group doubled, last year but as a quality nothing changed. We just got students of worst capacity. But what should be improved is the engineering skills in the secondary education level.

Resp2. The Government or authorities should include IT subject obligatory in the elementary schools from the next year. I think 5th or 6th grade. Regarding IT companies, there are programmers of quite good quality so that they could be competitive on the market. But regarding innovation, there is fear among population among global of anything that it's new. There is significant level of basics misunderstanding of possibilities, and that something that Information Technology can bring them to make their life easier. I think the basic problem is in the understanding.

Question: In the sector other than information technology, what is level of innovation?

Resp1. I would also say that as an addition the majority of our IT companies do some kind of companies do some sort of outsourcing. You know the reasons perhaps. This is Balkans, we have good quality of reproducers of programmers of standard kind. But the innovative thing is something that can be described as people like fear. And another problem is the industry that was largely devastated in the 90s and there is inertia in putting innovation into something that is already devastated and should be brought into the same environment it used to be

Resp3. It's not everything bad, that is why I am pointing ... we have policy, some strategy, some laws we have institution network development like business innovation center, clusters, like Academic institutes, departments and faculties. Even we have some HPC centers. But on the implementation level, on the financing level it's different situation

Resp1. the level of communication between academia and industry

Resp3. is not so good and is not bad in sum

Resp4. Market coordination in the business incubator, business innovation centre. We are dealing with young people, and start-ups and we involve whole process, from idea to profit. My opinion



is that we can talk about actual level. I think on the micro-level, the state, my answer is two, micro (this region) including agency of development, academic Universities and chamber of commerce - 3. Talking about innovations, from level motivations of innovations, process from innovation to idea to the profit. In this way are talking about barriers in micro and macro level. We can do better everywhere and every time, in sport, business ..

Resp1. It encourages many things, it happened recent in the local level. So I would like the local community grows up as something that happens in the northern part of our country, novi sad for example, I would like to encourage people with a greater score, that are working on that

Res2. I would say 2 because it's more realistic we have identified possibilities, we talked about, but shows possibility. We showed some progress in identifying some possibilities good practices, some good leaders. That's great, but we haven't done anything specific. We are having goal, mission, vision... it is not 1 because we are not that bad

score of all respondents for this question is 2.

2. What would be strength and weaknesses in collecting, processing and dissemination of innovation information example finding opportunities, potential partners and funding available etc.?

Resp2. There are some possibilities for funding. there are but for border regions, rather than central region, as I think. There are some EU funds, but they demand stuff that is with expertise of certain level

Resp1. Writing proposals

Resp2. There are initiatives for collaboration economies, sector of any kind, and academy, but I don't know we actually in this region have any project of that kind. So we had to work, as we had successful example, but we here we haven't reached that level of cooperation between sector and academy which can provide with actual applying and maybe getting some funds. The agency here (for development) great effort to inform us about various opportunities and funding for everything, but somehow we haven't reached that level of expertise in writing projects or something like that. Easier to find the partner participating also in that kind so we can actually use resources to give us information about. I don't have many numbers, but my general feeling whenever some interesting opportunity is presented there is mostly same group of people, institutions that are generally interesting in something. Not very widespread. And they may share the information among themselves and that's ok, but I don't know if other subjects are showing much of an interest

Resp4. Each of the institutions, sectors are living the culture of the same people, of the same ... also in the innovation sector, same actors always same. Like we are living in a niche. There is not much communication and cooperation.

Resp1. In academia, European Commission recognized in the FP7 that they gave much money to basic research and in the end they did not have the results they wanted but they want more work places, to open opportunities and new stuff. And basic research does not give you that direction. They recognized that they should put more effort in corporation of academia and industry. That is recognized here

score of all respondents for this question is 2.

3. What are regional strengths and weaknesses in enterprises especially in research and development area ?

Resp1. We used to have R&D here during socialist age, and this was very large and research city. My supervisor for my Ph.D. thesis professor founded the Computational mechanics in this region that was innovative stuff worldwide. That's what we have and we have the tradition of where I grew up, my academic career that was the group of people that had the continuity until 90s and then the continuity was lost like 2-3 generations of engineers are lost in the dark or maybe abroad, so what we need to .. the tradition is strength I would say, and the weaknesses that now we should put more effort in quality and more people to return here to work on research, because the large automotive industry had institutes, we have only manufacturing here regarding



automotive industry the research is performed somewhere else, in Torino, and we have manufacturing here. In those times that I have mentioned we had institutes of the current industry and expertise in that area, in computer modelling

What about entrepreneurship in R &D?

Resp1. Not at all. Manufacturing and auto sourcing, no innovation. They have projects, Horizon and FP7 projects, they are of great example

Resp.4 I think that there are possibilities for that but I don't know if it money support for mass production

Resp3. I think that the R&D is too much expensive for the SMEs in the global, but in particular ... I know (name of the company), it is a great job. They produced some products for medicine, like some stands

Resp1. Actually they do no produce

Resp3. You are right. They produced pre-products. This is very important. It is a small firm a spin-off company from the economic faculty, sorry from mechanical engineering faculty of Engineering. But in global areas R & D is too much expensive for small firm

Resp2. The score would be score because there are some examples of ideas

Resp3. I would like to say about development, in this room all of us are dealing with young people, we try to make life going better in the quality of life and work. If we talk about development our main role as business incubator to make new firms, like agency for development, if we talk about researching they don't have enough money to research, but if talk about development it depends on support networks. we are one point for support like Agency, like Universities, Chamber of Commerce, Business incubator. I am presenting over 40 micro small firms because we produced over 40 start ups in our incubator. I know exactly the problems in those firms, from financing to making profits. The point is, can we solve these problems? On hand one we can like education, trainings, working space in our center, offering discounts on prices, but on the other hand we don't have influence in level of investment (state), GDP.. I am talking about state investment in Science development - 0.3%. this is first thing most important. Just 0.3%

Resp1. From my perspective, we have some connections with enterprises. Since the 90s we have a tradition for Institute of Water resources, and before Electric power industry in Serbia. We had collaboration with them and we do some innovations for them and also producing research, but this is only small example, the majority of people fro mother departments of my faculty and parts of the university do not have anything with the enterprises, just producing papers, and they are not very profitable. What I have mentioned is for the state level, not the region

Resp4. We have something, but we don't do anything

score of all respondents for this question is 1.

4. Is the final product that is produced is oriented to regional or national level?

Resp1. We are talking mostly about It out sourcing, so the companies do not have their names, they rent people

Resp4. Not oriented on the national level, because the demands align certain level of awareness of possibilities, to finance it. So here ...

Resp1. They earn for life, is good enough for them, in an environment where it is difficult to earn for life and they are satisfied with that. They want to put more people into getting into the idea that they can do their own thing better than to work for somebody else. How to do that is partly tradition, partly inertia. You can do better. I know among my students of computer science, in the last 7-8 years, there are 2-3 companies that are embedded from the students. Novi sad they had more opportunities, I don't know where. Not sure from where. The names of the companies are not mentioned outside the country, because they rent people

Resp4. In the automotive industry they are on the level tier 2, teir 1

score of all respondents for this question, concerning regional level is 1.

5. What are the strengths and weaknesses concerning the role of public authorities and intermediary organization in providing opportunities in form of support for R & D providing formal or informal trainings, project writing and so on?



Resp2. I don't know about project writing because in faculties or some institutions there are people who know how to do that, on one hand. On the other hand investing in R & D is at small level. There can be made some suggestions, some tax reliefs should be done for companies that are not developed, and to reinvest or invest their profits in R & D.

Question: Something positive about how do they help? Its question for everybody.

Resp2. I think that something that the region agency does and that is informing about possibilities and giving support for those who want to apply. And projects because depends on funding or something like that.

Resp4. On the level of projects preparing depends on programs, they have open calls but for the innovation matter, it is always on the matter possible enterprise and academic institutions. For research center

Rep2. Because innovation is something somebody must know the existing process and products and has the knowledge or the idea to improve it. That comes from industries and experience or academia where you share the different use. It needs to be synergy of everything. Role of public authorities and media should be bigger than it is. We are doing something, yet again how real progress has been made

score of all respondents for this question is 3.

6. Does the region have capacity to attract talented people for professional development, recognition, integration and so on?

Resp1: I can tell in perspective of young people, students. The success stories I know. There are some possibilities because it's quite large town, let's say no city and the people that are coming from other parts of country, nearby cities, tend to stay here for a while to get into some IT companies, It depends on size of city because they maybe have more social life and activities there.

Resp2. From smaller cities, but transfer from bigger cities, like novi sad, where is much work or Belgrade

Resp1. They do not only depend on job opportunities, but in the IT they do have job opportunities here, and the people tend to stay from smaller cities. But it is the same as people from Kragujevac are coming to Belgrade. But we are talking from the IT perspective, but for other kinds of stories ...

Resp2. There are many people from smaller cities that came here in the last couple of years, that's in general. The IT has that aspect that you don't have to be somewhere where is the job. I really can't say that there is a job there will be job for the IT software developers or something like that in the next how many years

For people from smaller cities, it depends on job opportunities that they are offering. Example people from tribal areas are coming for jobs. It can be looked from different angles like young people with families it's ok environment for them; there is job something about the IT. Region has capacity to attract people from smaller cities but compared to bigger cities, it as not much. Because everybody would go to Novi sad

score of all respondents for this question is 2.

7. Does the region have capacity to retain people?

Resp2: It depends on their motives. I think no because the environment for talented people is more competitive in bigger cities, there on the source of the information and everything else which is bigger than around here. And salaries I think are bigger there than here

Resp1. Our most successful students do not stay at university. Maybe it's an answer to both questions, they stay a little bit at university or at the company, and eventually in couple of years Microsoft Belgrade

Resp2. Or maybe Silicon Valley or something like this.



Resp1. But does the Microsoft Belgrade has the capacity to retain? I don't know. For talented there are some capacities, for most talented people we don't have capacity

Resp2. Because for them it's not just about financial challenge, it's about the intellectual challenge, which is also a very important fact for them and it's much greater ..

Resp1. For most talented people that's the only one

Resp2. To prove themselves and to build something new
score of all respondents for this question is 2.

8. What are strengths and weaknesses of regional innovation policy? Is there any regional innovation policy?

Resp4. At regional level no.

Resp1. Innovation, research nothing. At national level they do have the 0.3% thing.

Resp3. Unfortunately, its true.

Resp1. They kept something at the good will

Question: But, if we look at long term objectives and innovation vision and all?

Response: No.

score of all respondents for this question is 1.

9. How networks are organized? Particularly enterprises, sectoral and to which extent these networks contribute to factors regarding Innovation policy?

Resp4. We have mostly cooperation mechanisms, here in Serbia, here in region, especially our clusters, so we have a networks of several cluster, depending on sectors as a kind of cooperation network so we can say that it is a strength,

Resp1. And they are very good.

Resp4. We have an alliance on the national level, that cooperate on very good level, and we have 5 ICT clusters and we have very high level of cooperation, networking and sharing experience information and everything and some things exist even for the IT. People there basically like to share and to exchange ideas and everything. I think that's very great

Resp1. And they also propose to Govt. regarding IT, education sense, legal support and or suggestion for some framework

score of all respondents for this question is 3.

10. What are strengths and weaknesses of Cooperation between stakeholders? Do they cooperate? Do key actors cooperate with each other or not?

Resp2: We meet regularly, we talk about, yet again maybe we should do something concrete in future. I mean its ok about openness to cooperation. But we haven't made something anything concrete. We talk, we know each other. We have very important suggestions from every side, but ..

Resp1. Recently the Government, they started 2 years ago, so those cluster od not have tradition like german cluster of 200 years. This is a new stuff that it is like it is, the agency 15 years, has the tradition. But the ICT cluster perform very well regarding their age

Resp4. We (rda) do cooperation with innovation centers, joint projects

Resp1. But with local authorities you can say that if you have cooperation, I don't know. Local authorities, different structures

Resp2. I think that they are still finding out what's all the things we can actually do, so in that manner we will identify possibilities and ways of collaborating maybe in the future. We had support well organizing that projects so it was very good collaboration with local authorities on that level, but as I see we are jumping from one activity to another basically erasing awareness, possibilities and that initial fear of technology, maybe in the future we will have it better identified

Resp1. Recently we had good collaboration with local entities. We don't know how the IT will grow within this country, we are all on that way we should use it the best way we can but we can always do better

Resp3. I would like 3 because if we are talking about progress between 10 years ago, if we are talking about our collaborations, between stakeholders, my opinion is collaboration today is much better today.

Resp1. We have the infrastructure, but the question regards the infrastructure so we talk with each other

Resp4. We know how to cooperate when it comes to that way to cooperate it's small efforts

Resp3. Our personal collaboration is very good, we know each other.

Resp4. But it's not to be good only at personal level.

Resp1. It should be institutional.

Resp3. It's cultural problem, we have very good contacts, collaboration, but between institutions it's not like that. We have very good collaboration with agency, university, ICT cluster
score of all respondents for this question is 3.

11. What are strengths and weaknesses concerning cooperation between regional stakeholders and entities that are outside of region? i. e. any differences between national level and even outside of the country? Does it give any added values?

Resp2. I can tell you in the terms of those cross-industries that we have, cooperation also among ICT clusters but that's one type of stakeholders, but progress has been made. We have dialogue with institutions. I don't know, let's may be discussed with other peoples.

Resp1. University collaborations always comes 1st. So we have collaboration between universities should but there is more raw level like enterprises is much different things, they're much worse

Resp4. Not familiar with this subject, but if I try to be in their shoes the profit is in their leaders, they have the opportunity to make the profit with some enterprise from Vojvodina or from the South of Serbia, they will make cooperation, but if they will not, they will not have cooperation. That's the same situation with the enterprises from abroad. But if we talk about institutions and authorities it's difficult because everything is connected with politics and that's the main catch. If you are on the right side, you will do everything you want, if you are not on the right side you will always have a problem

Resp1. Strength is their example but it is very specific but weakness is

Resp2. I was talking about cooperation of cluster at national level, not regional

Resp1. But it's among regions

score of all respondents for this question is 2.

12. Do stakeholders trust each other? For example, do you have trust inside the regions among actors? Is there any trust when they cooperate?

Resp2. It depends which actors you have in mind. inside cluster there are different entities, firms that have their own professional goals, so they can collaborate and that's ok, but first thing that comes it's their own business and responsibilities. In the terms of the relation of clusters and academia, or working with the support organization I think that there is trust. It's not an issue. In case of firms and local authorities, there is a basic ... they don't know.... Misunderstanding... they don't understand the basics of the specifics of the IT industry or the environment in which they function, just discourse .. that's the main reason of mistrust, because it's not ... it's a bit little bit different industry. So you really have to put an effort to understand the concepts. So I think there is a little bit

they don't trust each other as they don't understand each other thoroughly, doubts exist and misunderstanding for basics, specifics and environment in which they function; is in existence.

score of all respondents for this question is 2.

13. Do you think that the people in this region are creative to be made entrepreneurs so they would have knowledge like it would be part of their characteristics?

Resp2. There are ideas, good ideas and much more than couple of years ago.



Resp1. But there is fear

Resp2. and lots of challenges to come. But people are capable of thinking on their feet and to adapt to various things. So I think that they are creative

Resp3. This is statistics. You said fear. I would like to say risk. On scale of 1-100, Serbia is on 88. Our culture, we are people, we don't like risk. Responsibilities. This is culture, old habits

Resp1. And social past, you did not have risk, the government took the risk

Resp3. This is only about fear and risk. In our region, in our situation, our people the best, I am talking about students, young students

Resp1. If you're putting them into another environment, far away from relatives, only young people – great success. But in this

Resp3. We can talk about motives. Motivation

Resp4. Creative yes, entrepreneurial not yet

Resp1. Not yet

Resp4. I think it's a different issue

Resp2. There was a lecture and there were many young people. Maybe some are shy, but from my experience young people are more open about the idea of entrepreneurship than they were before. There are much more opportunities to talk about to share ideas and listen to some successful stories. Some success has been made in the past in terms of their own freedom, especially if they are on faculties, they consider the idea of being creative and entrepreneurial themselves. Couple of years ago it was what that does really mean? And now we have very specific programmes, institutions, some entities where you can go and try inform yourself about possibilities and what people did, what they've learnt. It wasn't like that before. So it's changing, but I don't know how many of them will take the lead into that. It's good as an idea, they might think about it, they might think about finding their own agency, firm

Resp4. I think that we are not still to be on a level of 3. A lot have been made in the last 15 years, but there is a lot to do

Resp1. What I get from the question is the general idea. The general idea of what we are and what we want to accomplish. If we say that we are not that good, and we do not have the capacity to be good. It's not good for me. If we say we are not good now, because of the 90s, the wars, situations and stuff, but we are creative, and we are good and if that's the idea of the whole questionnaire that we answered, I would like that questionnaire. But if the idea is that we are not good, the community is not good, as people we do not have capacity, to accomplish ...

Resp4. We are creative, but afraid of entrepreneurship

Resp2. Many people give themselves entrepreneurial life, in terms of agriculture. I think that we can find some interesting niches, and that people are trying to find their own way. Entrepreneurship is not in the blood

score of all respondents for this question is 2.

14. What about regional cultures and attitudes making people enable to learn new capabilities, to adopt new approaches?

Resp2. we are the people who what to know everything. I think. I don't know people who, market has opened and internet, and everything. New solutions, and people want to learn to be competitive in knowledge and everything. The other part is the population who just goes with the flow, and who wants to go is raging for possibilities, to know, to try, to increase their skills or knowledge in any possible way, or I don't care

Resp1. There is no middle ground

Resp2. That is maybe the reason why on the meetings there are the same people. Who wants to know will know, will find a way

Resp4. Because of the reason that you already said, half of them is one size ..

Resp2. But maybe I will say 3, because great new ideas occurred and it's something that comes from the wider knowledge, high school, faculty or some institution that can give and people see possibilities in learning and share information. Recently co-working space has opened in Kragujevac and we have more lectures like that and

Resp1. We are a university city, which is very important for the town to have the university



Resp4. But it is from another point of view, we are talking about the region, other municipalities that are smaller and the average is lower than here. The situation of the smaller towns makes me come to live here in the city

score of all respondents for this question at regional level is 2.

15. Is competition see positive value for innovation process?

Resp1. Perhaps you can say about the companies in the cluster

Resp2. But they are not competitive, because they have their own business, so they don't compete.

Resp1. It should stimulate innovation processes. In academia we got the competition from the faculty of engineering. We were first to teach computer science, and then the faculty of engineering got their own thing last year, personally I saw it as a good thing. More people involved in it, means more people to work with the companies in the cluster and more talented people come to teach, but some of my colleagues did not see that. But it's more or less the axiom of capitalism. It should be

REsp2. I think it is a good thing, because someone gives you something and you see if you can do it better and you see where you are in the relation to other actors on the market or whatever, and it's not a good thing if competition is not as good as you. It's not just to be a better but it's to improve in time, it's a process that we challenge each other to improve ourselves, and product, environment or something.

score of all respondents for this question is 4.

16. What is role of globalization in innovation process? Does it improve or influence innovation process?

Resp2. Yes. It does, because whatever we want to create and go to global market you have to be innovative, to find different ways to make your own space in the market.

Resp1. But as we do not have much innovation. These innovations I know, it helps.

Resp2. It is a necessity in a way

Resp4. Maybe we don't have the capacity to follow those globalization trends, but we are aware of the necessity

Resp1. Maybe a 3 because we have those local things, it's not only

score of all respondents for this question is 3.