Dear reviewers,

Dear editors,

The authors would like to thank you for the quality of the reviewing process. We have thoroughly gone through your comments. We have implemented the large majority of the changes you suggested. We have addressed all Reviewer 2's suggestions about grammar and choice of words. We have also identified some very useful clarifications from the other comments made by the Reviewer, and these have undoubtedly strengthened the paper.

Concerning reviewer 1’s comment on moving the introduction of our case between the ‘method’ and ‘results’ section, we would prefer to keep the structure of the paper as it is. As we explain below (see inserted comment), our choice of the case study are and firm is central in how we build our review of the literature. Postponing the introduction of the firm and area later in the paper would weaken our argumentation throughout of the paper. So, we would very much like to keep the introduction of the case study early in the flow of the manuscript.

We have explained further how we have implemented the changes by using side-comments.

With best regards,

*The authors*

**REVIEWER 1**

Review: The Relational Geography of Post-Staples Development – a case in Malå, north Sweden

The article strives to contribute to a better understanding of why innovation occurs in a resource periphery region.  By using the ARTE framework (agglomeration, regionalisation, translocalisation, Europeanisation), the article analyses the evolution of a Swedish company *Malå Geoscience*, whichevolved from a small local company to a major international player, while being situated in a region with declining mining sector.

I recommend this article for publication with minor revisions. A possible improvement of the article could be achieved by slightly re-arranging the order of the chapters. I would move Chapter 2 “Introducing Malå Geoscience” into Chapter 5, as it directly relates to the results chapter.

Additionally, some clarifications could be provided in the methods section. Specifically, the author(s) could explain how 11 interviews with employees of Guideline Geo, and three employees of key business partners (which partners?) based in northern Sweden, were selected. The author(s) could provide a list of interviewed individuals in an appendix (if it can be made public).

**REVIEWER 2**

**Review: The Relational Geography of Post-Staples Development – a case in Malå, north Sweden**

Decision: Accept with minor changes

This is an interesting and informative paper. I shall spend little time on praise, though I could go on and on. Rather, I will focus on criticism with the aim of improving an already very good paper. My reactions are just that. Not all should be followed but perhaps will spark improvement. I may not have the solution/answer, but I did have questions.

Wording and word choice is important for proper conveyance of the proper meaning. Overall well crafted and the author(s) have said what they meant clearly in most instances. Well done.

Abstract. “small peripheral regions” small yes, but this is relative. Relative to what. Mala is smaller than Stockholm, or the City of New York, or Los Angeles. But we learn later that Mala is more substantial than many of its neighbours or competitors (if you will). Hmm. I just threw out the word substantial. Small by what measure? Height, weight, mindedness, diversity, education, population, amenities, natural beauty, natural resources… Being small is not bad as long as your standing next to many others that are smaller than you.

Abstract. “peripheral regions are subject to processes…” ‘subject to’ is not bad. I wondered if ‘reliant upon’ works? It says something slightly different. Which maybe you mean or do not. You decide.

p. 1 northern development – right. I am increasingly believing that it is often more sincere than I had suspected while at other times it is much less sincere. One can feign concern, interest, and even effort. One can throw money at something to placate. Or one can really do something about it. Northern development has at times been all of these things.

p. 1 “to diversity economic activity” I don’t see this so much a story of diversification as an example of carefully betting on and backing one horse. Diversification traditionally is seen as putting eggs in lots of different baskets. Seems like the eggs were all carefully placed in one basket. There doesn’t seem to be too much hedging of pets. It looks like a somewhat purposeful course was charted. And this does not mean rigidly sticking to the plan at all cost regardless of peril or profit. In deed, there was some planting of seeds in exchanging knowledge not knowing what would be fruitful. But it was carefully cultivated. Mala spirit might be part of the terroir (see recent literature on entrepreneurial ecosytems).

Citation in paper. I am not familiar with using first author, second author and then et al. Seems like first author and then et al. would be sufficient.

p. 2. “accessing industries and markets” word choice. Access markets sounds right to my ears. But I’m not sure industries are accessed. They are maybe chosen/selected/joined or participated in. Participate sounds funny to my ears. Maybe access or another word choice is correct later as you indicate how they entered them. Dive in vs. slowly wade in. Do some reconnaissance first.

p.2 “Such case studies tend to be quite descriptive” What’s wrong with that? Either explain why that is a weakness or just have “Such case studies tend to focus on the business as an independent entity.” The following arguments/statements then make perfect logical sense.

p. 2 “Those systems” is that all 3? National, Regional, and Local? All in equal measures? At the same time/place?

p. 2 “resource peripheries” appears form the first time and then in the next paragraph. “resource periphery” appears for the first time page 4. I like the phrase. I think I know what it means, but I was not entirely sure of the full connotation. What is it? What isn’t it. Consider defining or elaborating. The words appear in the same sentence in the opening of the abstract.

p.2 “firms might overcome…” overcome is a good word. Is it the right word/ only word? “some firms *embrace* or *ameliorate*? And if it is ‘embrace’ then of course some of these are in hindsight not limitations or not just limitations. Things that can be learned from or used as a springboard or proving ground. What doesn’t kill you makes you stronger/ smarter/ live longer. Of course many limitations owing to size/ distance do kill firms. There are geo specific drivers Dubois and Roto (which I’m not familiar with). Does this article talk about geo specific forces? Things that are inherent, might be limitations for some and not limitation for others. Or in the case of Mala Geoscience, initial limitations at time 0 are later beneficial time 2.

p. 2 “ increasingly accepted view that non-urban local economies… could be legitimate in the context of… There are at least 2 thoughts here. Maybe break them out succinctly – easier for the reader. “suggested critical inputs” Not sure if I like ‘suggested’ – these are suggested from Virkkala Esparcia? Maybe ‘identified’ rather than ‘suggested’? Maybe ‘requisite’ is a better word than suggested.

p.4 Mala Geoscience being acquired. Is it still a success story if it got bought out? Maybe it is sign that they were a success (valuable) and cashing out is the way to realize it. Or just the nature of competition and globalization. A few years from now when local activity in Mala is hollowed out – what will we call it? Fingers crossed they can remain relevant and continue to make some noise to get resources (time, money, etc.).

fig. 2. Kristineberg is mentioned on the lead up to 1950 peak. Kristineberg is not mentioned on the wind down.

p. 5 “and increasingly difficult local economic conditions.” Such as? Unemployment the reader would guess. Any others?

p. 5 “There is a sense…” Very good paragraph.

p. 5 “networks that need to be sourced from elsewhere” sourced is an interesting word. This new situation presents (or is) an opportunity to tap into new networks. But sometimes local remains insulated from or kept outside the new network. Not all make use of the opportunity. Some cannot even if they try – and many don’t even try to hop on.

p. 5 “local businesses are too small and too isolated” yes, and many of the actors are small-minded. Caught in the local parochial, not willing to venture into unknown realms. Fear of the big city folks.

P 6 “Neoendogenous development… extra-local… knowledge acquisition and localized learning” A parallel story/example is the success story of the community of Hasvik in Norway (vignette page 383) in Settlements at the Edge (Taylor, Carson, et al. 2016)

p. 6 “A critical factors… local actors to partake” I really like the image/picture painted on this page. Which ones (actors)? Some help and some hinder. Either purposefuly hurting/ sabotaging others’ efforts. Resistance might be spiteful/ mean or sometimes worse – well intentioned, but misguided. They simply have alternate views. Rural revitalization is not easy to pull off – recruitment, retention, tourism (Chapters 15, 17, 8, 3 Settlements at the Edge).

Even if we know how to do it – it is still not easy to accomplish.

“What needs to be better understood is how innovation processes are able to transcend the expected lock-in effects…” Yes perfect.

p. 7 Methods . Peripheral – check. Resource industry legacy – check. Niche – mmm. Not sure. Seems like being niche (actually or mindset) you are starting ahead of the game. You’re already showing some agility – mental or competitive instinct – move to the market. Such firms are showing promise. Easy to bet on and back a horse that’s won a few races.

If we had a firm that was struggling and lost (not hopeless) but then got going that would be more of a surprise/ encouragement than the present exemplar. And there is I suspect some examinations of such. For Canada, the East Coast. When the fisheries collapsed. Stocks of fish (staples) were gone. Lots of men, lots of idel boats, and empty nets. Who did what. What firms made it. What business models survived. Hasvik, Norway. High unemployment, youth fleeing. What do you do with the fishing vessels. Tourism. First try was this European country. Failed. Throw the dart at two more countries. Tourism success. Throw a few more darts at a few other ideas.

p. 8 “was demed” should be “was deemed”?

p. 8 “Mala as the centre…” great description. And later in the paper my question is answered. Transport. Is Mala easy to get to? Or at least not painful. Or not as painful as nearby places.

Sweden got behind Mala and this enterprise. What was the genesis of this backing or endorsement/ support?

In the case of Hasvik, there were champions. A few women, including a mayor. Politicians who are from there but have connections to outside /real world can make a difference. Rabble rousing is often underrated. Someone with foresight (and a loud voice – figuratively) can push and squawk. Yes, you get attention if you’re good (Mala and Mala Geoscience) but you get attention/ get noticed if you make some noise too.

p. 9 “could lead to informal tacit knowledge exchanges.” Yes, informal sharing is valuable even if it not scientific. So professionals interacting socially with others just to talk about weather, kids, sports, politics.

“could lead to informal tacit knowledge exchanges.” See also Saxanian’s *Regional Advantage: Culture and Competition in Silicon Valley and Route 128* and Ensign’s *Knowledge Sharing among Scientists*

p. 9 Mala culture – ‘spirit’ is marvellously relayed. Even if it is legend, hyperbole, it is a unifying attribute. Like the culture of cooperation and open-mindedness in Silicon Valley, California.

“place making… wide socio-economic context.” Robert Putam’s notion of community cohesion.

p. 9 “The network was initially…” Add the year if you have it.

“sectoral associations” I assume these are trade associations? What about labour and unions? Help or hindrance. Progressive, forward looking or dig in their heels?

“sustainable development” is this ecologically or economically? Both?

“a OECD” should be “an OECD”

“initiative aiming” appears twice on p. 9. I would have said “initiative aimed” but I dunno.

“but also to co-create new knowledge project the sector…” something awkward to my ear. Not certain if a word is missing our thoughts need to be teased out.

“GEORANGE (from 1999 to 2003) was director of Mala Geoscience (from 1994 to 1998).” I like it better as “GEORANGE (from 1999 to 2003) has been a director at Mala Geoscience from 1994 to 1998.

p. 10 “interviews stressed” or “interviewees stressed” I would have liked a quote or two from various interviewees.

“around knowledge exchange.” Good, very good. But something along the lines of reciprocal sharing / circulation of knowledge maybe captures what is going on. These are not transactions.

“related to these embedded relations” maybe my reading/ ears are not right. But this was not entirely clear to me.

“geographic proximity” physical or \_\_\_\_\_? There are other proximities based on social, cultural, values, etc. Just being also outsiders may bring folks together – us against them urbanites.

p. 10 “what types of products are on demand” should that be ‘in’ demand?

‘celebrated’ - this is interesting. And a recurring theme in rural/remote successes. Showcasing, putting something on a pedestal – even if done so humbly in the Mala way.

p. 11 Mala Geoscience demonstrated political astuteness, just by participating and then taking a role of leadership. Shaping the future (in their favour).

Knowing which network to jump on board whole-heartedly. And knowing which ones to take a pass on.

“to a widening across multiple disciplines.” I am not sure if that phrase is quite right. Widening of product markets. Growth in the number of applications for the GPR technology.

Table 1.

Does the ordering of participants signify anything. Bold does. F(Sweden) was omitted from all of them. Not necessary as it is taken as given – unless ordering matters or F(Sweden) would be bold.

BoraTec “Borehole” does this need to be capitalized?

EUROTEHN “Extractive Industries” does this need to be caplitalized?

“Inform relevant to improve the coordination of research on the topic in Europe” Not certain what “inform relevant” means. Relevant who or what? perhaps change to “Improve the coordination of research within Europe” “on topic” is not necessary – should be obvious.

Even if these are quotes, they can be reworked “Interact between industry and regulatory” Maybe liaise? Or Facilitate regulations…

ON SITE FOR MASONRY – while all caps? “Development and improvement of “ consider “Develop and improve…” Cultural Heritages – why caps?

p. 12 SmartRad Development of innovative. Change to Develop innovative…

It is interesting that Mala had the backing of all of Sweden. There was no run-off where Mala Geoscience had to beat out other Swedish firms.

Mala Geoscience – why is it italicized throughout the manuscript?

“Mala Geoscience developed cooperation with” maybe “Mala Geoscience developed cooperative relationships with”

“did not have formal partnerships outside of” didn’t need formal? This isn’t a weakness or is it? Informal is better if it can work. Don’t need a legal contract if a handshake works. Handshake partnership always outperform/ outlast legal ones.

p.12 “however, involved with other national universities” Why? Umea and Lulea are not as valuable as Lund. Lund is like Harvard/Stanford?

“The success of the GPR technology led to …” If I have it right, to make it clear “The success of Mala Geoscience’s GPR technology led to …” And do spell out GPR – it is only used a few times.

“The United States office was established in 1997. It was not located…” make that “The United States office was ~~established in 1997. It was~~ not located…” year was mentioned in the previous sentence.

“Appalachian” not sure, but maybe that should be Appalachia no ‘n’

“proximity of such a global” grammar? Maybe “proximity to such a global”

“direct feedback from a community of academic users.” It is probably worth connecting the dots here. Academic users are critical users. Not critical as in important or significant market share but critique. Demanding users who are separate from your prime target – corporate is a great test ground.

Table 3.

Gustafsson (2008) pages?

p.13 “firstly” grammar police (I forget why) say should be “first” which makes the cumbersome “latterly” just “later”

p.13 “sustaining a complex network of relationships” yes, good. But maybe something like “sustaining a rich, resilient network of relationships” or so.

p. 14 top half of page. Kudos – this shows the steps, walks the reader through it.

The policy and law hurdles were not important in this instance but often are substantial. Car maker Volvo – first to have safety tests, first to have seatbelts. If they had been like MG and had Europanized back in the day (shaping policy) they would be ruling the auto world.

Europeanization quadrant - maybe mention (if you believe it to so) that policy standards are shaped here. Favourable treatment, availing oneself of public R&D funding, etc.

p. 15 Skelleftefaltet – why in Italics?

p. 15 Australia desert Canada tundra – yes great comparators to draw in. I don’t know, but maybe Russian mining too?

References

Esparcia J of rural studies. J of Rural Studies. Caps.

There might be other articles published in JRCD worth citing. See if one can be worked into this paper. <http://journals.brandonu.ca/jrcd/issue/view/22> or perhaps from other issues.