We thank the reviewer for his thoughtful and constructive comments and suggestions to our manuscript. We agree with the points made by the reviewer and would like to revise our manuscript according to the suggestions. We include our responses to the individual comments in the following (reviewer comments in *grey italics*, our response in black).

The contribution: Earthquake-induced landslides in Norway by Mathilde B. Sørensen, Torbjørn Haga, Atle Nesje is an important contribution for studying earthquake-induced landslides (EQIL) on intraplate margins. It takes benefit of 41 years of instrumental and 200 years of historical earthquake records and one of the best national landslide data sets in Europe. The study is justified because of historic earthquakes triggering wide-spread landsliding in Norway. The study is in depth and no other data with high certainty could be added. I see a bit of deficiency including results of more recent studies in this field of geosciences in Norway and a deficiency in the full free available data sets.

Especially the susceptibility of the slope to landslide processes is discussed. In Norway landslide susceptibility maps exists covering the entire country: see "NVE Atlas" for rock fall, snow avalanche and debris flow/floods/ avalanches and more detailed susceptibility maps for quick clay slides at: Mulighet for marin leire (MML) | Norges geologiske undersøkelse (ngu.no). Locations of historic landslides should be compared to those maps. This would indicate if the Norwegian landslide hazard mapping program takes sufficient care of EQIL or if additional products are required. If so, this investigation would get a much higher importance to the Norwegian society but also to landslide sciences.
This is a very important point, and we agree with the reviewer. We would like to include a comparison of our findings to the available landslide susceptibility maps and discuss that comparison. The susceptibility maps should also be referred to in the introduction to enrich the discussion of landslides in Norway and their trigger mechanisms.

In the following I give my comments following the structure of the manuscript:

Line 23: It is important to mention that the term landslides translate to "skred" in Norway. The term "skred" contains different to all other languages snow avalanches. Thus do the total numbers in data bases refer to landslides and snow avalanches. This is discussed in the paper:

Herrera, G., Mateos, R. M., García-Davalillo, J. C., Grandjean, G., Poyiadji, E., Maftei, R., Filipciuc, T.-C., AufliÄ□, M. J., JeÅ¾, J., and Podolszki, L., 2017, Landslide databases in the Geological Surveys of Europe: Landslides, p. 1-21.

and also shown in:

Kalsnes, B., Nadim, F., Hermanns, R., Hygen, H., Petkovic, G., Dolva, B., Berg, H., and Høgvold, D., 2017, Landslide risk management in Norway, Slope safety preparedness for impact of climate change, CRC Press, p. 215-251.

We will clarify this under the description of the Norwegian landslide database.

The most updated numbers published on life loss in Norway are published in:

Hermanns, R. L., Hansen, L., Sletten, K., Böhme, M., Bunkholt, H. S. S., Dehls, J. F., Eilertsen, R. S., Fischer, L., L'Heureux, J. S., Høgaas, F., Nordahl, B., Oppikofer, T., Rubensdotter, L., Solberg, I. L., Stalsberg, K., and Yugsi Molina, F. X., Systematic geological mapping for landslide understanding in the Norwegian context,

in Proceedings Landslides and Engineered Slopes. Protecting Society through Improved Understanding: Proceedings of the 11th International & 2nd North American Symposium on Landslides, Banff, Canada, 3-8 June 2012, CRC Press, p. 265-271.

We will update the text with the numbers from Hermanns et al. (2012).

Lineas 70 – 90: It might be interesting to reference in addition to the paper by Blikra et al. 2006 also more recent papers that use landslides from the geological record to reconstruct paleoseismic events in Norway:

Bellwald, B., Hjelstuen, B., Sejrup, H., Stokowy, T., and Kuvås, J., 2019, Holocene mass movements in west and mid-Norwegian fjords and lakes: Marine Geology, v. 407, p. 192-212.

Mangerud, J., Birks, H. H., Halvorsen, L. S., Hughes, A. L., Nashoug, O., Nystuen, J. P., Paus, A., Sørensen, R., and Svendsen, J.-I., 2018, The timing of deglaciation and the sequence of pioneer vegetation at Ringsaker, eastern Norway–and an earthquake-triggered landslide: Norsk Geologisk Tidsskrift, v. 98, no. 3, p. 301-318.

In this paper it was postulated that the Tjellefonna 1756 rock avalanche was seismically triggered:

Redfield, T. F., and Osmundsen, P. T., 2009, The Tjellefonna fault system of western Norway; linking late-Caledonian extension, post-Caledonian normal faulting, and Tertiary rock column uplift with the landslide-generated tsunami event of 1756, in Osmundsen, P. T., ed., Volume 474: Netherlands, Elsevier : Amsterdam, Netherlands, p. 106-123.

Which could not be proven as certain by rock stability calculations in:

Sandøy, G., Oppikofer, T., and Nilsen, B., 2017, Why did the 1756 Tjellefonna rockslide occur? A back-analysis of the largest historic rockslide in Norway: Geomorphology, v. 289, p. 78-95.

We agree that the discussion of paleoseismic events should be expanded to include also the more recent references. We will do that in the revised manuscript.

Line 104:
This overview was given by:

Furseth, A., 2006, Skredulykker i Norge, Oslo, Norway, Tun Forlag, v. Book, Whole, 207 p.

and

Hermanns, R. L., Hansen, L., Sletten, K., Böhme, M., Bunkholt, H. S. S., Dehls, J. F., Eilertsen, R. S., Fischer, L., L'Heureux, J. S., Høgaas, F., Nordahl, B., Oppikofer, T., Rubensdotter, L., Solberg, I. L., Stalsberg, K., and Yugsi Molina, F. X., Systematic geological mapping for landslide understanding in the Norwegian context, in Proceedings Landslides and Engineered Slopes. Protecting Society through Improved Understanding: Proceedings of the 11th International & 2nd North American Symposium on Landslides, Banff, Canada, 3-8 June 20122012 2012, CRC Press, p. 265-271.

The paper by Harbitz referenced here is not a summary of events but the modelling of a displacement wave following potential failure of Åkneset mountain.

Good point – we will use a more appropriate reference in the revised paper.

Line 110 reference missing.

We will include a reference to Hermanns et al. (2012) for this statement.

Line 116: The "Berill fault" is not classified anymore as a neotectonic fault but a Caledonian fault that was gravitationally reactivated:

Schleier, M., Hermanns, R. L., Krieger, I., Oppikofer, T., Eiken, T., Rønning, J. S., and Rohn, J., 2016, Gravitational reactivation of a pre-existing post-Caledonian fault system: the deep-seated gravitational slope deformation at Middagstinden, western Norway: Norwegian Journal of Geology, v. 96, p. 1-24.

See also newest neotectonic map of Norway, this does not include the Berill fault any longer:

Keiding, M., Dehls, J., and Olesen, O., 2018, Neotectonic map of Norway and adjacent areas scale 1: 3 000 000.

We would like to replace the description of the Blikra et al. (2002) paper with examples from the more recent papers (e.g. Bellwald et al., 2019 and Mangerud et al., 2018).

Line 156: Out of the 80.000 events in the inventory a large amount are snow avalanches not considered as landslides in other languages than Norwegian, see discussion of the data in:

Herrera, G., Mateos, R. M., García-Davalillo, J. C., Grandjean, G., Poyiadji, E., Maftei, R., Filipciuc, T.-C., AufliÄ□, M. J., JeÅ¾, J., and Podolszki, L., 2017, Landslide databases in the Geological Surveys of Europe: Landslides, p. 1-21.

We will include a comment on that in the revised manuscript.

Line 360: there are landslide susceptible slopes south of the epicentre see susceptibility maps on: NVE Atlas

It is true that there are landslide susceptible slopes south of the epicenter. What we actually mean is that most of the area within a plausible distance limit and south of the epicenter is covered by water, which makes landslide observations less likely. We will rephrase the text.

Figure 8: I have the impression that the colour coding of the map and figure caption does not match. The yellow star is difficult to see.

It is true that there is an error in the caption (rockfalls are marked as blue squares, not grey). We will correct that and make the star better visible.

Line 378: Landslide susceptibility of slopes are mentioned and discussed again and again without making use of Norwegians open-source landslide susceptibility map covering the entire country. This should be rewritten, or the free data should be used.

We will take the available susceptibility maps into account and revise the manuscript accordingly.

Line394: What is a "deep seated rock avalanche"? Please look for the classification of rock avalanche in Hermanns et al. 2021 and older definitions mentioned therein. There are "deep seated gravitational slope deformations" and "rock avalanches" but this new term should be defined when proposed:

Hermanns, R. L., Penna, I. M., Oppikofer, T., Noël, F., and Velardi, G., 2022, 5.06 - Rock Avalanche, in Shroder, J. F., ed., Treatise on Geomorphology (Second Edition): Oxford, Academic Press, p. 85-105.

This is indeed not correct terminology. What we mean is "rock avalanche".

Line 396. In Norway most of the landslide-prone areas are not remote. 2.8 Mio inhabitants live on ground that falls in the susceptibility zones of quick clay slides, this is half of the population. Landslides can occur in nearly all urban environments.

This is a good point, and we agree the sentence is not well formulated. What we actually mean is that many landslides occur in remote areas where small rockfalls and landslides go unnoticed. We will correct the text accordingly.

Line 416: I think there is a bit of dispute about that earthquakes might trigger rock avalanches in Norway and on latest conferences opposing opinions were presented. There is no > M6 earthquake in the seismic and historic records. Keefer et al. 1984 and Rodriguez et al.1999 indicate M 6 as a mínimum magnitude to trigger rock avalanches. This conclusion would require a discussion if M6 earthquakes are not possible or if there is a deficiency of such events in the historic and instrumental records. Newest research on paleoseismicity using landslide distribution suggest different: see Bellwald et al., 2019; Mangerud et al., 2018.

This is a very interesting discussion. In our view, there is no reason why we should not experience M>6 earthquakes in Norway, and there are indeed an increasing number of indications that such events have occurred in the past. At the same time, stress patterns are changing over time in Norway, and it is very difficult to estimate the return periods of such large events. We will include a discussion of this issue in the revised manuscript.