We would like to thank the referee 1 for the careful reading and the valuable comments that helped us to improve the manuscript. Hereafter, the item-by-item response for each comment is provided.

Comment 1: The paper aims to contribute to the understanding of the link between innovation, productivity and exports by considering both self-selection and learning effects. French SME data from about 150 SMEs shows that the average exporter has higher productivity than the average non exporter, and that the average innovative form has higher TFP than the average non-innovative firm.

The econometric analysis conducted in the paper is interpreted by the authors as empirical support for export self-selection into exports, but export premium only among firms with 10% export rate or more. Based on these results, the paper recommends the politicians to pick winners and support exporters.

My overall assessment is that the paper is poorly written and contains severe statistical problems. In addition, the information about the number of observations in the different equations is unknown to the reader. In addition, the suggested policy recommendation is not supported by this paper.

Response 1:

We would like to thank the reviewer for raising this comment. Indeed, our sample includes 86 SMEs, which has been expressed in section 3.1 'data source'. Regarding the number of observations, it may differ from an equation to another. In order to better clarify the number of observations of each equation in light of the referee 1's comment, we will add the column of observations' number to each table in the final version.

Regarding the statistical and policy recommendation remark of the referee 1, we will provide further details while we respond to next comments.

Comment 2: Let me start with Table. It is estimating ln TFP as a function of the binary variables (a) innovation, (b) product innovation, (c) process innovation, (d) marketing innovation, (e) organisation innovation, (f) R&D and (g) patents for the what I'll guess is about 150 observations. The seven equations use only one co-variate (sales) and two sector dummies. While the coefficients for R&D and

patents are non-significant, the innovation indicators are all significant in the other five equations. But since there must be (substantial?) overlapping between the seven measures of innovation, I have problem finding the idea with the analysis conducted in the table.

Response 2:

The number of observations for different equations in the table 6 is 86. In table 6, each row indicates one equation and we have not simultaneously used all innovation indicators in each equation. In the other word, each equation contains one innovation indicator. The indicators of innovation, product innovation, process innovation, marketing innovation, and organisation innovation are as innovation output and R&D and patents are as innovation input in an innovation process. Using R&D and patents as measures of firm-level innovation has at least two major limitations: 1) all innovative efforts do not lead to innovation output, and 2) only a few innovative SMEs invest in R&D activities. It is clear that the effects of innovation input and output on TFP could be different.

Comment 3: During the last 20 years, a large number of firm level studies have examined the link between innovation and productivity using various production function approaches properly specified. Table 6 suggests that firms with higher TFP also conducts innovative activities. But it tells nothing about innovation premium (that innovation causes higher TFP). Both TFP and innovation can be explained by a third factor or innovation can be explained by TFP. My arguments are about the same regarding the export premium reported in table 5; the authors find that some variables are correlated and interpret this relation wrongly as a causality.

Response 3:

Regarding the comment of the referee 1 on the link between innovation and productivity, we would like to raise the following explanations: First, our specified model is based on Bernard and Jensen (1999). Another constraint is the limit of the number of observations, for which we can not use more variables.

We would like to mention that each row of table 6 indicates one equation in which the productivity is the dependent variable and is as a function of one

innovation indicator and other independent variables. Therefore, the β coefficients show the effect of one type of innovation on productivity. Therefore, the estimated β shows the innovation premium. Certainly, adverse relation can exist, but the aim of this section of paper is not to verify it. The effect of other variables on productivity has been considered in table 9, in which innovation impact TFP through R&D, HK and SFC is investigated. In this paper, we talk about the relationship between the variables and we do not consider the causality between variables. In order to avoid such interpretation, we will clarify this point in the final version.

Comment 4: In equation 8, the paper estimates the association between TFP and a subsample consisting of only firms defined as innovative, and finds no significant estimates. The number of observations in these selection biased equation must be very low. Only 24 firms are market innovators according to Table 4. If the paper estimates firms that are market innovators exclusively (no other types of innovations) the number of observations on with this characteristic should be very low.
In equation 8, the paper continues with an additional split of the sub-sample into firms with less than 10% export-intensity and firms with more than 10%. Still, the paper avoids to inform about the number of observations in each equations. Table 8 reports a significant point estimates for firms that have conducted an organization innovation and exports more than 10% of their production. In my opinion, the estimated subsamples in tables 7 and 8 are almost useless. There are too many statistical problems with the estimates (and then we could add the econometric problems with identification).

Response 4:

As it is raised by the referee, the number of observations for marketing innovation equation is relatively low and, hence, the result of this equation must be interpreted warily. However, our sample is representative comparing to the other innovation surveys such as CIS (The Community Innovation Survey) and ESEE (Encuesta Sobre Estrategias Empresariales). For instance, Bellone, Guillou, & Nesta (2009) use data from the CIS survey of French companies for the period 2002-2004. The authors report that 82% of the companies in their sample export. This percentage is very far from the percentage of French exporting companies which represent only 11.8% in 2011 according to INSEE. Besides, the same percentage of exporter firms

(80%) is reported by Becker & Egger (2007) using the sample from the Ifo Innovation Survey. Their sample is certainly biased in favor of large firms. The same issue exists in Cassiman & Martinez-Ros (2007), Caldera (2009) and Máñez-Castillejo, Rochina-Barrachina, & Sanchis-Llopis (2009), in which a panel of Spanish manufacturing companies during the period 1990-1999 is exploited from the sample of the ESEE survey. Surprisingly, their sample contains only 5% of all Spanish SMEs and more than 50% of all large Spanish companies, which lead to a non-representative sample.

As another advantage of our IDEIS survey compared with CIS is to ask questions about the R & D to all companies whatever their innovation status. This defect in the CIS survey is indicated by Halpern & Muraközy (2012): "From the viewpoint of our analysis it is fairly unfortunate that these questions are only asked of new firms. As a consequence it is not possible to estimate their effect on innovative output". In addition, the IDEIS survey is a face-to-face interview with the business leaders and as referee 2 remarked, although our data is small but it has "a unique advantage in the sense that it includes information on the willingness to export (based on self-declaration of non-exporting firms) and not simply on effective firm exports". This result has not been investigated by other works.

Regarding the remark of referee about the benefit of using the export-intensity variable, this latter lead to identify that the learning effect is associated with a substantial presence in foreign markets.

Comment 5: Section 5 estimates a CDM-type of three-step procedure with propensity to innovate in step 1, TFP in step 2 and willingness to export in step 3. Here I assume that the paper only consider the subsample consisting of non-exporting firms, and the paper now introduced set of controls (human capital, financial capital and market location) not used in the previous equations. Why not?

Response 5:

As mentioned by the referee, the model is applied to the sample of non-exporting enterprises with total population of 63. In light to the referee comment, the column of number of observations will be added to the table. The previous equations aimed at estimating the TFP model, but the present equation concerns the innovation such as dependent variable. The effect of other variables on productivity has been considered in table 9, in which the innovation impacts TFP through R&D, HK and SFC.

Comment 6: In line with what could be expected from earlier paper applying the same approach on the link between innovation, productivity and exports, the paper finds that R&D is positively associated with innovation, that innovation is positively associated with productivity and that productivity is positively associated with exports (In this case, the willingness to exporting firms to enter foreign markets).

A very first step for a major revision of the paper must be a proper summary statistics and a correlation matrix. A proper information on the number of observations are also important. Regarding the application if the CDM-model, which is the only potential contribution of the paper, I would recommend the authors to apply the GSEM-approach for heterogeneous firm suggested by Baum et al (Economics of Innovation 2017, Issue 1-2)

Response 6:

As suggested by the referee, we will add the summary statistics, correlation matrix and the number of observations to the final version.

Our sample of firms has the following characteristics: 1. all of the firms are located in the same region and have industrial activities; 2. the firms are from 10 to 250 workforce and their size are close to each other; 3. One important difference of the firms relies in their level of technology which is considered in productivity equation. Consequently, the sample of firms used in this work is relatively homogenous and the application of the CDM-model is appropriate.

Moreover, if we separate the firms of different technology level and we estimate an equation for each technology level, we will face with the constraint of number of observations.

In addition to the contribution of this paper mentioned by the referee, the other contribution of the paper is the study of effective premium export which is indicated in first paragraph of page 15 and shows that the exports can associate TFP if the export is much intensive.