The revised manuscript has been greatly improved, but we still have some (very) minor suggestions, outlined below

Thank you for all your corrections. We have made all of them.

-L40: of larger species and genetic diversities

We replaced "a wider species and genetic diversity" by "a wider species diversity and genetic diversity"

-L47: the syntax issue remains: it should be "other yeast species, belonging to the Kazachstania genus, were dominant in 54% of sourdoughs" : with commas, otherwise it means that Saccharomyces belongs to Kazachstania

corrected

-L82: delete the second occurrence of "of S. cerevisiae" in the sentence.

corrected

-L83: who have or which has?

corrected with "which has"

-L88-89: still unclear and awkward (you define them as ascomycete or basidiomycete and then say they're mostly fungi, and then only later give their definition). I would define yeast first, e.g. " Yeasts are organisms growing mainly as single cells and with sexual states not enclosed in fruiting bodies, typically belonging to ascomycete or basidiomycete fungi."

We now started the paragraph by "Yeasts, are organisms growing mainly as single cells and with sexual states not enclosed in fruiting bodies, belonging to ascomycete or basidiomycete fungi. »

-L94: " The factors determining the presence of these species in sourdough"

corrected

-L161: define OTU at first occurrence

done

-L193: "Different roots were tested and the root placement did not affect the tree topology."

We replaced our sentence by "The tree topology did not change with the chosen root."

-L210: To investigate the relationship between beta-diversity and bakery practices, we…

corrected

-L267 and elswhere: bread-making

Bread-making or bread making, either way is corrected. We have chosen to use "bread making"

-L269 : breaK-making ?

Thank you !

-L270 : is presented

corrected

-L281 and elsewhere: practice group (no plural as it qualifies another term afterwards)

corrected

-L299 : fungal genus (no plural as it qualifies another term afterwards)

corrected

-L307 : replace « both » by « the » : as you compare the methods you cannot use « both » ; if you keep « both », delete « the same » and list them

corrected

-L309 : the Cladosporium genus

corrected

-L313 : as its ITS sequence is identical with that of Candida..

corrected

-L315 : has been further analysed using..

corrected

-L320 communities or the fungal community

corrected

-L328 : the beta diversity was analysed

corrected

-L344 : remove the comma or add one after cerevisiae

corrected

-L365 : comma after bulderi

corrected

-L375 : (K. australis) and sauerkraut

corrected

-L585-6 : analysis of the filamentous cheese fungi P. roqueforti and P. camemberti also revealed genetically differentiated cheese populations

replaced

-L588 : Roquefort cheeses

corrected

-L590 : of the soft-cheese making

corrected

-L591 : different kinds ; capitals for Brie and Camembert

corrected

-L596 : in organisms used for fermented product making

corrected

-L598 : standardize products OR to meet

corrected

-L604-605 : dynamicS..remainS

corrected

-L606 : « can evolve ».. but really the conclusion of this study is wrong, as shown in Ropars et al 2020 : the so-called « wild » strain belongs to the domesticated cluster, it is not at all a wild strain. The observations reported are therefore most likely due to phenotypic plasticity. I would delete this sentence.

Ok, we deleted it and the associated reference as well

-L617 : revealed instead of evidenced

corrected

-L619 : insightS

corrected

-Figure 4 : change fonts, species names are not readable ; I still don't understand this figure : what is represented on the Y axis of bars ? It's really difficult to see the difference between the bars from farmer or artisanal practices.. Maybe two separated maps would help, as two panels of the figure ? Or at least a symbol (e.g. an asterisk) below the bars of one of the practices ? As it stands, it is not useful to illustrate the difference between practices.

We have improved the figure and changed the legend to

***"Figure 4.** Yeast species composition of 38 French sourdoughs. Each bar represents one sourdough and is placed on the map where the sourdough was collected. Sourdoughs coming from bakers with a "farmer" practice are bordered in light blue and labelled with an "F" while sourdoughs coming from bakers with "artisanal" practice are bordered by dark blue and labelled with and "A". Each species is represented by a different color. The relative abondance of each species, estimated by metabarcoding analysis, is represented by the area of each bar, as shown at the top left."*

-L857 : LAB : define all abbreviations in all legends, a figure should be understandable by itself

corrected

-L891 : based on the Unifrac distance (define briefly)

We now described briefly the distance

-The legend of the figure 5 is unclear. Make complete sentences (the term « A) » cannot be a subject or remove the bracket and say « the panel A shows »). Panel A : what are the colors ? (everything should be described in a figure).

We replaced the legend figure 5 by

***Figure 5.** Clustering of sourdough fungal communities based on weighted UniFrac distances and association with baking practices. The weighted UniFrac distance between communities takes into account the relative abundance of the observed species as well as their phylogenetic relationships. In*

all panels, the clustering of sourdoughs fungal communities based on their Unifrac distances is shown on a tree on the left and on a Principal Component Analysis (PcoA) in the center. Panel A shows the three groups of fungal communities formed based on their weighted UniFrac distances. Panels B through E highlight the distribution of a principal variable in these three groups of fungal communities. The distribution is shown by coloring the different levels of the variable on the tree and on the PCoA but also as a barplot on the right side of the panel. Panel B shows the distribution of the two types of bread making practices, panel C the dominant yeast species, panel D the use of a commercial yeast starter, panel E the amount of bread made each week. Group 1 contains sourdough fungal communities whose dominant species is a Kazachstania species. Group 2 contains sourdough fungal communities whose dominant species is Saccharomyces cerevisiae. Group 3 contains sourdough fungal communities in which two yeast species co-occurred, one being S. cerevisiae. The yeast genus in panel C is abbreviated with, C. for Candida, D. for Dipodascaceae, K. for Kazachstania, S. for Saccharomyces, T. for Torulaspora.

-L894 : the panels B to E show (not shows)

The Figure legend has changed (see above)

-L894, L896 : remove the signs « : »

The Figure legend has changed (see above)

-L896-7 : number of groupS ; what groups ? I don't understand what these bars represent, neither the X or the Y axes

The Figure legend has changed (see above)

-L902 : define all abbreviations in all legends, including genus names

The Figure legend has changed (see above)

-L906 : coma after axes

The Figure legend has changed (see above)

-L908 : a symbol or symbolS, but symbols should be specified with their meaning as well as colors, in the text and not only on the figure.

We have added to the legend "Sourdough strains are indicated in blue and non-sourdough strains in red. Kazachstania humilis strains are indicated by a circle and Kazachstania bulderi strains by a triangle."

-L912 : Cellt27 is not defined and it would be easier to define abbreviations in the same order as on the plot from left to right ; explain the color meaning in the legend text too. A legend should describe everything on the figure, as often the authors often don't realize how hard it is to understand a figure we have not drawn.

We have completed the figure legend.

Figure 7. Ratio between the sourdough strains mean and the non-sourdough strains mean values of each quantitative variable measuring fermentation performance: time to reach the maximum production rate (tVmax), maximum CO2 production rate (Vmax), maximum CO2 production (CO2max), log of population size after 27 hours of fermentation (Cellt27), cell mortality after 27 hours of fermentation (Mortality), fermentation latency phase (t1g). Confidence intervals are indicated by bars. Mean ratio and confidence intervals are shown in red for Kazachstania bulderi and blue for Kazachtania humilis.