



La team



Geoffrey



Elizabeth



Julien

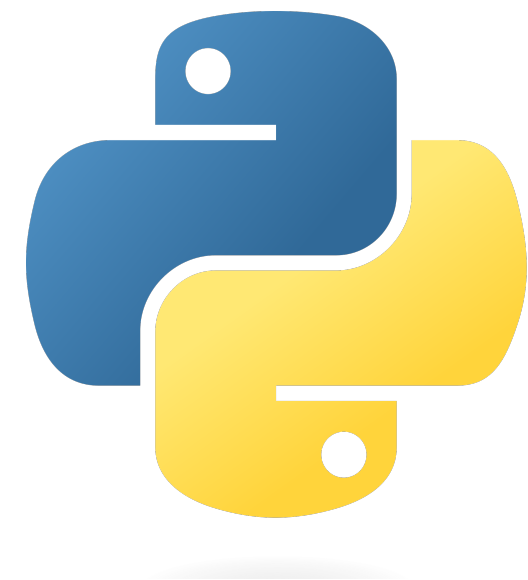


Problématique

Comment améliorer le sentiment de bien être des auditeurs à travers la musique ?



Les outils



Les bases de données

```
1 df_tracks_features.info()
```

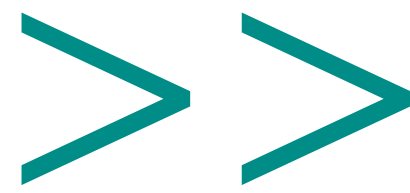
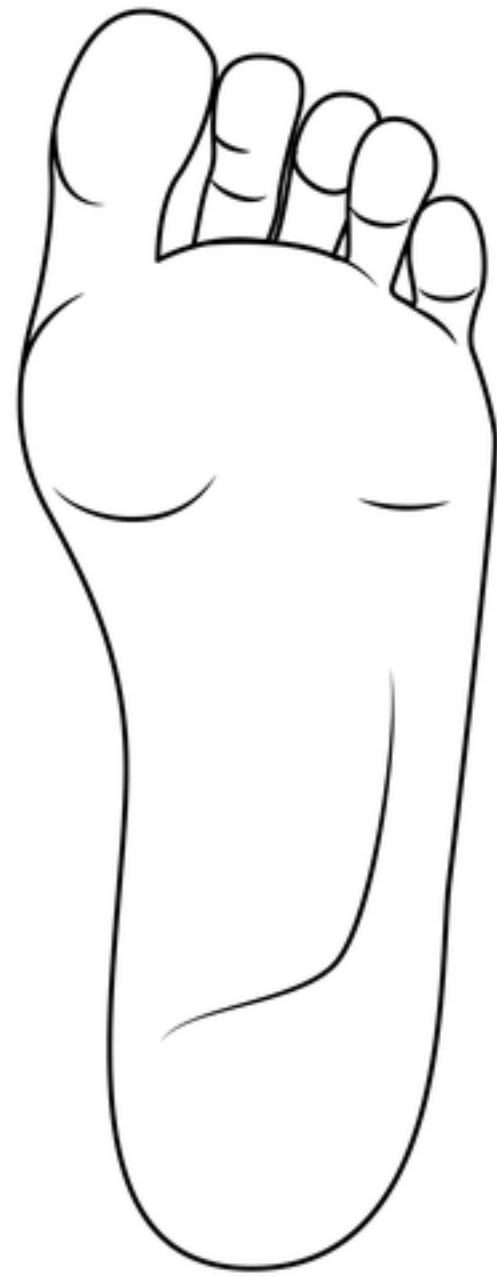
```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 1204025 entries, 0 to 1204024
Data columns (total 24 columns):
#   Column                Non-Null Count  Dtype
---  -
0   id                    1204025 non-null object
1   name                  1204025 non-null object
2   album                 1204025 non-null object
3   album_id              1204025 non-null object
4   artists               1204025 non-null object
5   artist_ids            1204025 non-null object
6   track_number          1204025 non-null int64
7   disc_number           1204025 non-null int64
8   explicit              1204025 non-null bool
9   danceability          1204025 non-null float64
10  energy                1204025 non-null float64
11  key                   1204025 non-null int64
12  loudness              1204025 non-null float64
13  mode                  1204025 non-null int64
14  speechiness           1204025 non-null float64
15  acousticness          1204025 non-null float64
16  instrumentalness       1204025 non-null float64
17  liveness              1204025 non-null float64
18  valence               1204025 non-null float64
19  tempo                 1204025 non-null float64
20  duration_ms           1204025 non-null int64
21  time_signature        1204025 non-null float64
22  year                  1204025 non-null int64
23  release_date          1204025 non-null object
dtypes: bool(1), float64(10), int64(6), object(7)
memory usage: 212.4+ MB
```

```
1 df_charts.info()
```

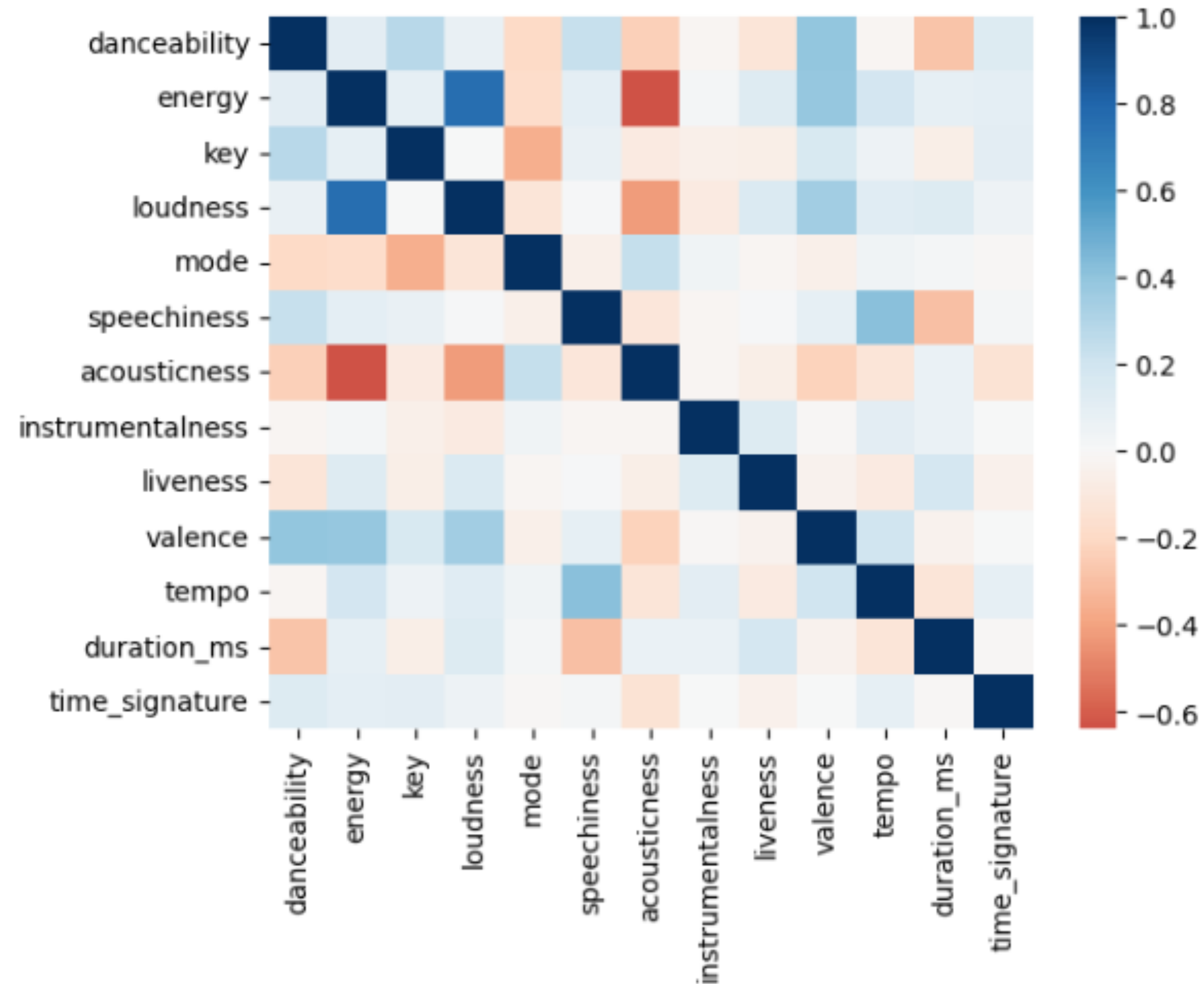
```
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Data columns (total 9 columns):
#   Column      Dtype
---  -
0   title       object
1   rank        int64
2   date        object
3   artist      object
4   url         object
5   region      object
6   chart       object
7   trend       object
8   streams     float64
dtypes: float64(1), int64(1), object(7)
memory usage: 1.8+ GB
```



C'est quoi, la corrélation ?



Heatmap des caractéristiques

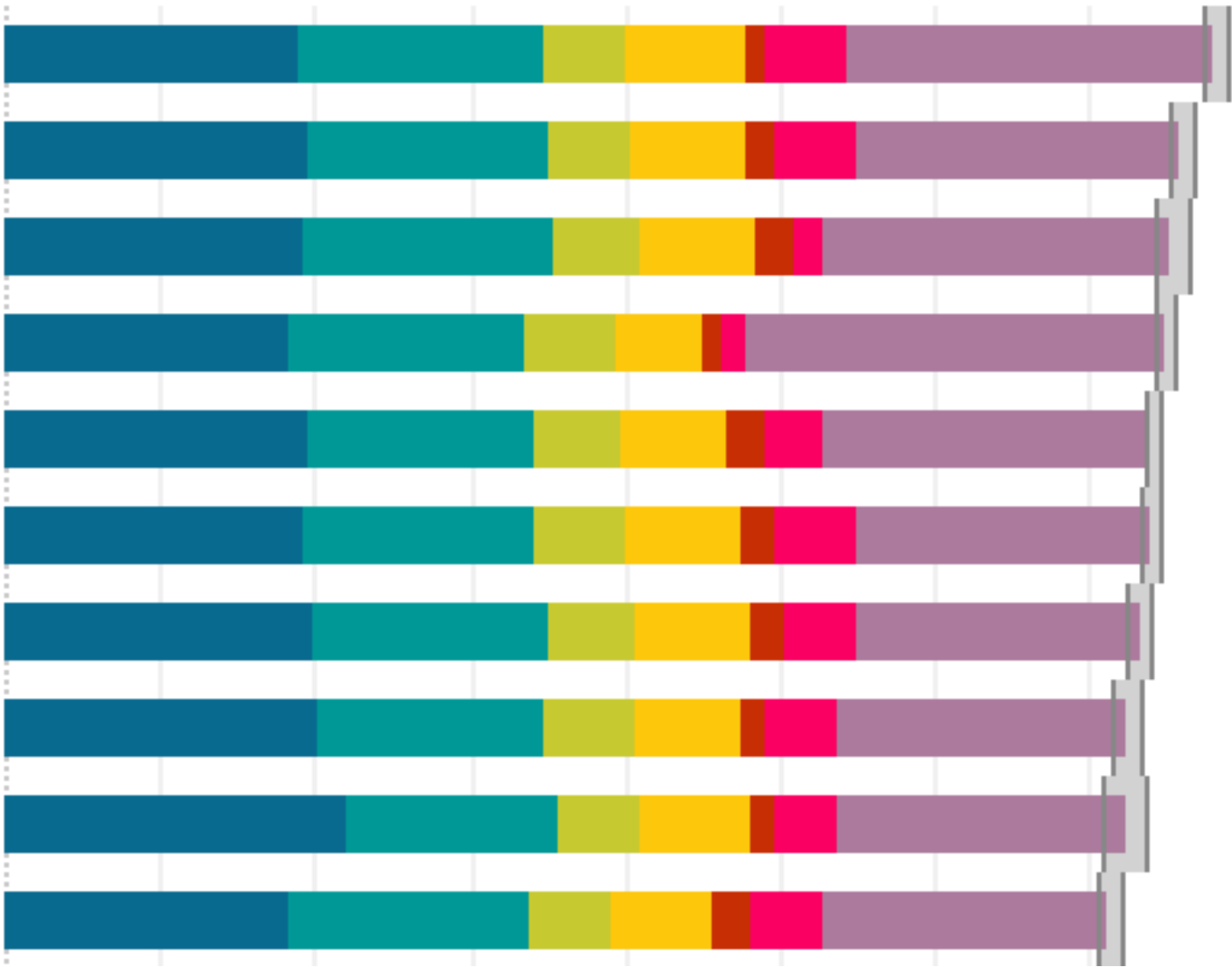


Problématique

World happiness report 2023

Country

- Finland
- Denmark
- Iceland
- Israel
- Netherlands
- Sweden
- Norway
- Switzerland
- Luxembourg
- New Zealand



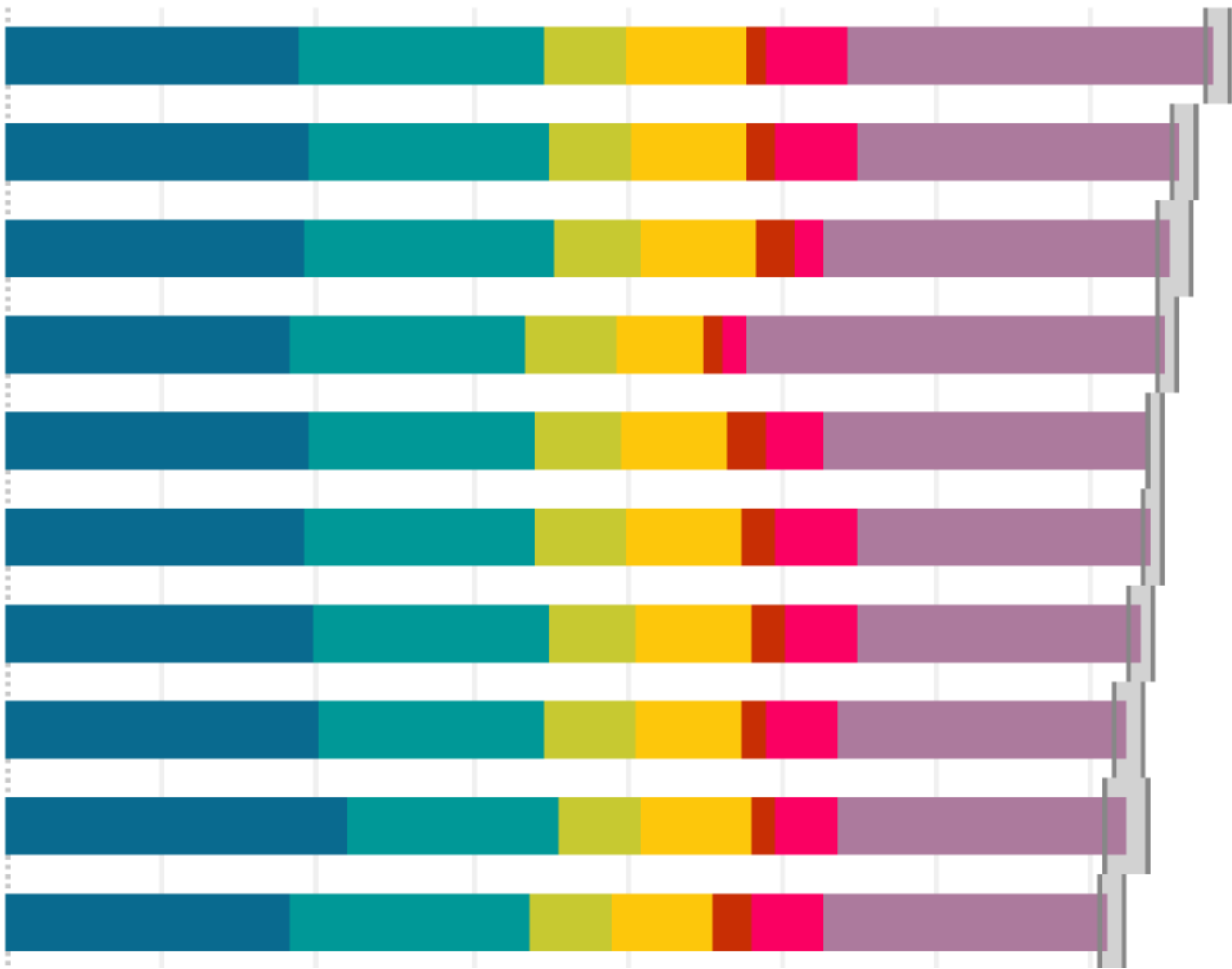
Source



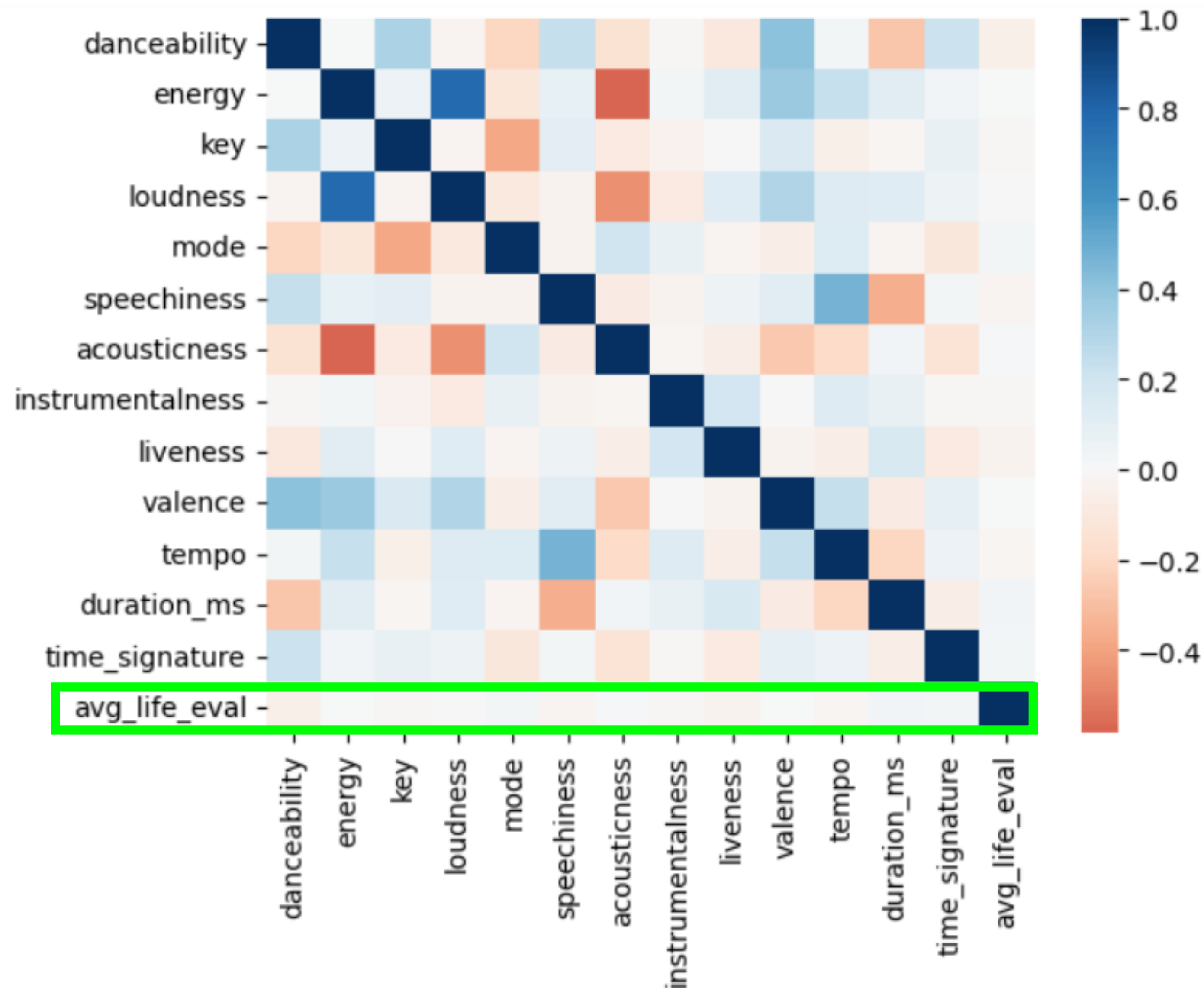
Problématique

World happiness report 2023

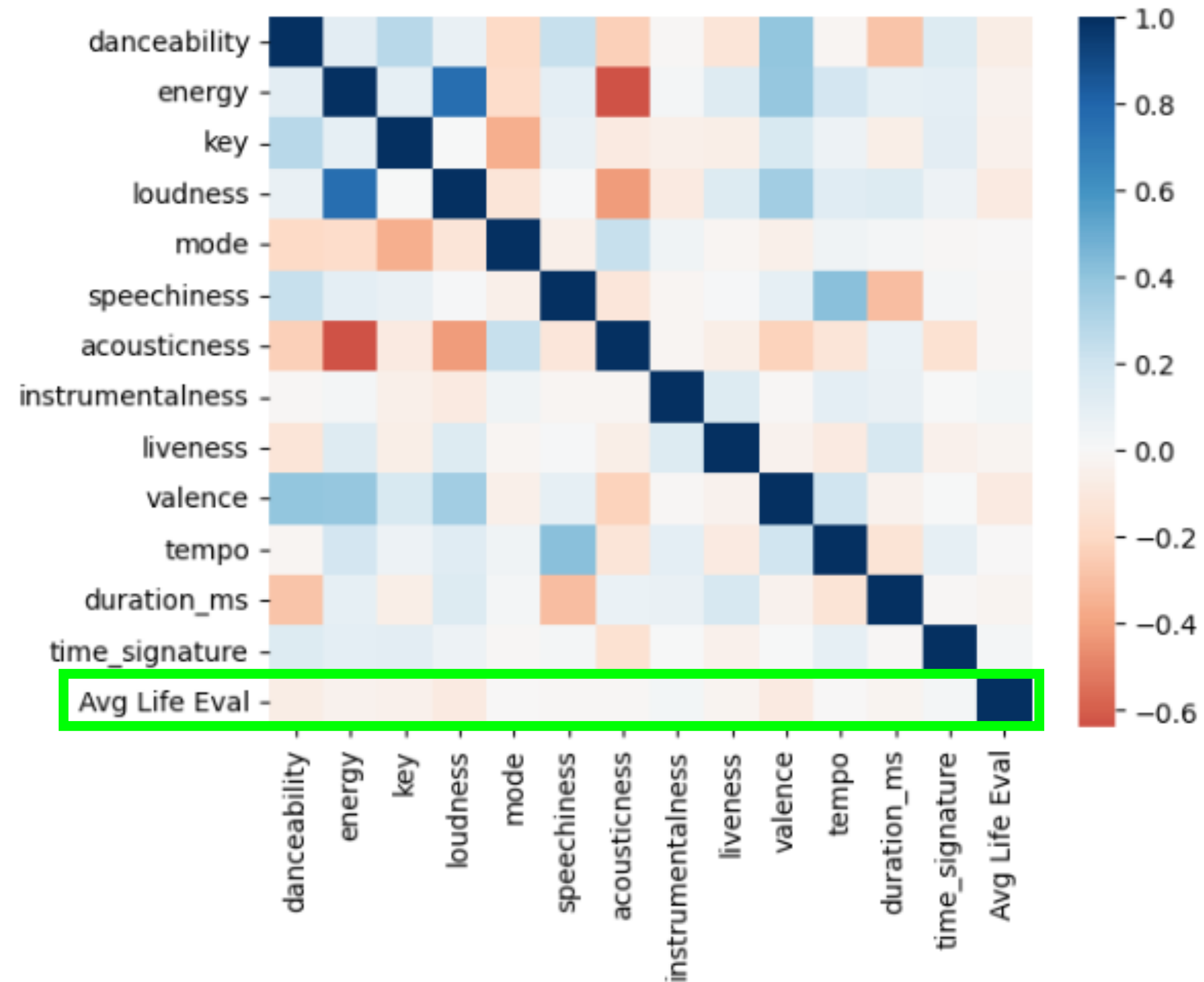
- Country
- >> Finland
- >> Denmark
- >> Iceland
- Israel
- >> Netherlands
- >> Sweden
- >> Norway
- Switzerland
- Luxembourg
- New Zealand



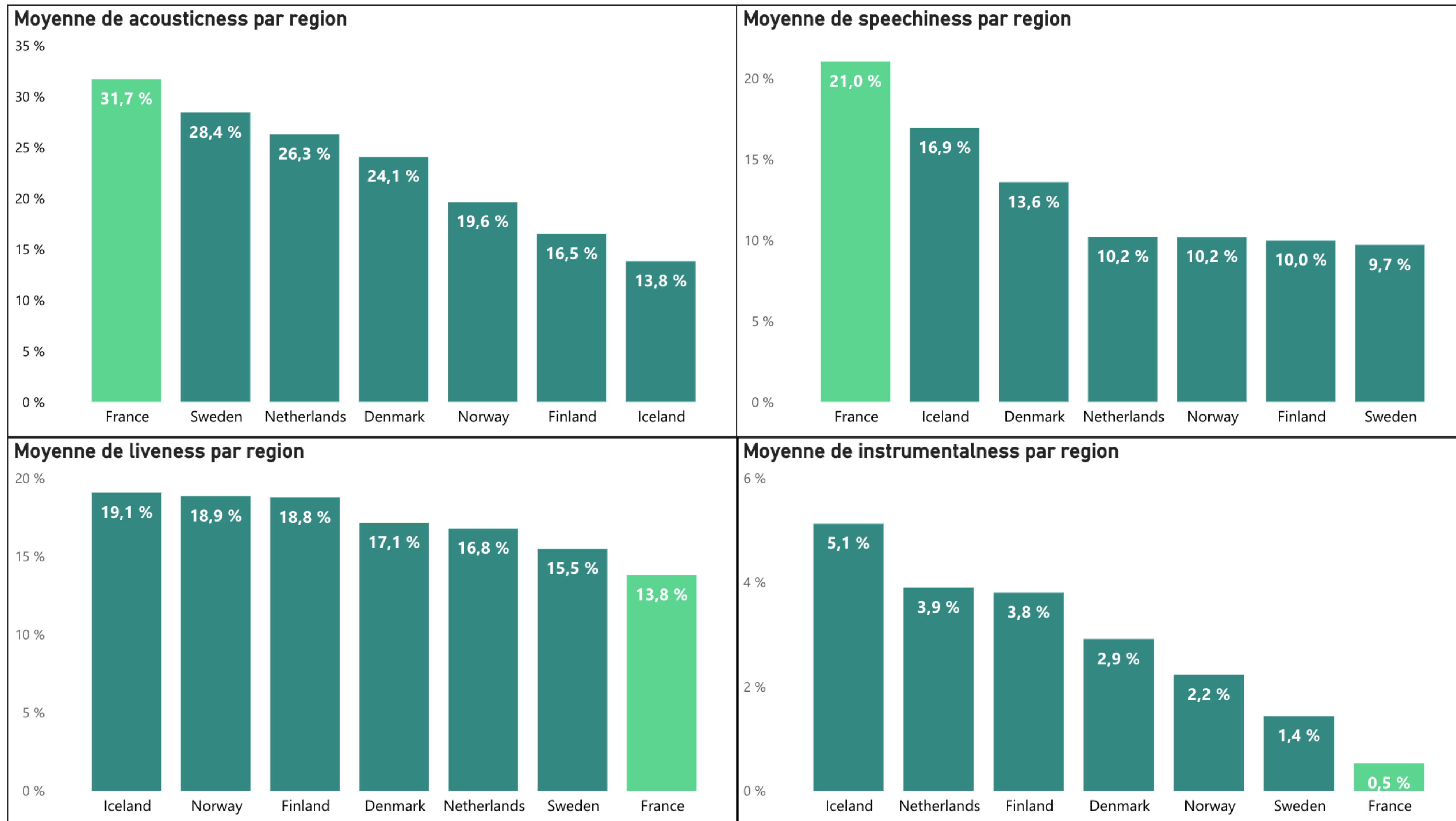
Heatmap Europe et des notes d'happiness



Heatmap Monde et des notes d'happiness



Approche graphique

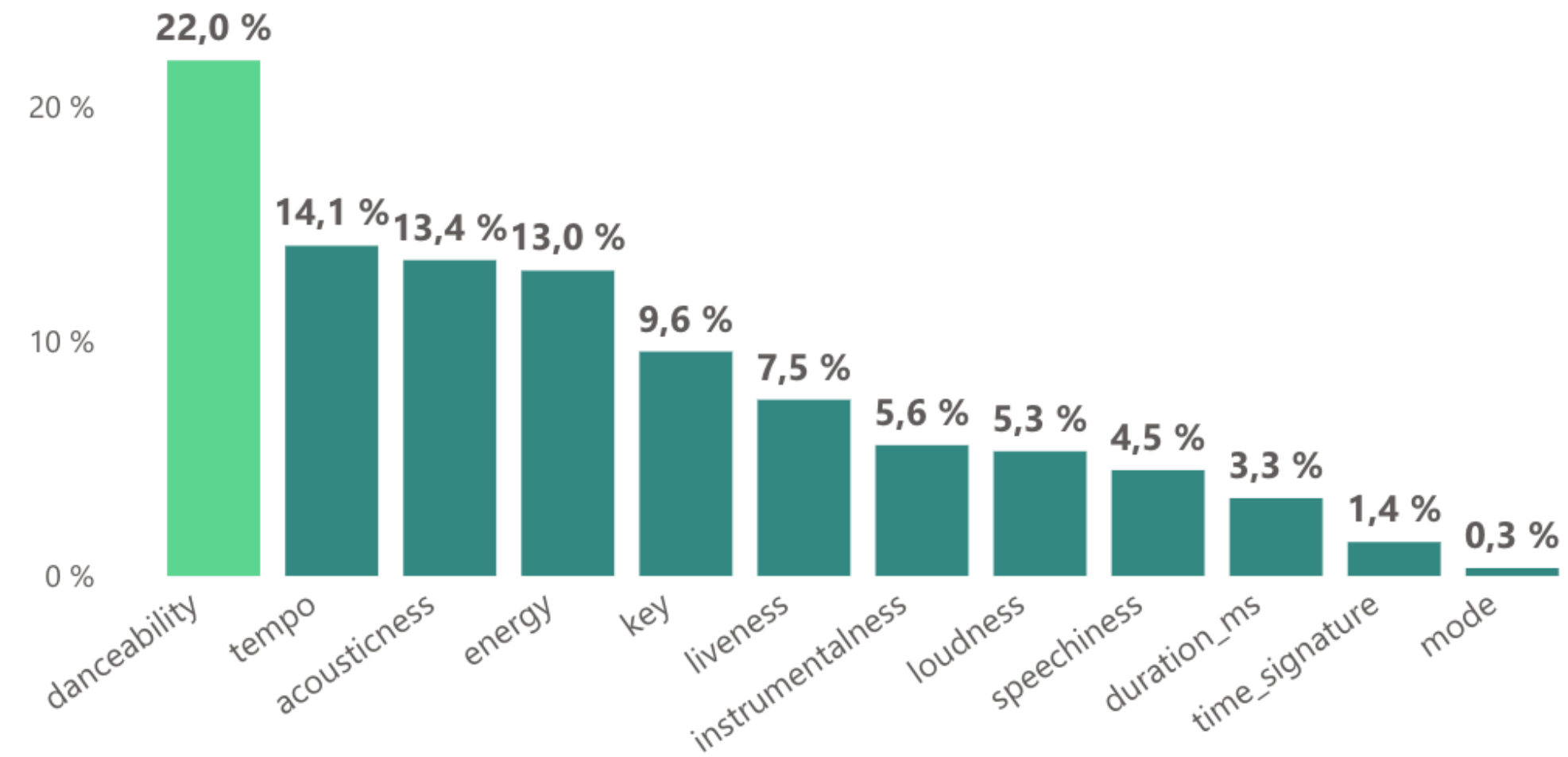


Approche machine learning

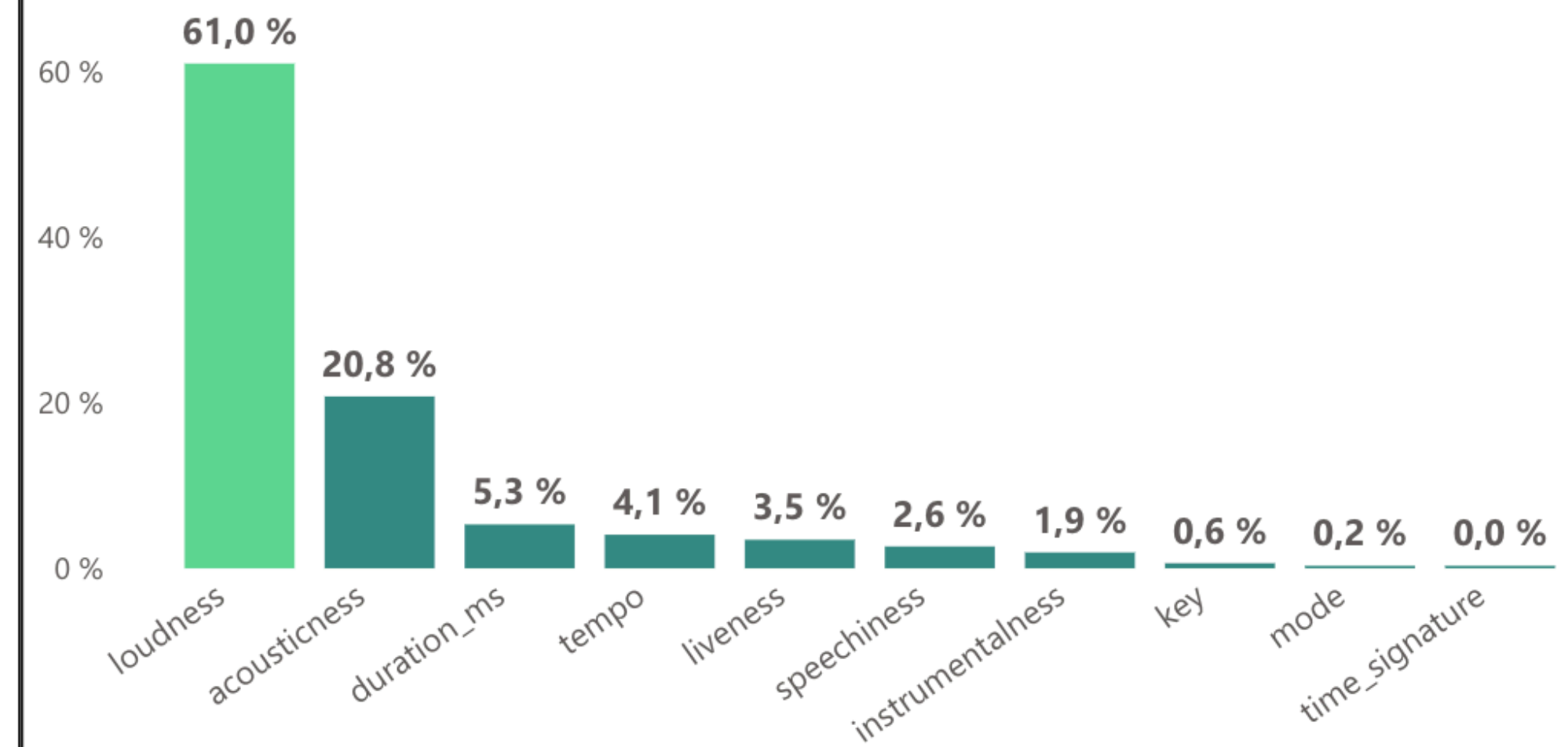


Approche machine learning

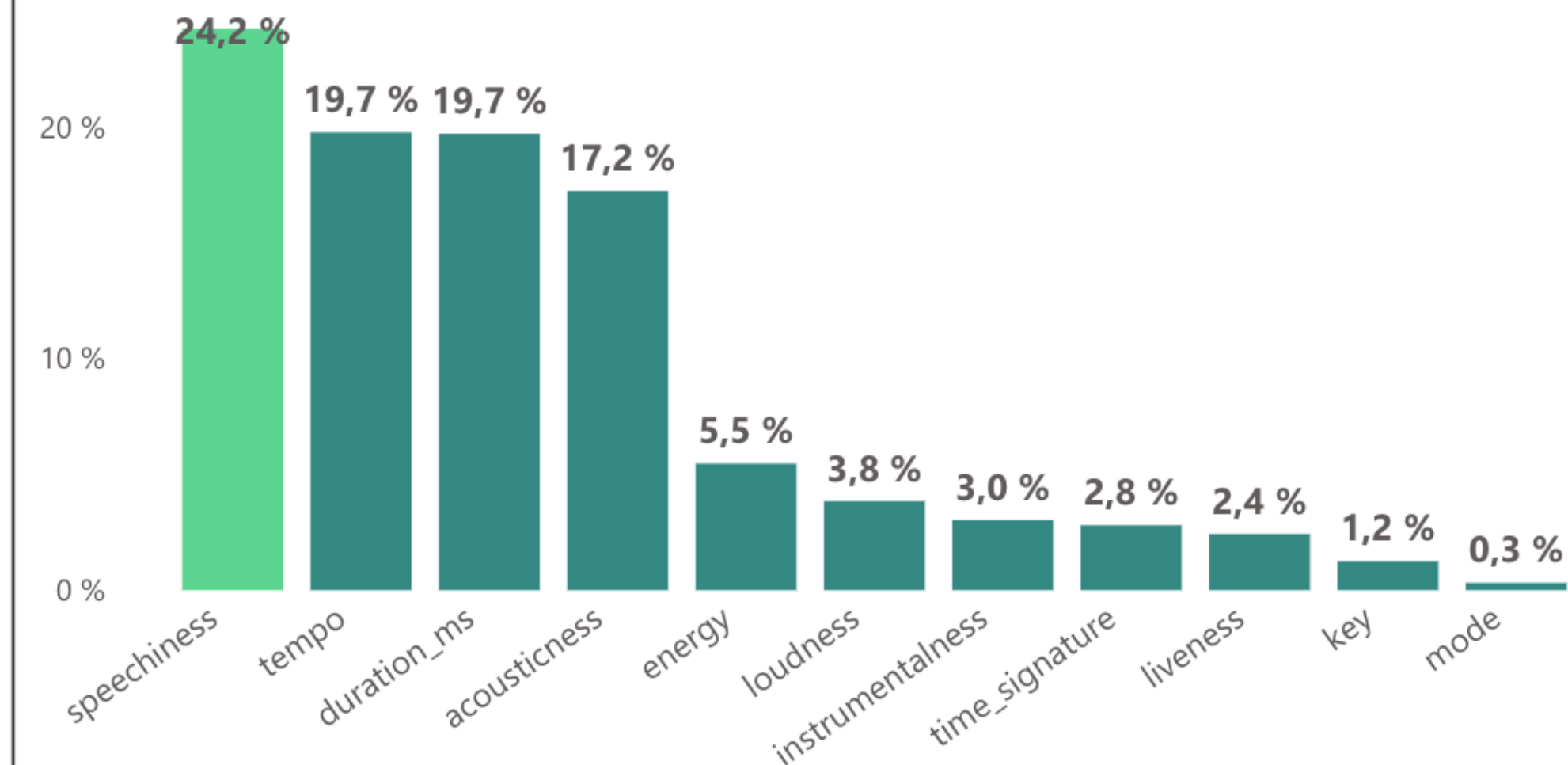
Impact des caractéristiques sur la valence



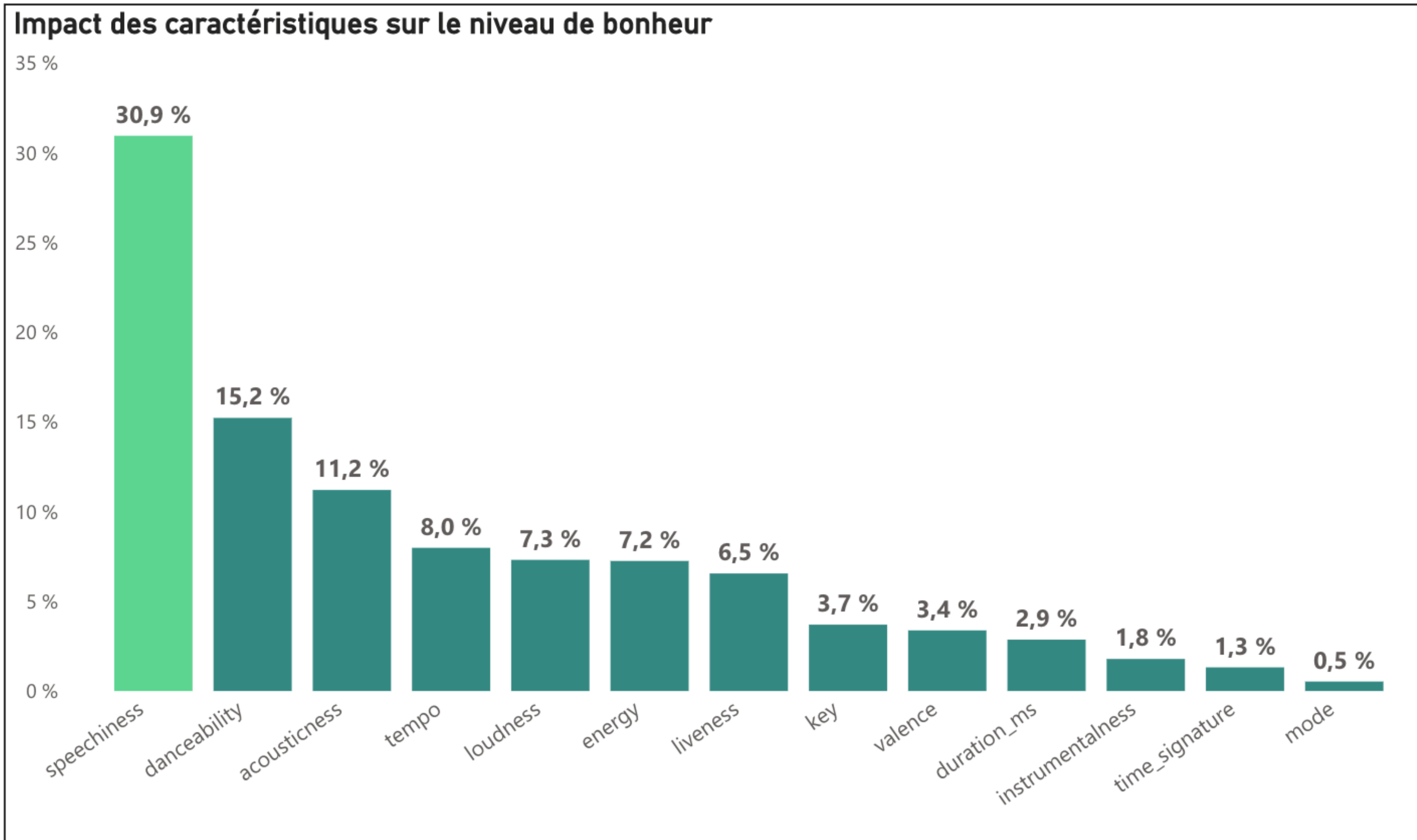
Impact des caractéristiques sur energy



Impact des caractéristiques sur la danceability



Approche machine learning



Conclusion

>> **La caractéristique ‘speechiness’ a un impact sur le bien-être ressenti par l’auditeur**



Axes d'amélioration

- >> **Identifier les profils des auditeurs**
- >> **Affiner les caractéristiques qui rendent heureux**
- >> **Proposer aux clients des chansons qui
le rendent heureux sans perdre son identité musicale**

