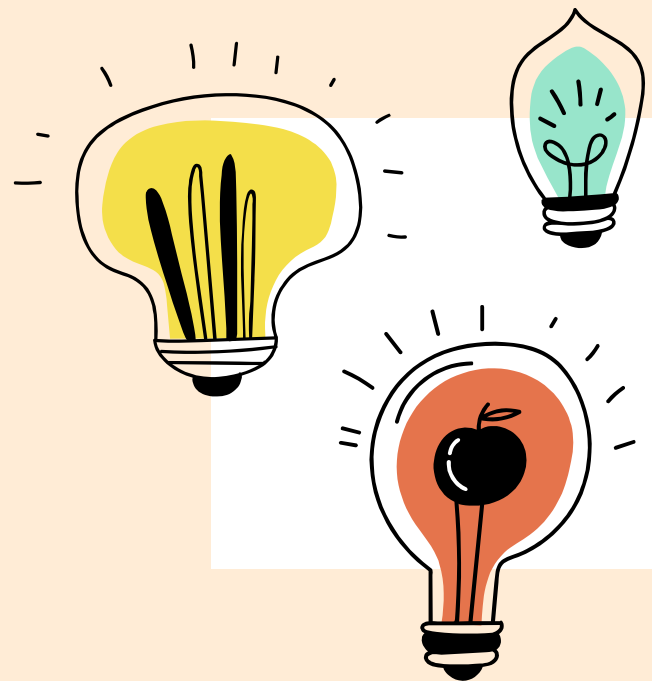


# Chauffage domestique : étude de la consommation



**01****Introduction**

Enjeu de la mission

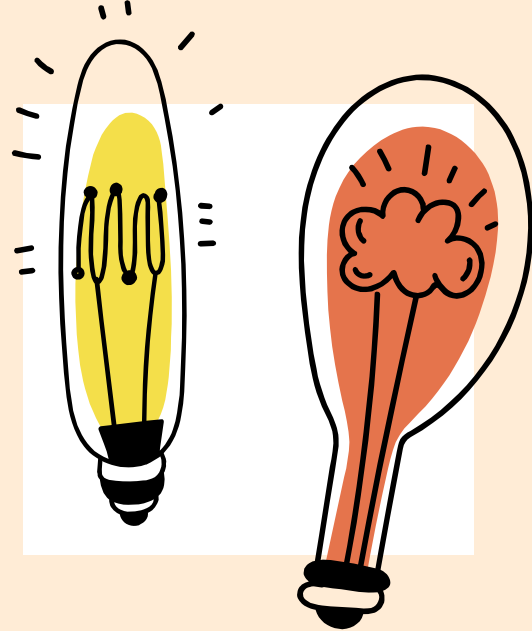
**02****Présentation des données****03****Correction de l'effet  
Température****04****Désaisonnalisation et  
stationnarisation****05****Prédictions**

Holt-Winters et SARIMA

**06****Conclusion**

# Sommaire

# 01 Introduction

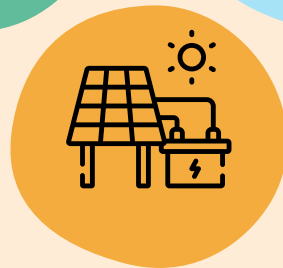
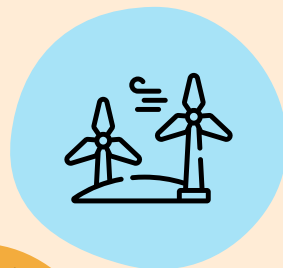
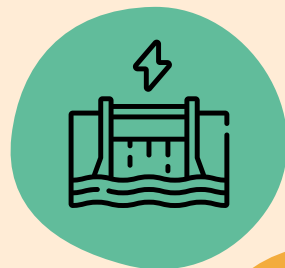


# Qui sommes-nous ?

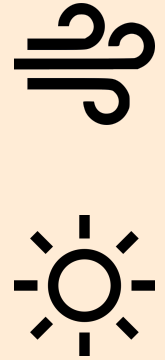
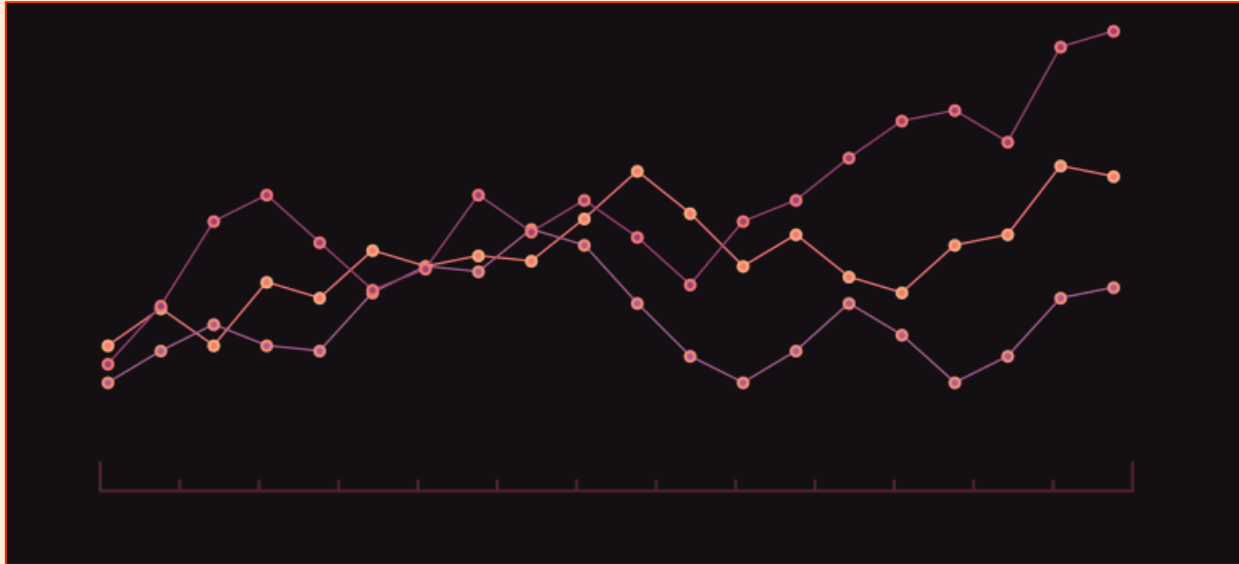


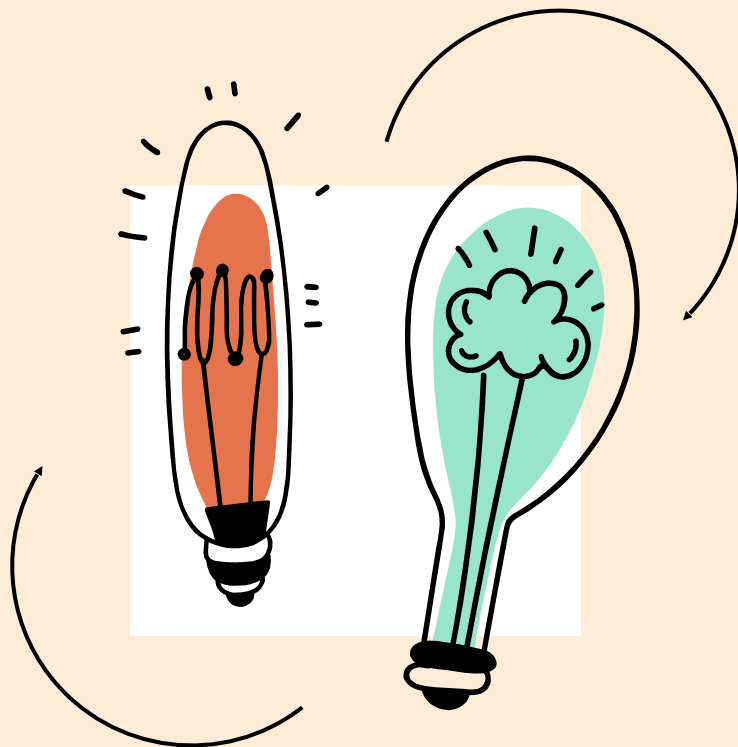
**ENERCOOP**

Depuis 2007



# Notre problématique

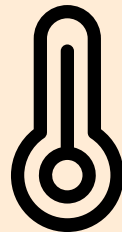
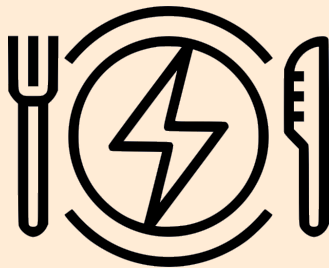




# 02

## Présentation des données

## Quelles données ?



Effet température

DJU

CEGIBAT

# Quelles données ?



**Date**

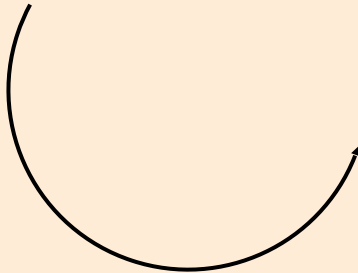


**Consommation**



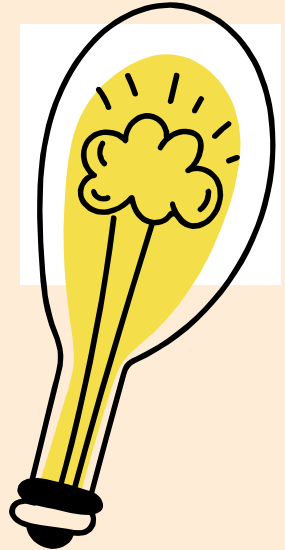
**DJU**



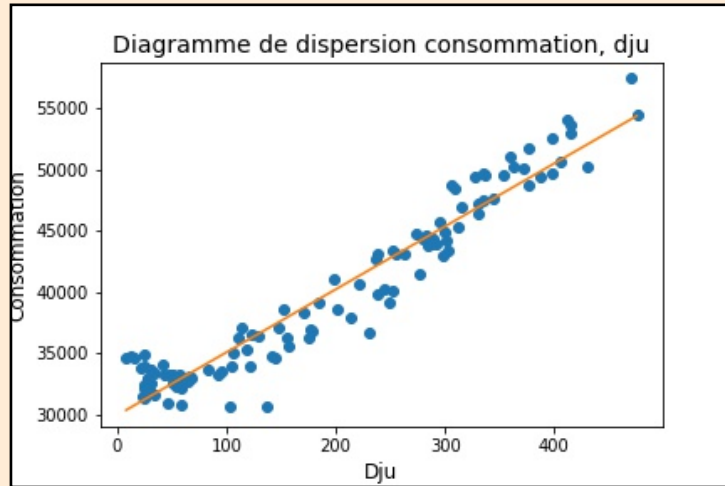


# 03

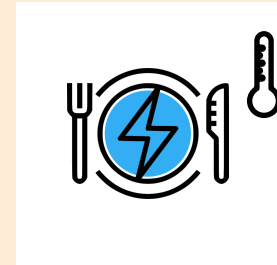
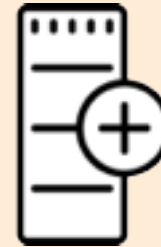
## Correction de l'effet Température



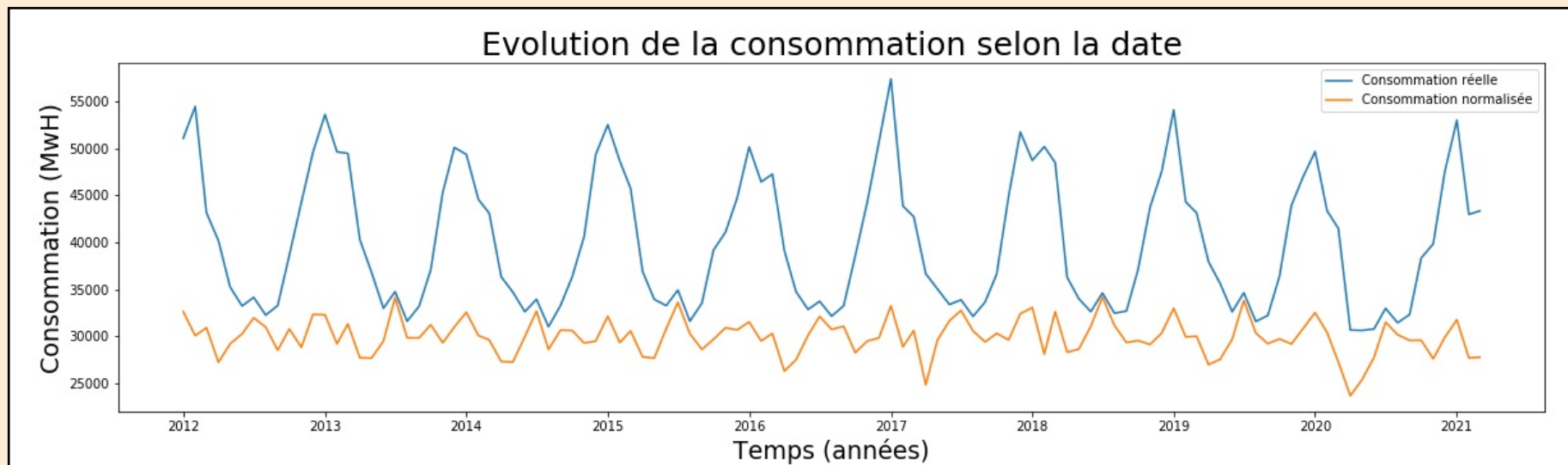
## Correction de l'effet Température

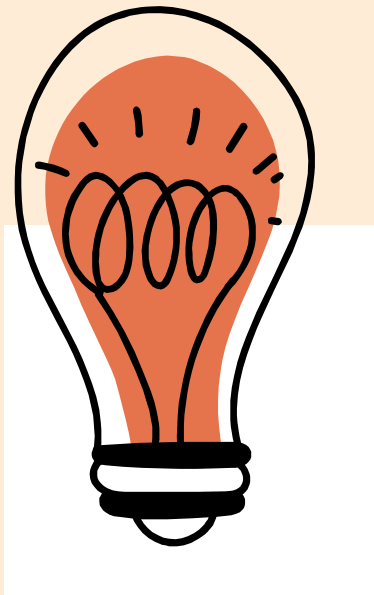


Coefficients :  $a = 51$  ;  $b = 29\,951$



# Correction effet température

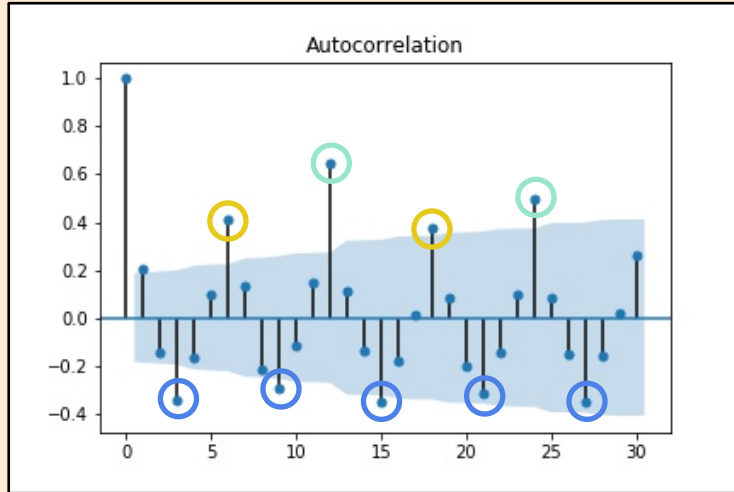




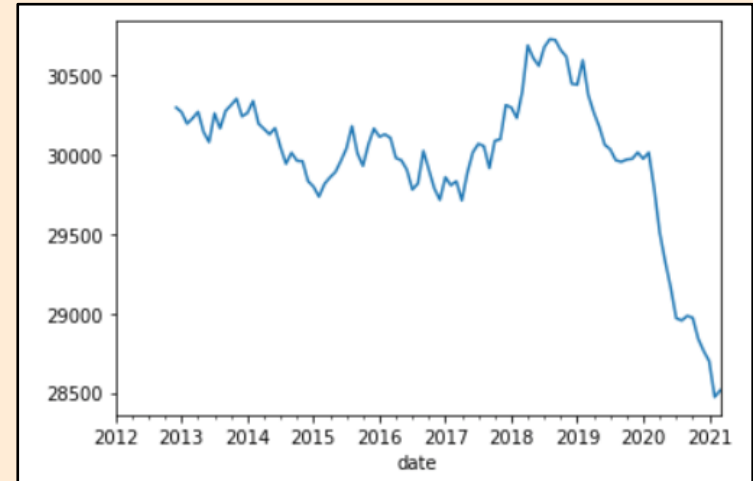
# 04

## Désaisonnalisation et stationnarisation

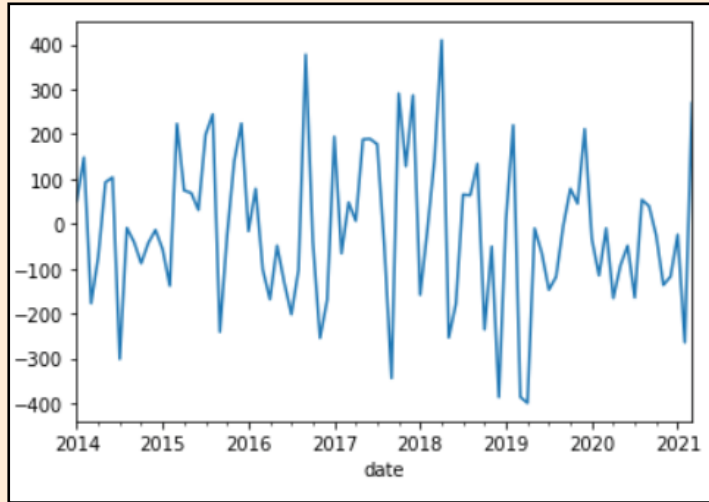
# Désaisonnalisation



12 ; 6 ; 3



# Stationnarisation

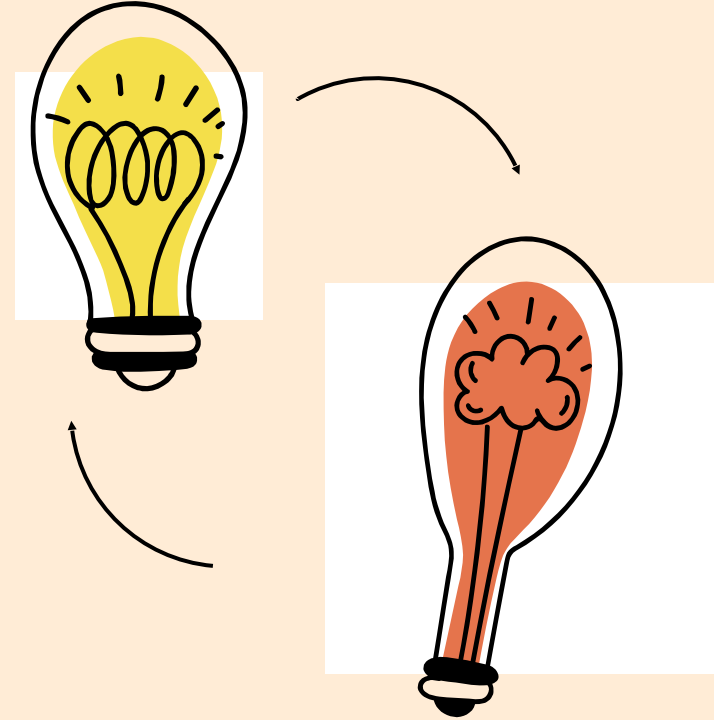


2 différenciations.

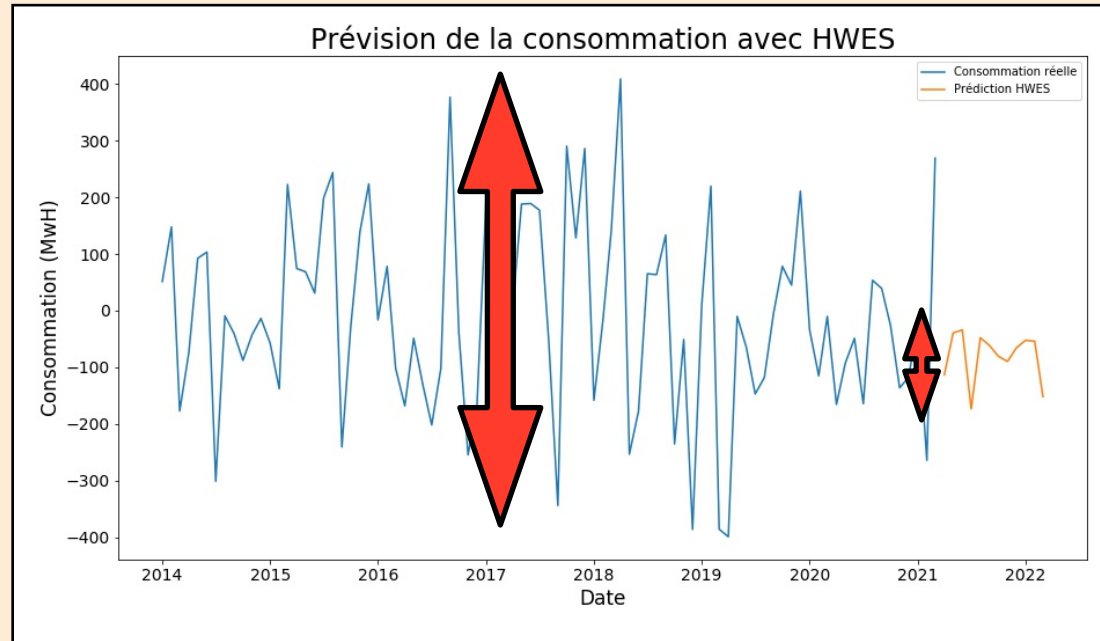
$d = 1$  et  $D = 1$

Dickey-Fuller :  $p\text{-value} < 5\%$

# 05 Prédictions

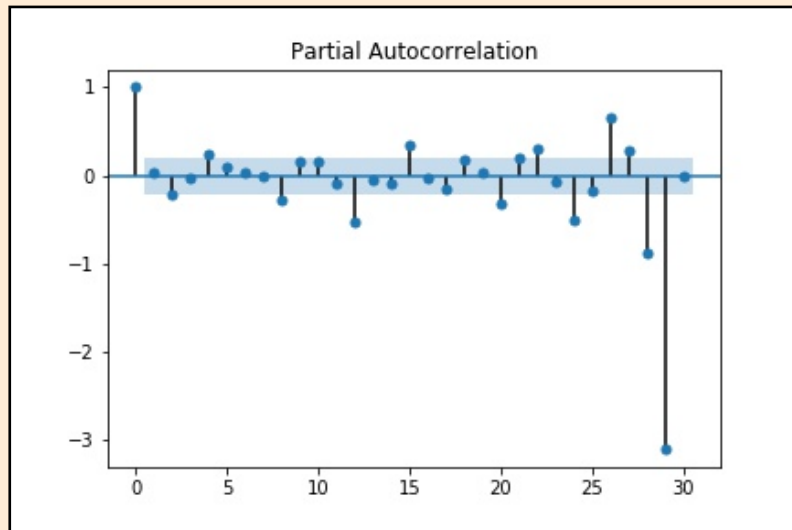


# Prédiction Holt-Winters

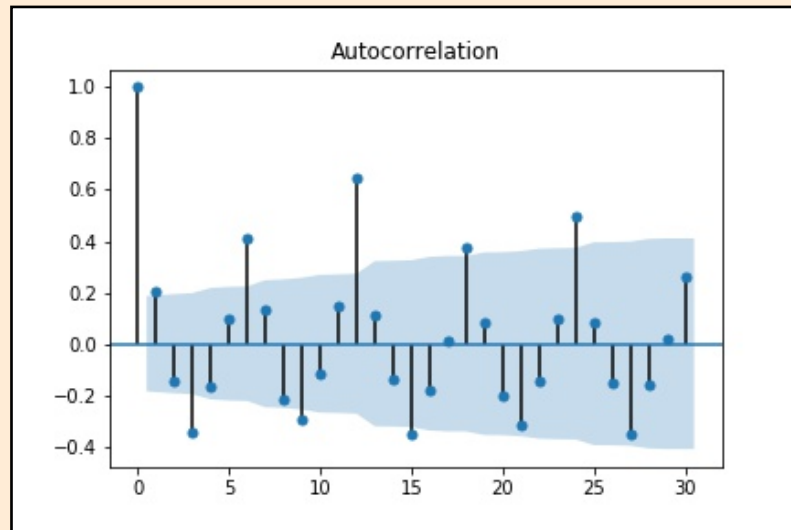




# Prédiction SARIMA

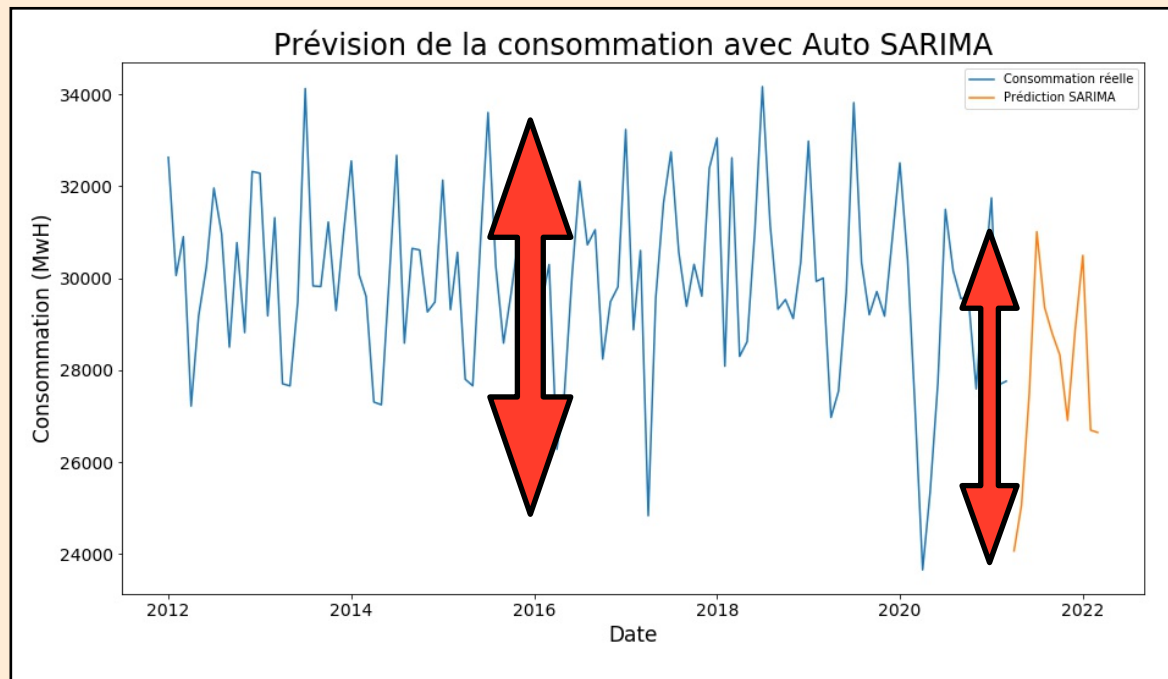


$p = 0$

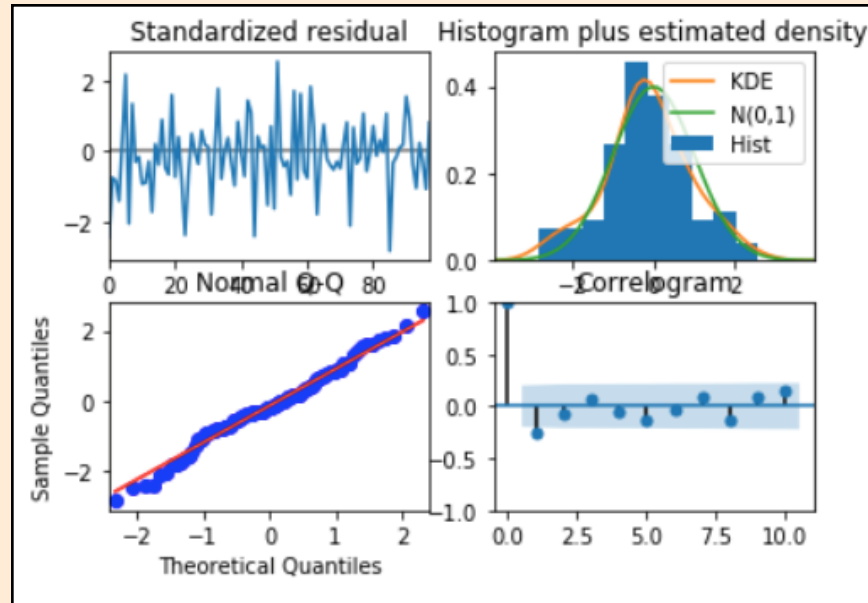


$q = 1$

# Prédiction SARIMA



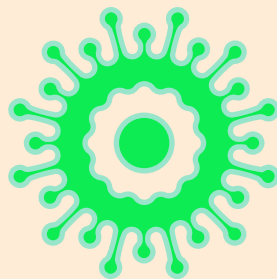
# Validation SARIMA





# 06 Conclusion

## SARIMA > Holt-Winters





# Merci!

Des questions ?

