A lot of data, but no parameters

Since I’m working at Selecta AG, I try to make a ML-model to predict how many products will be bought in the future. I have approximately 1’203’000 data points, but only 7 parameters (Machine, Year, Month, Day, Weekday, Average monthly temperature, People Fluctuation).

My questions are:

* Is there a method resp. way to extract more parameters out of the data?
* What ideas do you have for further parameters? (I’ll give some more background when we get to this question)

Answers question 1:

* Events (Festivals, Concerts)
* Location parameters
* Model per machine

Answers question 2:

* A

Other ideas:

* Look at regularization
* Make the model simpler
* Frequencies
* Cluster analysis (model for similar behaving machines)