Description State of the art within the lightweight design, optimization, and Bionics for sustainable development. A short description of the thesis work: We need to write a description about lightweight design, optimization, and Bionics( biomimicry) and to use it. Due to Coronavius the practical part will not be needed! The main goal is to find out the status of the lightweight design, optimization, and Bionics within the industrial companies. Do they use combination in their PU process? How do they use it? Do they have a dedicated process/method? If they use it, do they have to use a different manufacturing method (AM), different material… We have to start with a literature review to see the front of the research. Keywords for the search are lightweight design, optimization, and Bionics in different combinations. I have some papers with references.