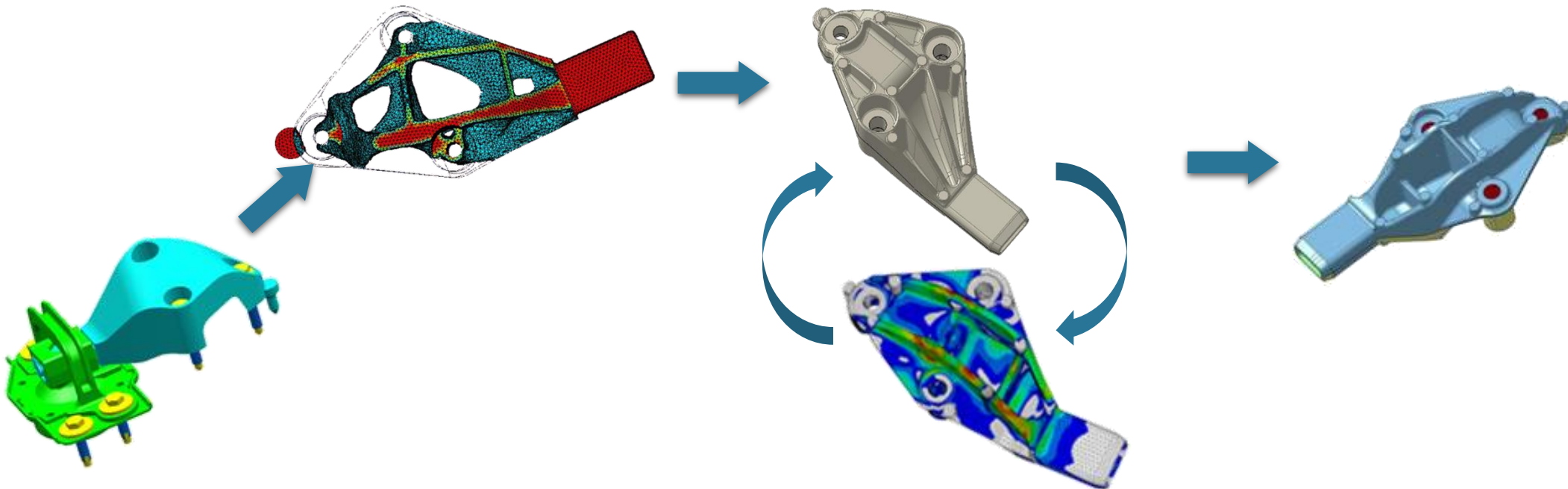


- ❁ SOKARIS Ingenierie is specialized in the design of mechanically and thermally stressed parts and assemblies.
- ❁ Optimized design consists of developing a part taking into account the dimension criteria by numerical validation.
- ❁ Some tools dedicated to optimization are used in the design process to bring out innovative concepts.



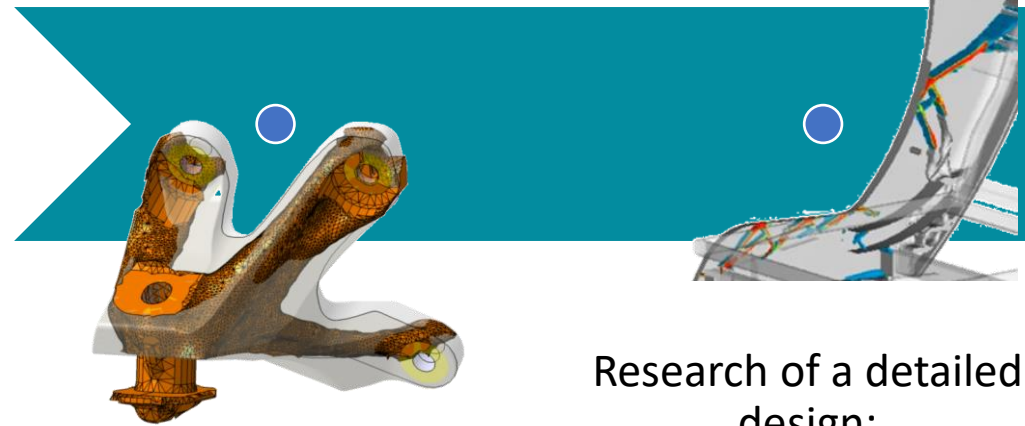
The structural analysis is a part of the design process.

Some tools for optimization can be used for several steps during the development process.

Research of a global design :

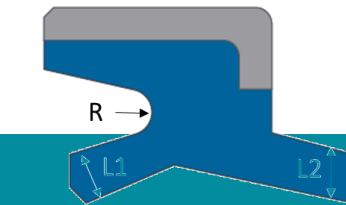
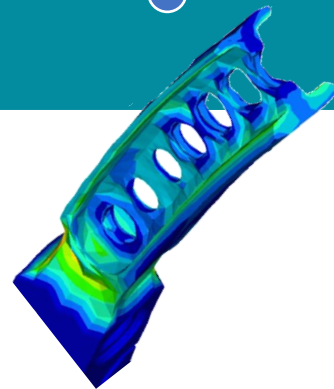
topological optimization

- Inspire
- Optistruct



Research of a detailed design:
topological optimization

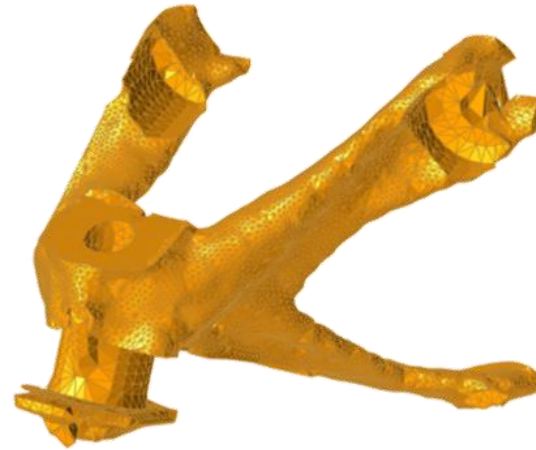
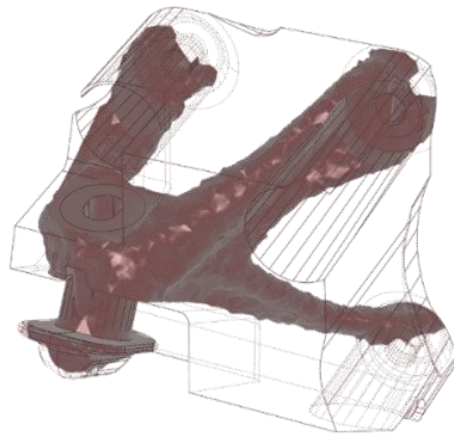
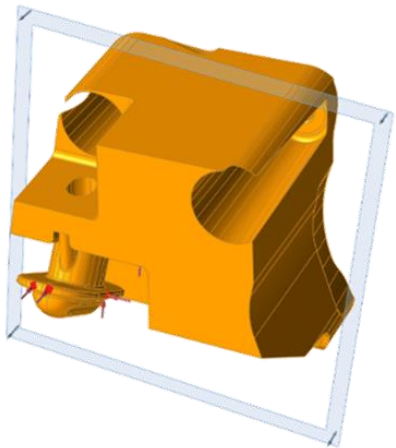
Shape optimization



Parametric optimization :

- Mesh distortion
- CAO with parameters
- EF design with parameters

- ⚙ Inspire is used by engineering companies to help designers' work.
- ⚙ The first approach is easy and we get fast results.
- ⚙ The modeling analysis is simplified.
- ⚙ The constraints of the manufacturing process can be used.



- ⚙️ Process: Additive Manufacturing - metal
- ⚙️ Material: Titanium
- ⚙️ Advantages of the methodology:
 - Disruptive design
 - Mass reduction
- ⚙️ Mechanical conditions:
 - Static criteria
 - Vibration



```

Average
-1.000E+00
-8.900E-01
-7.800E-01
-6.700E-01
-5.600E-01
-4.500E-01
-3.400E-01
-2.300E-01
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No result
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1 = 1.000E-02
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