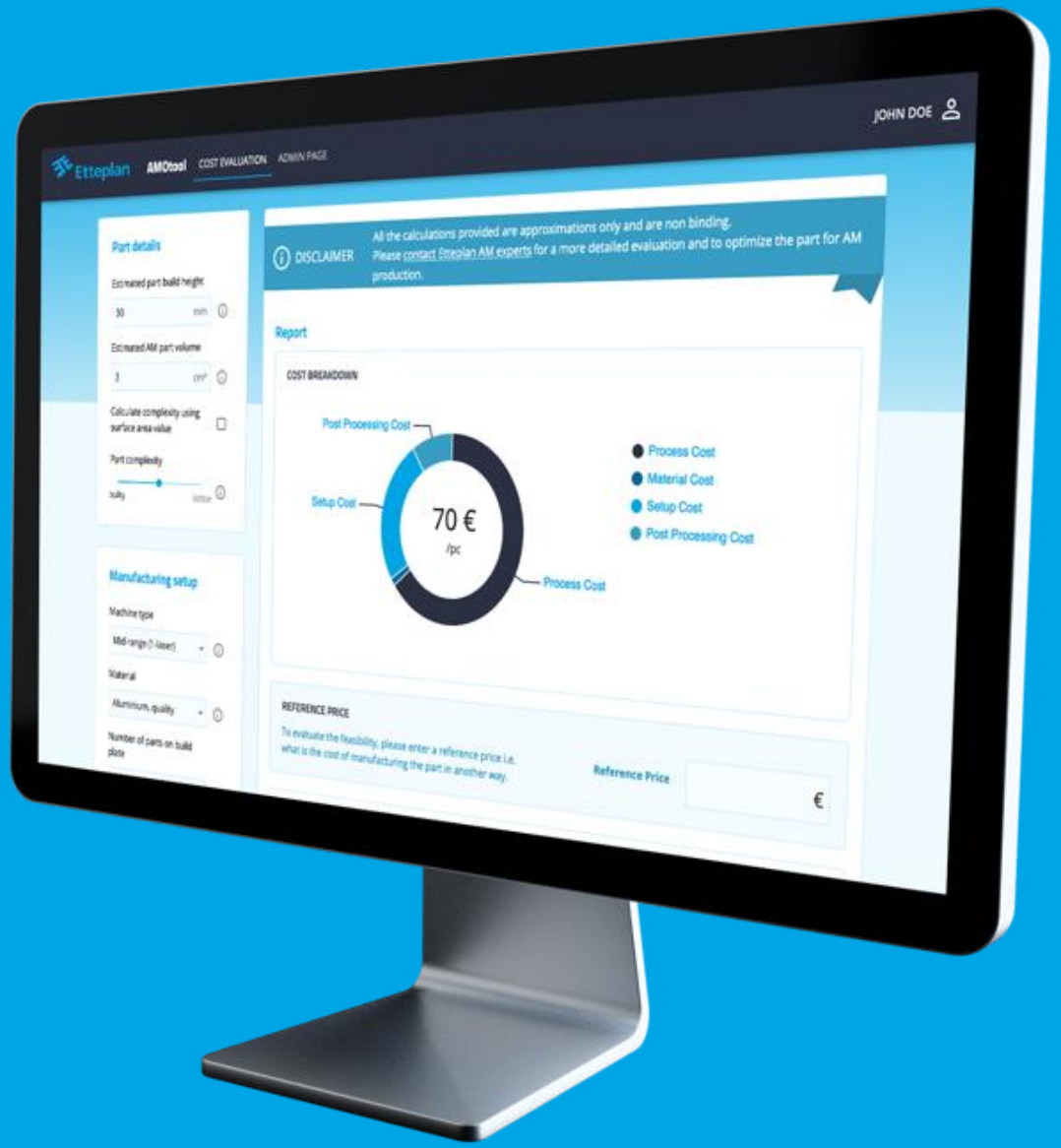
Cost evaluation with AMOTool

v1.1



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Typical use cases

Managers & engineers can create a business case together before starting an AM project

Engineers can check the suitability of a component for AM while doing traditional design projects

Engineers can justify design solutions (weight, height, nesting etc.)

Procurement is able to do price comparison between AM and traditional manufacturing e.g. in spare part cases

Procurement can evaluate received quotations based on AMOTool estimations

All you need is

A ROUGH IDEA

of how the part or product that you would like to print could look like.

The rest can be handled in

AMOTool.

Enter the properties of the part or product to AMOTool and use the cost evaluation report to build your business case.

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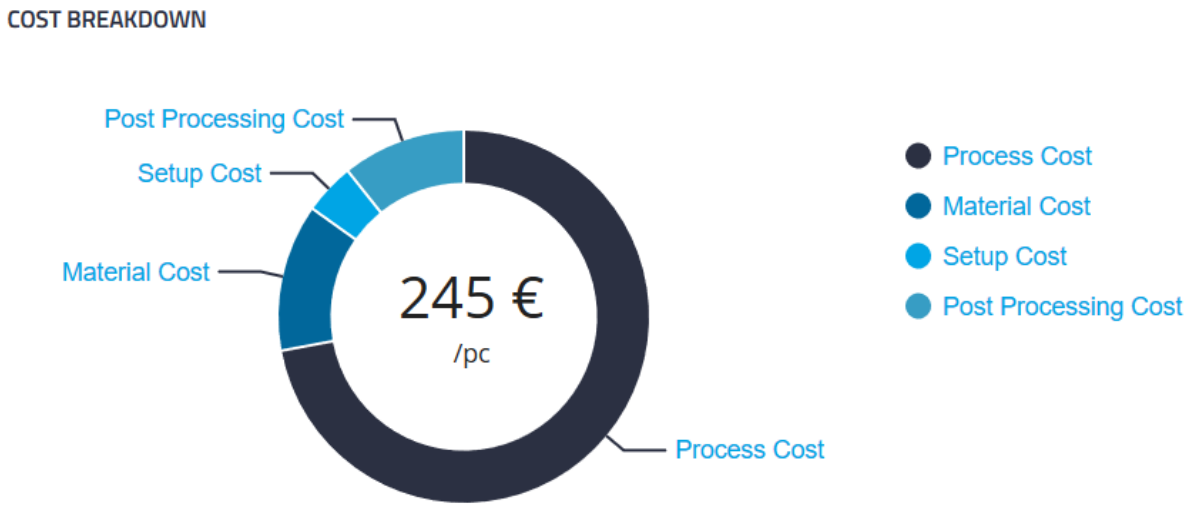
Building a business case

Cost breakdown

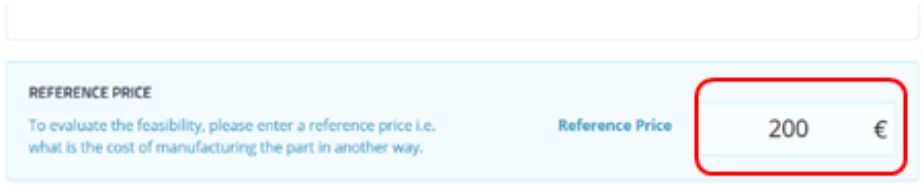
- Cost breakdown report shows the cost of the final component and the cost breakdown structure for the part
  - Process cost = Machine hour cost
  - Material cost = Raw material cost
  - Setup cost = Downtime cost
  - Post processing costs = Additional operations after the printing process
- Cost estimation is based on an assumption that production is outsourced – sales margin is included

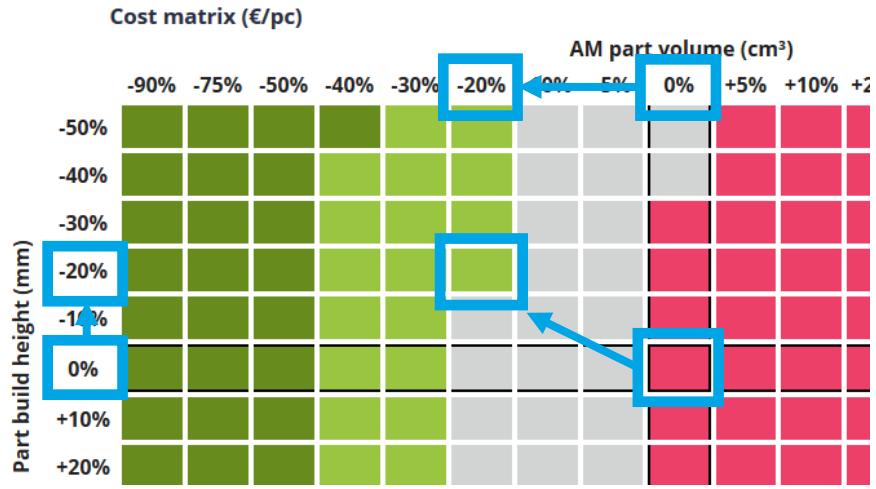


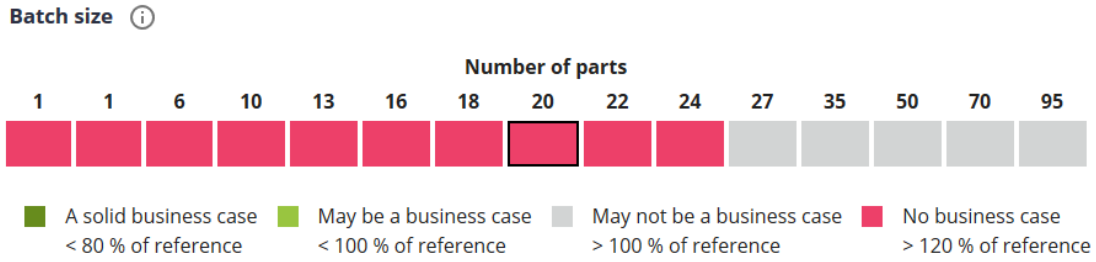
Building a business case

Business case evaluation

- Target price helps in evaluating the business case
  - Target price can be the current price of a traditionally manufactured part or the target price for a future design
- Cost matrix is used to estimate what changes should be made to the part to create a business case
  - E.g. target price will be reached if the volume and height of the component can be reduced by 20% or more
- Batch size row shows the optimal size of a build batch
  - Batch size is used to estimate when more parts should be added on the build plate







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Try it yourself!

Test how different print orientation affects the final cost

Test with different materials. You might be surprised about the cost!

Imagine what could be the size and volume of the part in an ideal world? What about the price then? Would it make sense to create that design?

Calculate potential annual savings and start a project!

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If you have any questions or development ideas, contact

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