**Vaccine pilot plant (VPP)**

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| **Vaccine pilot plant (VPP)** | | | |
| System design/system concept | Map: flowchart | Design: **✓**  Image: **✓**  Article in main menu: 🗶  file: 🗶 | |
| Mechanical design | FreeCAD design: **✓**  Image: **✓**  Article in main menu: 🗶  File: 🗶 | |
| PCS implementation | Programing design: **✓**  Image: **✓**  Article in main menu: 🗶  File: 🗶 (exist in the master thesis we don’t have access on it) | |
| Test specification | Table for test specification: 🗶  Article in main menu: 🗶 | | |
| Requirements | Materials needed: bioreactor system, homogenizer, chromatography, ultrafiltration system, ultracentrifuge, disc stack centrifuge, storage tanks and PLC system GUI | | Article in main menu: 🗶 |
| Mechanical realization | Not in progress yet: 🗶 | | |
| COST | 195 000€ | | |