**DP CRP Consortium Deliverables:**

**Draft 4/07/2017**

1. Hardware Deliverables
   1. LEM
      1. Design check and gerber validation
      2. Tendering and production follow up
      3. Reception and acceptance control
      4. HV + macor contact soldering (special tooling needed)
      5. Cleaning + baking
      6. HV tests and validation
      7. Packing and shipment to delivery sites
   2. Anodes + KEL connectors
      1. Design check and gerber validation
      2. Anode tendering and production
      3. KEL connector supply
      4. KEL connector soldering
      5. Reception and acceptance control
      6. Packing and shipment to delivery sites
   3. Invar frame
      1. Design
      2. material sourcing and procurement
      3. Production
      4. Survey and acceptance
   4. G10 frame
      1. Design
      2. material sourcing and procurement
      3. Production
      4. Survey and acceptance
      5. Decoupling system production
   5. G10 combs
      1. Design
      2. Production
   6. Extraction wire grid (incl. tooling and installation)
      1. Tooling design
      2. Material sourcing and procurement
      3. Tooling production
      4. Assembly test of grid elements
      5. Grid production
      6. Tests
   7. CRP transport box
      1. Design + safety validation
      2. Quality insurance for long distance transport and underground deployment (dust + dimensions)
      3. Production and delivery to CRP assembly sites
   8. CRP production and transport to SURF (could be different sites)
      1. Tooling and assembly components supply
      2. Assembly of the different parts on CRP frame
      3. Electrical cabling and sensor installation
      4. HV and Electrical continuity tests
      5. Planarity Survey
      6. Packing in box
      7. Transport
   9. Suspension system
      1. Mechanical design + safety validation
      2. Electrical and automatism development
      3. Procurement of mechanical and electrical part
      4. Rack cabling and testing
      5. Assembly of the suspensions system
   10. CRP instrumentation (up to and including patch panel)
       1. Level meter + cable fabrication + tests
       2. Distance meter+ cable fabrication + tests
       3. Thermometers+ cable fabrication + tests
       4. Heaters+ cable fabrication + tests
       5. Anode bridge fabrication + tests
       6. LEM HV cables
       7. Calibration boards + cables
       8. Signal cables (up to SGFT cold flanges)
       9. Patch panel design, fabrication and tests