Clean Weld
1st Semester

Step 1
Product Observation
- Impurities present
  - Mapping of "as-received" parts
    - Clean with alcohol
    - Elemental Mapping
  - Mapping of "clean" parts
    - SEM

Step 2
Designing Inspection Process
- Porosity
  - Polishing
  - Ultrasonic cleaning (once pore is found)
- SEM of pores
- Grain Structure
  - Imaging
  - Polishing
  - Etching
- Leakage
  - Radiflow
  - Pores
  - Cracks

Step 3
Design & Validate Wash Process
- Suggest Solution
- Current Wash @ Autoliv
  - Analyze wash data - pH vs time
  - Analyze chemistry of wash & rinse
  - Pattern of increasing elements/contaminants