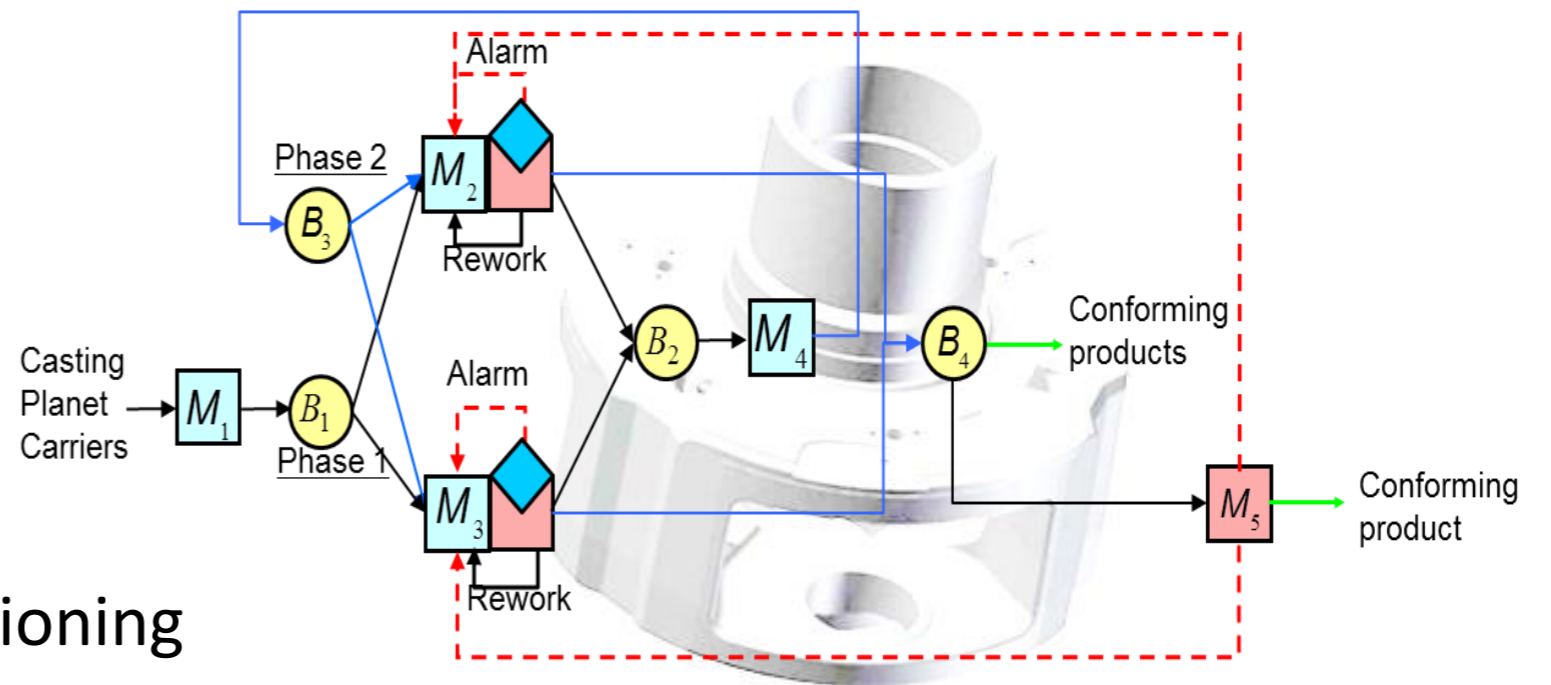


INTRODUCTION

- Production of the PLANET CARRIER for the windmill industry in a vertical lathe
- High value parts (scrap is no possible)
- End-Of-Line (EOL) control is used and the products are measured one by one during the process (manual inline control)
- Multiple workpiece clampings and repositioning



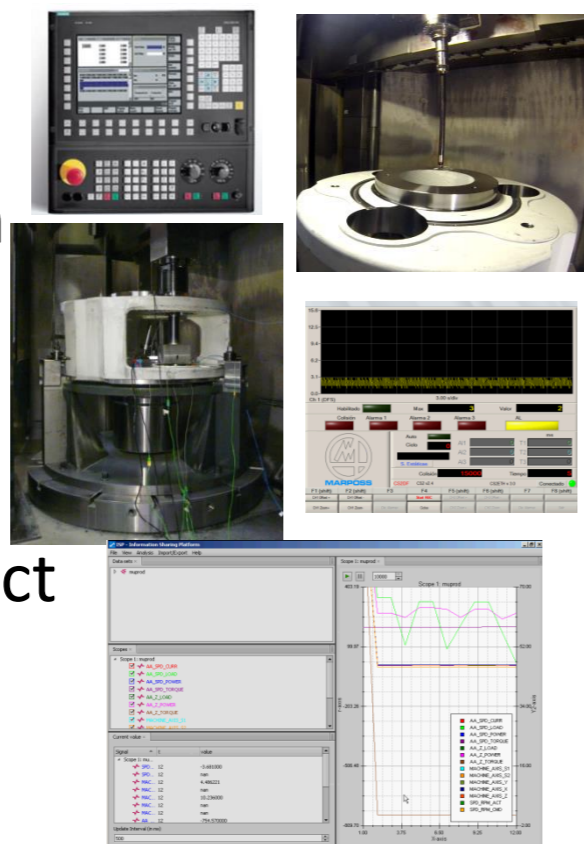
DRAWBACKS OF EOL AND MANUAL INLINE INSPECTION

- Late defect detection
- Very time consuming inspection operation
- No possible adjustment of cutting parameters
- Waste of resources by machining of defective workpieces
- Complex repair of final product

SOLUTIONS FOR 0 SCRAP:

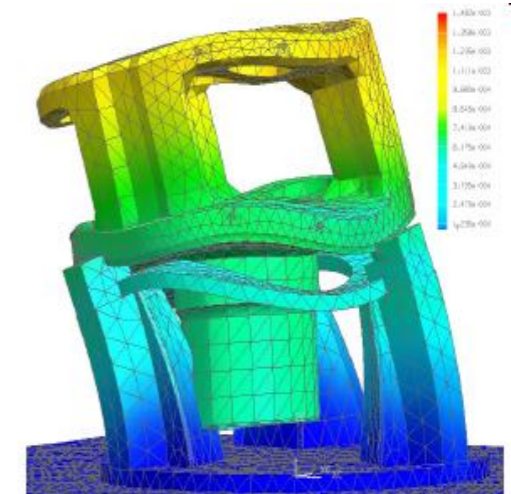
MULTI SENSOR SYSTEM

Correlation between process signals and measurements to prevent possible deviations and correct process parameters



ACTIVE FIXTURE

Better control of the workpiece positioning and adjustment



MECHANISTIC MODELS

Prediction of cutting conditions



AUTOMATED GEOMETRICAL INSPECTION

Láser based Optical Scanner solution to reduce the time consuming manual inspection assuring high precision and repeatability

