



CONCURRENT PRODUCT AND PROCESS DEVELOPMENT

Harley-Davidson recognizes the importance of early involvement of stakeholders in the development of new products and processes. This involvement includes Harley-Davidson's design engineering, manufacturing, and purchasing organization as well as Harley-Davidson's suppliers. To facilitate this process, Harley-Davidson built the Product Development Center (PDC). The PDC houses the engineering and purchasing functional areas that support the development of new production vehicles. Also present in the PDC are selected strategic OE suppliers and some of the support functions for those residents of the PDC.

Some of the benefits of early involvement of stakeholders in the product development process include:

- Developing products that meet/exceed customer expectations
- Shorter time to market for new products
- Improved reliability of products and processes
- Reduced overall product cost
- Greater accessibility to new technologies

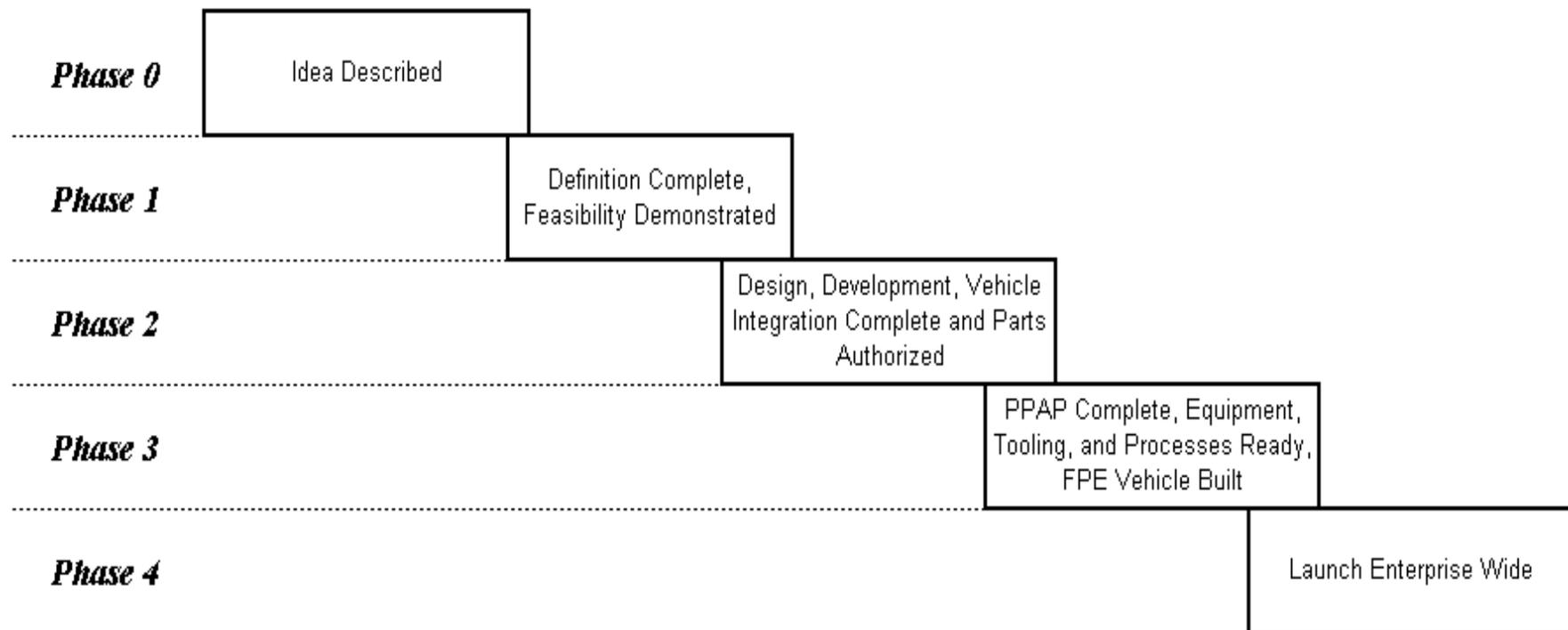
To provide for a more effective and efficient product development process, Harley-Davidson has developed the Concurrent Product and Process Delivery Methodology (CPPDM). The CPPDM is to be followed for both new motorcycles and/or powertrains, as well as for model year changes to OE systems, subsystems and components on existing motorcycles. Running engineering changes to OE motorcycles will use a different methodology that is more suitable to that particular business need.

Although P&A and General Merchandise (GM) do not follow the OE version of CPPDM, they do use a concurrent product development process that is similar in intent. The differences in the methodology are primarily due to a need for a shorter product development cycle that is driven by the shorter life cycles of P&A accessories and GM products. Suppliers providing products to P&A and GM should contact the appropriate purchasing representative for further information regarding the concurrent product develop process for P&A and GM products. A detailed process flowchart depicting the new product introduction process followed by P&A is included on the last two pages of this section.

This section of the "Doing Business With Harley-Davidson" manual will not go into the specific details of the CPPDM. However, an illustration of the basic phases of the CPPDM is included on the next page. There are also CPPDM training sessions conducted twice a year to provide suppliers and Harley-Davidson personnel the opportunity to gain a greater understanding of the methodology. More detailed documentation is also available to suppliers. Further information on CPPDM can be obtained from Harley-Davidson Development Purchasing.

Harley-Davidson Motor Company

Concurrent Product and Process Delivery Methodology



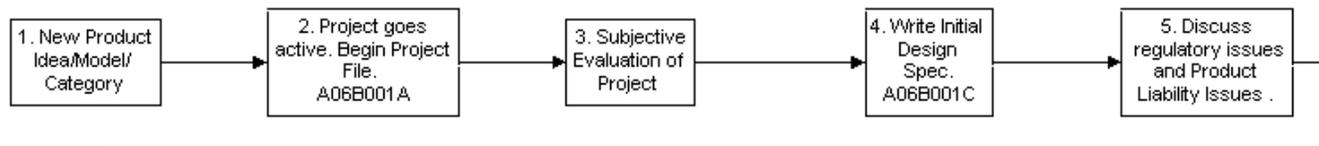
Note: Each phase and corresponding overlaps of phases vary in duration according to the complexity of the individual phase. This illustration is for conceptual purposes only.

P&A New Product Introduction

Responsibility

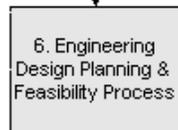
1-5. Product Management

Genuine Accessories Concept



6. Engineering

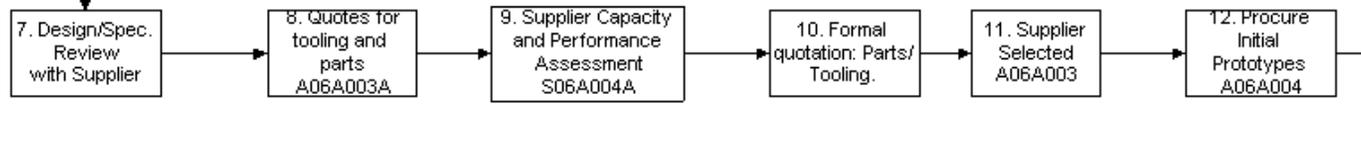
Design (Planning & Feasibility)



Project Team Assigned; Initial Project scope discussed; Spec. reviewed; In-house design vs Supplier concurrent development; Pre-select Supplier decision; Standards understood; Initial timing chart developed; development priority set; Product research; Design layout; Process & technology defined; Preliminary analysis (calculations); Technical feasibility review; Fault tree/FMEA/DFA Value analysis; Product reliability model; Initial test plan established; Formal design review; Project check point; Product spec. & timing review; Preliminary B.O.M./PN; Quotable layouts; Prototype tooling ordered; Initial packaging I.D. (Note: Not Within Scope)

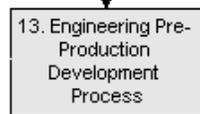
7,8,9,10,11,12
Supply Management

Development



13. Engineering

Pre-Production

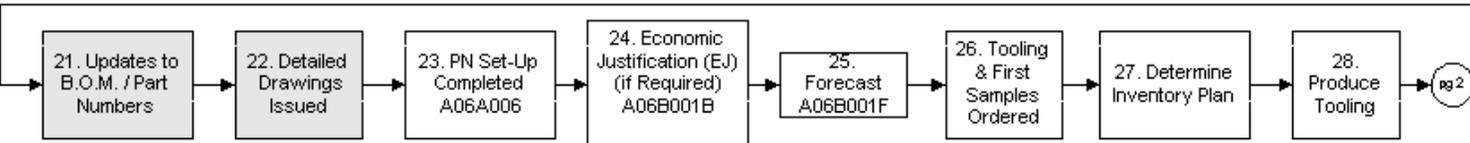


Design analysis & first detail drawings; Final test plan established; Support resources identified; Preliminary B.O.M./Service parts; Fitment; Initial prototype testing, Formal design review with team & sign-offs. (Note: Not within scope)

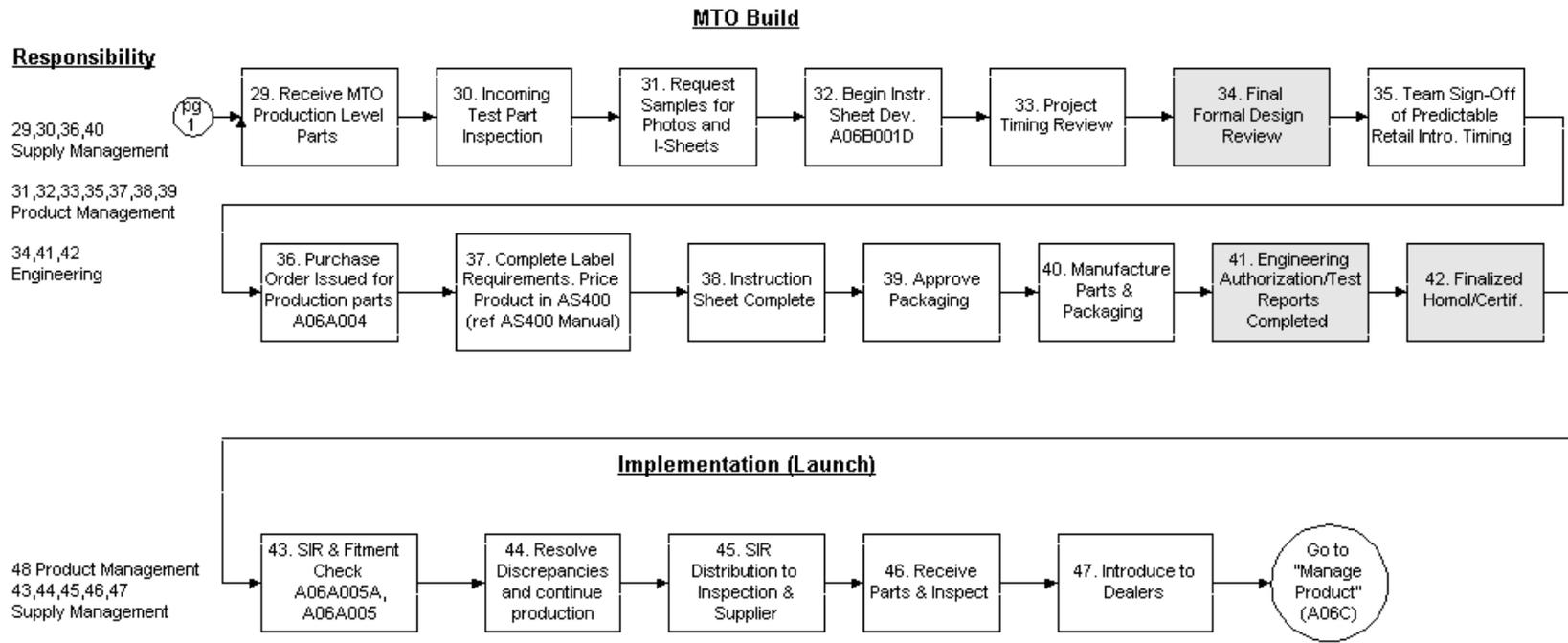
14,16,18,20
Product Management
15,17,19
Supply Management



21,22 Engineering
23,26,27,28 Supply Management
24,25 Product Management



P&A New Product Introduction (continued)



Note: All steps may not be required. The steps in this procedure may be performed other than in the order listed.

Service Parts originally ordered by Original Equipment (OE) Purchasing do not apply to this process.