SIMPLIFIED DESIGN & DEVELOPMENT FLOWCHART
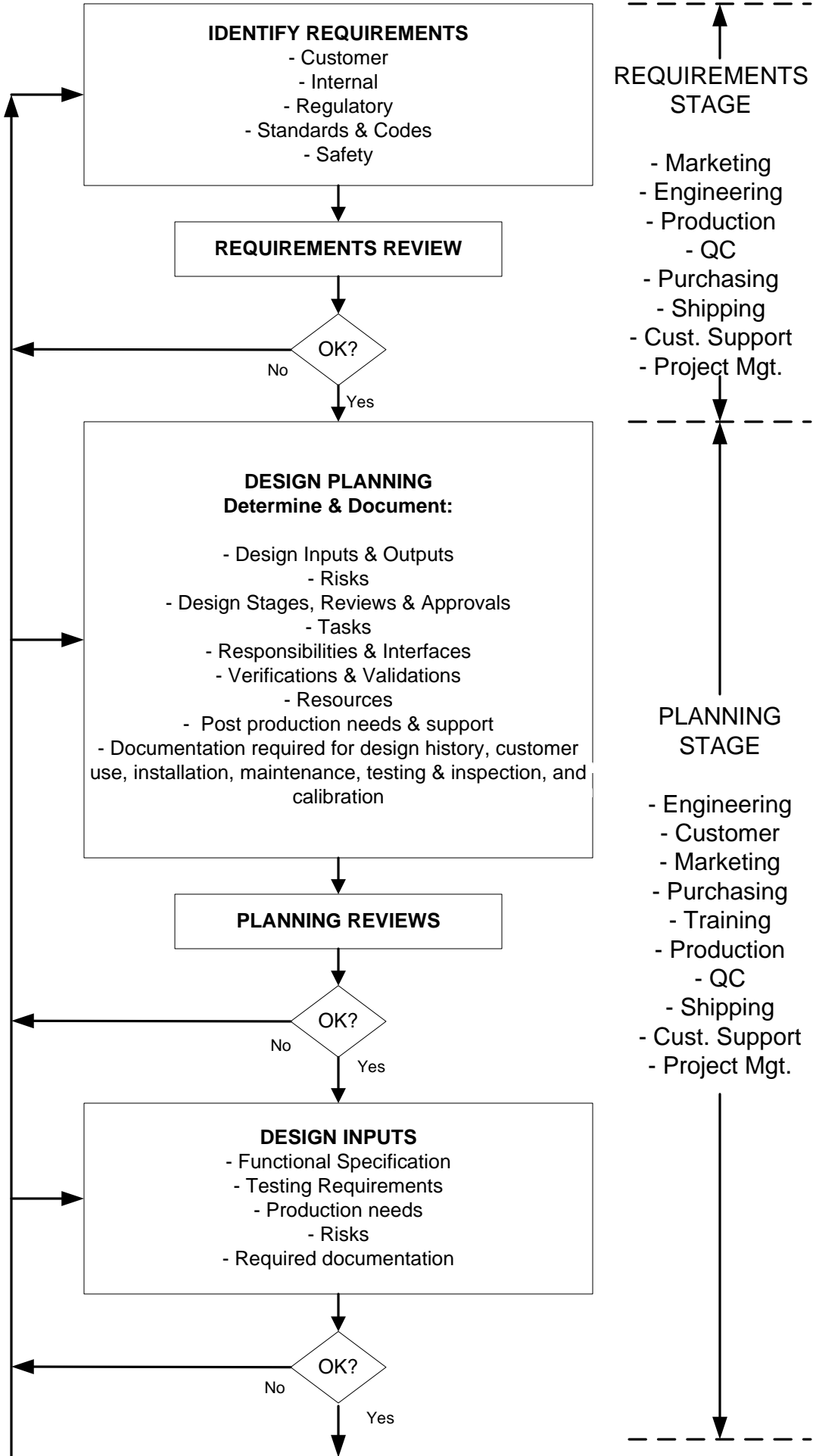K. Borge   Rev 5-28-2024

This simplified flowchart shows a typical design & development process. Your process and requirements will depend on the complexity of your products & services.

IDENTIFY REQUIREMENTS
- Customer
- Internal
- Regulatory
- Standards & Codes
- Safety

REQUIREMENTS REVIEW

OK?
No
Yes

REQUIREMENTS STAGE

- Marketing
- Engineering
- Production
- QC
- Purchasing
- Shipping
- Cust. Support
- Project Mgt.

Design Plans will evolve as the design & development effort progresses. What is learned from testing & reviews is applied to the design plan.

DESIGN PLANNING
Determine & Document:

- Design Inputs & Outputs
- Risks
- Design Stages, Reviews & Approvals
- Tasks
- Responsibilities & Interfaces
- Verifications & Validations
- Resources
- Post production needs & support
- Documentation required for design history, customer use, installation, maintenance, testing & inspection, and calibration

PLANNING REVIEWS

OK?
No
Yes

PLANNING STAGE

- Engineering
- Customer
- Marketing
- Purchasing
- Training
- Production
- QC
- Shipping
- Cust. Support
- Project Mgt.

Reviews should include same disciplines involved in original reviews.

Reviews will depend on the nature of internal and external factors.

DESIGN INPUTS
- Functional Specification
- Testing Requirements
- Production needs
- Risks
- Required documentation

OK?
No
Yes

SIMPLIFIED DESIGN & DEVELOPMENT FLOWCHART
K Borge   Rev 3-21-2024

Design Plans and sub stages may evolve as the design & development effort progresses. What is learned from testing and reviews may require changes to design inputs and planning.

DESIGN & DEVELOPMENT PROCESS
- Convert Design Inputs into Design Outputs
- Testing & Prototyping
- Design Reviews
- Update Design Plans as needed

DESIGN VERIFICATION & VALIDATION
- Verifications to confirm Design Outputs match Design Inputs
- Validation to confirm product meets intended use

OK? — No / Yes

DESIGN OUTPUTS
- Specifications for manufacturing & servicing
- Testing requirements, methods, & acceptance criteria
- Process monitoring requirements
- Safety requirements
- Instructions for production, maintenance & operation
- New training resources needed

OUTPUT REVIEW

OK? — No / Yes

RELEASE TO PRODUCTION & SERVICE
- Authorizations
- Resources allocated
- Planned documentation sent to production, QC, customers, & suppliers

OK? — No / Yes

DESIGN CHANGES / UPDATES
- Reviews
- Forward to Requirements & Planning

DESIGN & DEVELOPMENT STAGE

- Engineering
- Customer
- Production
- QC
- Training
- Purchasing
- Marketing
- Shipping
- Cust. Support
- Project Mgt.

MAINTENANCE STAGE
- Customers
- Cust. Support

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