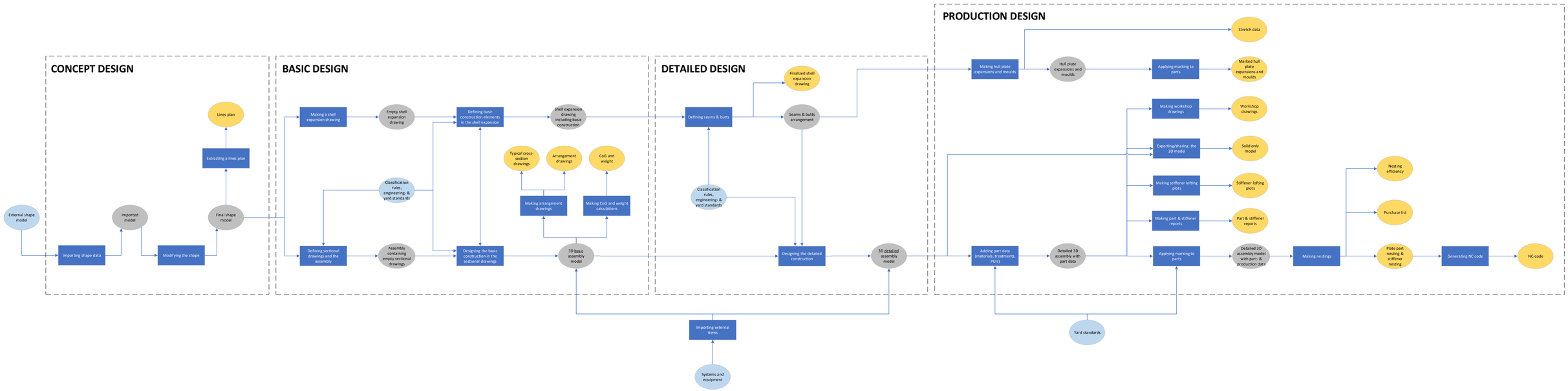
Engineering process diagram



1. Concept design
shape definition, fairing, linesplan

2. Basic design
shell expansion, sectional drawings, arrangement drawings, CoG and weight

3. Detailed design
parts, stiffeners, seams & butts

4. Production design
marking, plate expansions, workshop drawings, nesting

5. NC
nesting, cutting code

Legenda

Process step
External input
Intermediate input / output
Deliverable

Here the typical steps in the engineering of a hull construction is displayed. The diagram describes - from left to right - how to design a hull construction. The starting point is a shape model, and the output is a 3D construction model with part- and production data, and typical deliverables.

The *blue rectangles* represent a process step, **an action**. The *grey* ellipses represent an **intermediate 'input / output' variable**. The *yellow* ellipses represent a deliverable, an **output variable**. The *blue* ellipses represent an **external input variable**. All these steps and variables are described in the **knowledge base**.

Note: The diagram is displayed as a sequential process schema, while in reality the engineering process is **iterative** by nature and can jump between design stages. The steps are categorized in the most logic design stage.

For example:

- The step 'making arrangement drawings' belongs most in the basic design, but could also be done in the detailed or production design.
- 'Making CoG and weight calculations' is most typical for the basic design, but can also be done in the detailed design stage.
- 'Exporting/sharing the 3D model' can be done in any stage, but is categorized in the production design stage.