The Predictive Rendering Pipeline

Capture

Modeling

Rendering

Display

Manufacture

- Exact Geometry
- Unbiased Image Synthesis Algorithms
- Controlled Viewing Environment
- Spectral Rendering
- Calibrated Display
- Psycho-physically Plausible Tone Reproduction

- Spectral Reflectance Data
- Physically Accurate BRDF/BSDF/BTF Models
- Polarimetric Reflectance Capture
- Geometry Capture
- (Bi-)Spectral BSSRDF Measurements

- Optional stage, depending on purpose
  - Tightly controlled large-scale industrial manufacture
  - Calibrated and optimised 3D print-out

Manufacture is optional, depending on purpose.