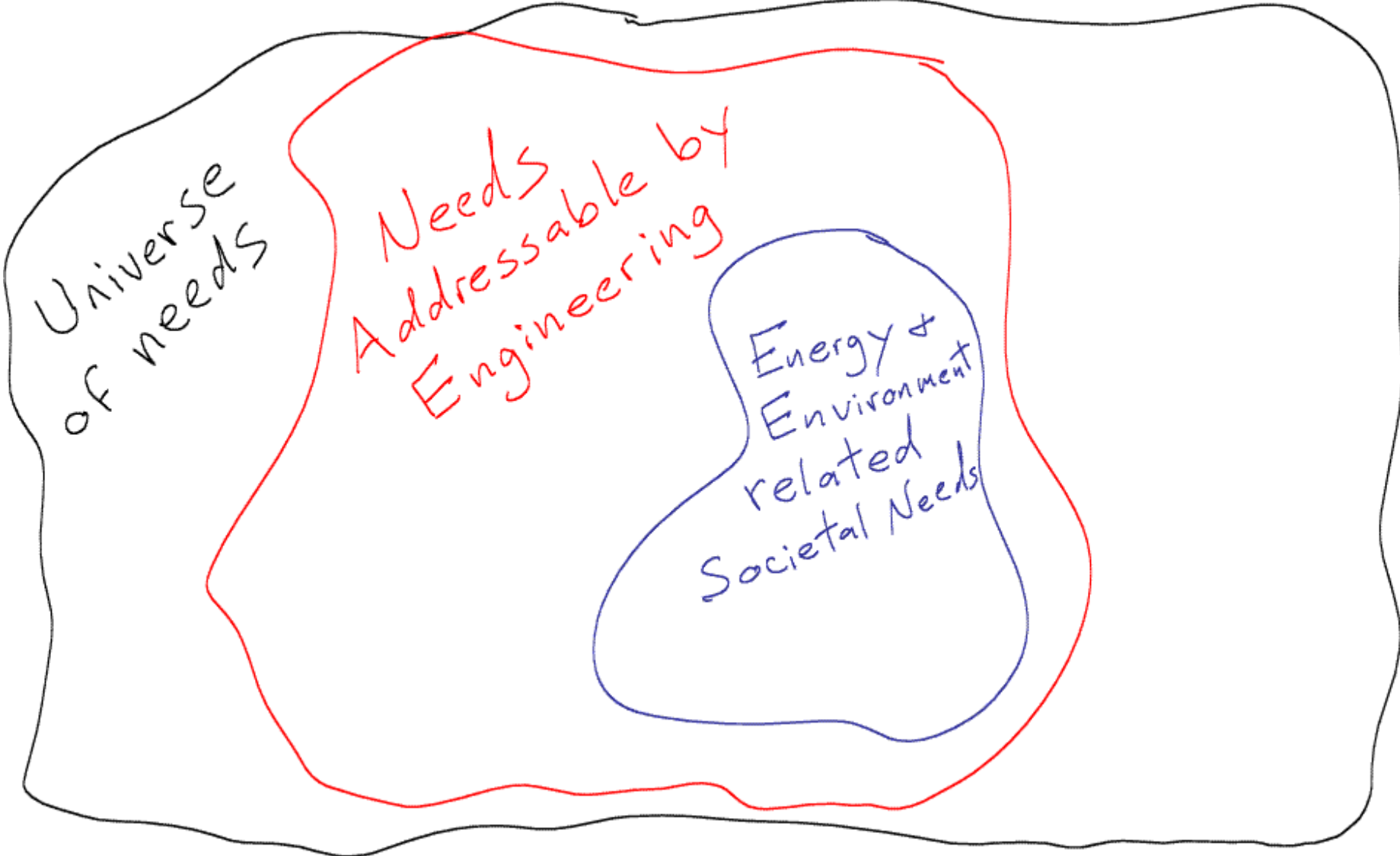


Context – do not lose sight of the need as you refine towards a final design



Energy &
Environment
related
Societal Needs

Research

- ↳ Current Situation
- ↳ Current Products (Benchmark)
- ↳ Existing Patents
- ↳ "Customer" Interviews and observations
- ↳ Team vision & creativity & calculated risk taking

Refined Need Statement

Alternative
Concepts to
address the need

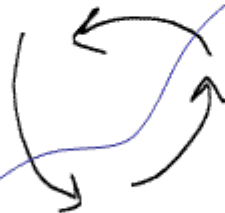
Preliminary Design



Alternative Concepts to address the need

Feasibility + Effectiveness
Filters, Decision Methods
Baseline analysis and Test Results

Preliminary Design



Detailed Analysis
360° Customer Input
DFX
FMEA
Manufacturability
Economics
Marketing



Prototype

- **Dynamic Interplay** between these.
- All designs / customer input / mfg considerations should be **focused on the final design**.
- Prototype is built to evaluate/improve the F.D., & it can be a scaled model (if appropriate) to limit risk and deal with resource limitations.
- * **Prototype must provide useful performance and "market acceptance" data** to be used in program evaluation - continue or Kill the project.

Final Design