I. Identify the Design Problem
    Clarify its essential attributes
- Volume–how much of a solution material(s) will be needed?
- Function–what does the material need to be able to do?
  - what combinations of functions could solve the design problem?
- Flex–how flexible are these various parameters?

II. Conduct a Materials Flow Analysis of the locality of the design problem
    1. Scale–what are the size of the various available waste flows?
    1. Volume–Pick wastes high in volume
    2. Convertability–Pick wastes that require low inputs to convert them to a useable form
        Hierarchy of reprocessing:
- reuse
- remanufacture
- refabrication–this is your cutoff, and may involve an LCA to determine if it is actually carrier a lighter footprint than the "standard" material utilization
- *recycling*
- *downcycling*

    3. Resource Utility–Pick wastes first that can have higher relative values when converted into a resource
    4. Resource Flexibility–Pick wastes for which there are a range of resource-forms they can be converted into
    5. Damage Mitigation– Pick Active Wastes before Passive Wastes, or wastes that produce active harm as a waste over wastes that are fairly inert

This process should provide you with a hierarchy of materials to explore as possible raw materials for a potential solution.

IV. Function Exploration
    Start at the top of your list, and explore the material's function capabilities.
    put this to the refab crew–what do they see as the exploration process?
    as functions are discovered for existing waste stream materials, they are added to the **database**:
- function they fill
- process for converting from waste to resource–cutting, folding, moulding, etc
- profile of costs/necessary resources
- flex to their functional capabilities

At this point, the whole thing becomes **iterative**, cycling back and forth between the combinations of functions that can fill the design problem, and the functions discovered about the materials through exploration... until a series of possible **design strategies** emerge.