

**Definition.** Given a DPI  $\langle \mathbf{F}, \mathbf{R}, \mathbf{I}, \text{prov}, \text{req} \rangle$ , define the map  $h : \mathbf{F} \rightarrow \mathcal{AR}$  that associates to each functionality  $f$  the objective function of ??, which is the set of minimal resources necessary to realize  $f$ :

$$\begin{aligned} h : \mathbf{F} &\rightarrow \mathcal{AR}, \\ f &\mapsto \underset{\leq_{\mathbf{R}}}{\text{Min}}\{\text{req}(i) \mid (i \in \mathbf{I}) \wedge (f \leq \text{prov}(i))\}. \end{aligned}$$

If a certain functionality  $f$  is infeasible, then  $h(f) = \emptyset$ .