$$\mathtt{L} \xrightarrow[\text{cobasis}]{\mathtt{l}} \mathbb{R}^d$$

$$\mathtt{L} \supset V \xrightarrow{\mathtt{l}} V \subseteq \mathbb{R}^d$$

$$\mathbb{R}^d \xrightarrow[\text{basis}]{\mathtt{l}} \mathtt{L}$$

$$\mathbb{R}^d \supset W \xrightarrow{\mathtt{l}} V \subset \mathtt{L}$$

$$\begin{tikzcd}
\mathbb{R}^d \supset U \arrow[r, "\mathtt{l}"] \arrow[rr, bend left, "\mathtt{u} = \mathtt{l}\mathtt{u}"] & \underset{\sim}{\mathtt{L}} \arrow[r, "\mathtt{u}"] & V \subset \mathtt{h} \in \mathbb{R}^{\triangle}_{\infty} \text{ manifold}
\end{tikzcd}$$