

$$\begin{array}{ccccccc}
(LRZ, Y) & \xrightarrow{(Rg)_*} & (LRZ, Z) & \xrightarrow{-\delta_!} & \mathbb{E}(LRZ, X) & \xrightarrow{f_*} & \mathbb{E}(LRZ, Y) \\
\downarrow j^* \circ \Phi_{RZ, Y} & & \downarrow (Lj)^* & & \downarrow (Lj)^* & & \\
(E, RX) & \xrightarrow{-(Rf)_*} & (E, RY) & \xrightarrow{-\Phi_{E, Z} \circ (Rg)_*} & (LE, Z) & \xrightarrow{-\delta_!} & \mathbb{E}(LE, X) \\
\downarrow i^* & & \downarrow i^* & & \downarrow i^* \circ \Phi_{E, Z} & & \\
(RX, RX) & \xrightarrow{(Rf)_*} & (RX, RY) & \xrightarrow{(Rg)_*} & (RX, RZ) & & \\
\downarrow (\psi(\delta))^! & & \downarrow (\psi(\delta))^! & & \downarrow Rf & & \\
\mathbb{E}(RZ, RX) & \xrightarrow{-(Rf)_*} & \mathbb{E}(RZ, RY) & & 0 & & \\
\downarrow j^* & & & & \downarrow (\psi(\delta))^! & & \\
\mathbb{E}(E, RX) & & & & 0 & & \\
& & 0 & \xrightarrow{-(Rf)_*} & 0 & & \\
& & \downarrow j^* & & & & \\
& & 0 & & & &
\end{array}$$

Additional horizontal maps in the diagram:

- $0 \xrightarrow{f_*} 0$ (top right)
- $0 \xrightarrow{-(\delta_!)} 0$ (middle right)
- $0 \xrightarrow{(Rg)_*} 0$ (middle right)