

$$\begin{array}{ccccc}
\Omega(A) & \xhookrightarrow{\iota_A} & P_A & \xrightarrow{\pi_A} & \twoheadrightarrow A \\
\parallel & & \downarrow i_{\phi_1} & & \downarrow \phi_1 \\
\Omega(A) & \xhookrightarrow{\kappa_{\Omega(A)}} & I_{\Omega(A)} & \xrightarrow{\rho_{\Omega(A)}} & \Sigma \circ \Omega(A) \\
\parallel & & \downarrow i_{\phi_2} & & \downarrow \phi_2 \\
\Omega(A) & \xhookrightarrow{\iota_A} & P_A & \xrightarrow{\pi_A} & \twoheadrightarrow A
\end{array}$$