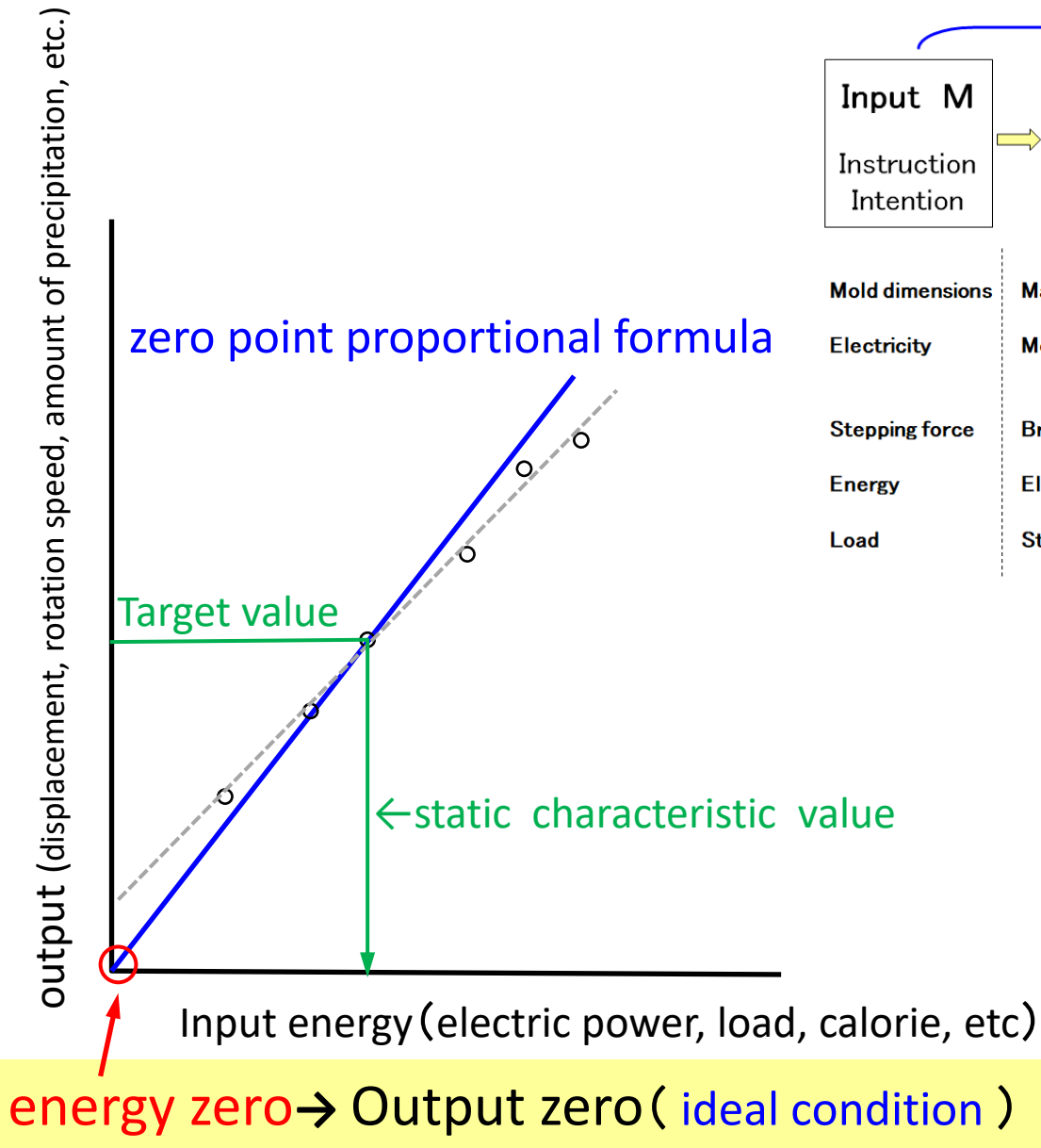
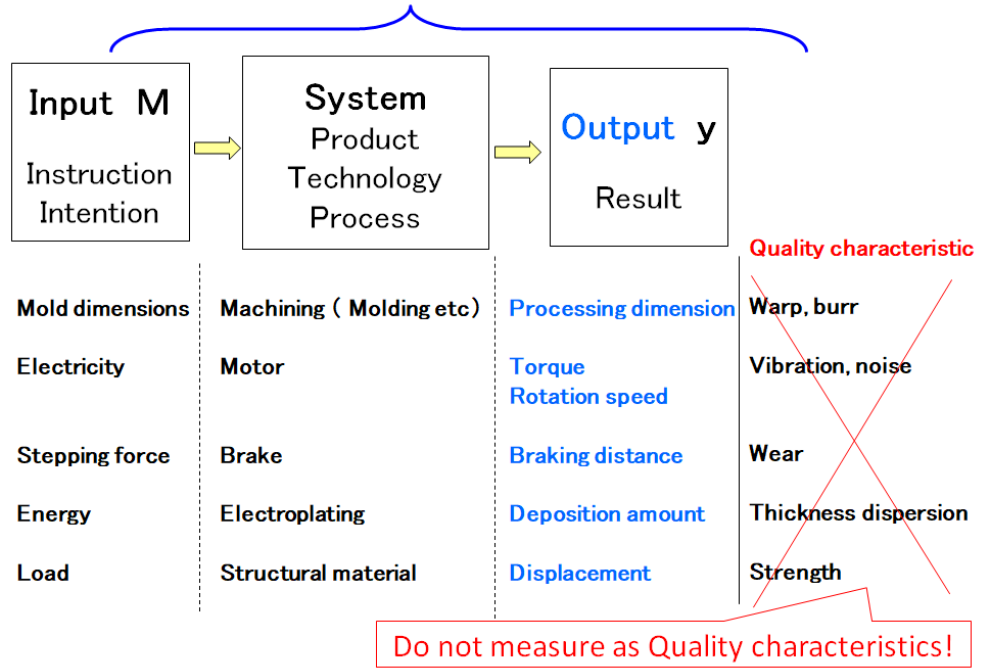


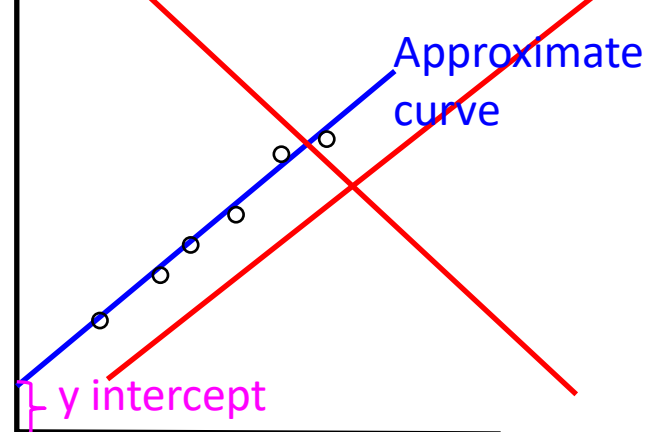
In Quality Engineering (QE), **dynamic characteristics** are usually used for evaluation.



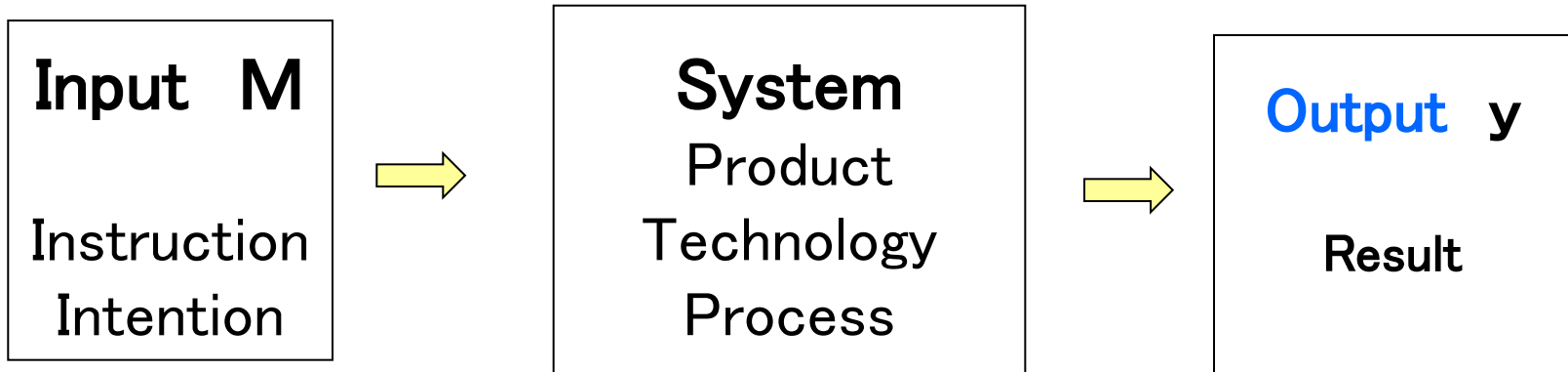
Setting the **function of a system** is important



In the case of academic research



# Evaluate by SN ratio



$$\text{SN ratio} = \frac{\text{Energy converted to the intended function}}{\text{Energy converted to something other than its intended function}}$$

$$= \frac{\text{Magnitude of signal effect}}{\text{Magnitude of effect of error factor (Noise)}}$$

**Energy loss** (indicated by a red box and arrow pointing to the denominator of the first equation)

**Energy loss** (indicated by a red box and arrow pointing to the denominator of the second equation)

