Timing of VSync

e.g.
60 Hz Display → 60 fps
→ 60 signals per second
→ ~16 ms interval between signals
→ ~16 ms to draw per frame

Graphics Card

VSync signal
(Vertical Synchronization)

Display Subsystem
GPU (graphics card)
display driver
physical display (HWS)
...

Choreographer

↳ Schedule tasks
for next frame

↳ update animations
process input events
trigger UI redraws
...

Apps :
→ receive draw callbacks
→ update UI buffer

Surface Flinger :
→ receive UI buffers
→ compose UI buffers
to final image
→ hand over to HAL.

HAL (Hardware Abstraction Layer) :
→ send composed image
to physical display hardware