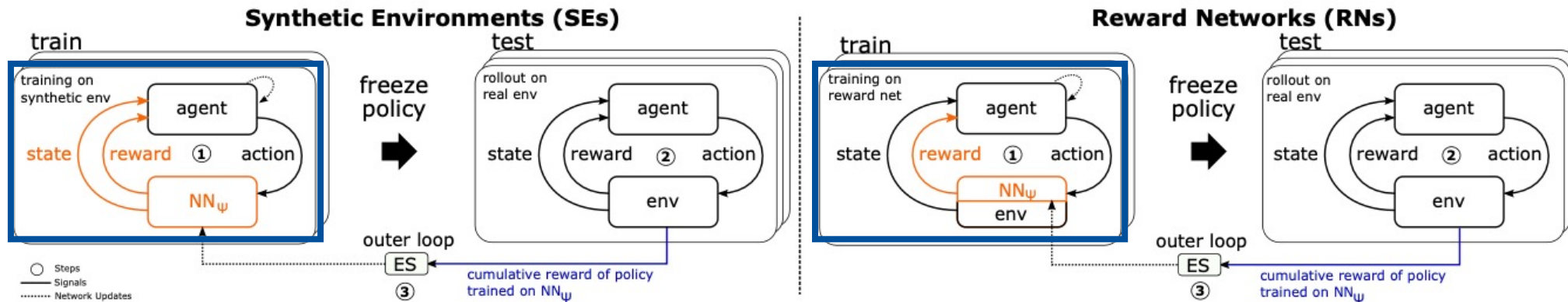


# Warm-started Environment Learning

- Work by Ferreira et al. (2022) is computationally expensive due to **RL training loop**:



- Do we really need full agent trainings early on?
- What if we just do exploration to **warm-start ES**?

# Two phases of Environment Learning

## 1) Exploration

- Use state-novelty based approaches such as *RND*, *NovelD*, *E3B* on synthetic env
- Track exploration trajectories and apply same action sequence to real env
- Fitness  $\sim$  accuracy of state and reward predictions

## 2) Refinement

- Final exploration population is initial population of the original environment learning process
- Hopefully: Faster convergence