

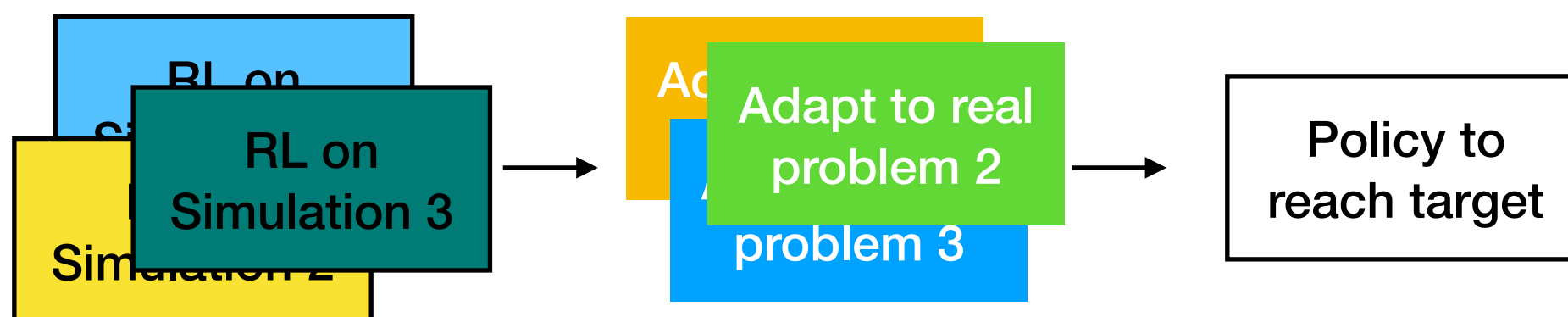
Motivation

- How we can use experience from some source domain to get into a position, where we can solve more efficiently or effectively new downstream tasks?
- Transfer learning: Using experience from one set of tasks for faster learning and better performance on a new task

Transfer learning



Domain randomisation/multi task learning



Can we do this smarter? → **Meta-learning**

What is meta-RL?

- Can the knowledge acquired from learning many different tasks be leveraged to expedite and improve the learning process for new tasks?
- Meta-learning = learn to learn
- Comes in many flavours - we focus on gradient based meta-learning
- Closely related to multi task learning- in multi-task is the task provided explicitly
- Meta-learning distinguishes itself by its ability to infer tasks and its explicit focus on rapidly adapting to new task