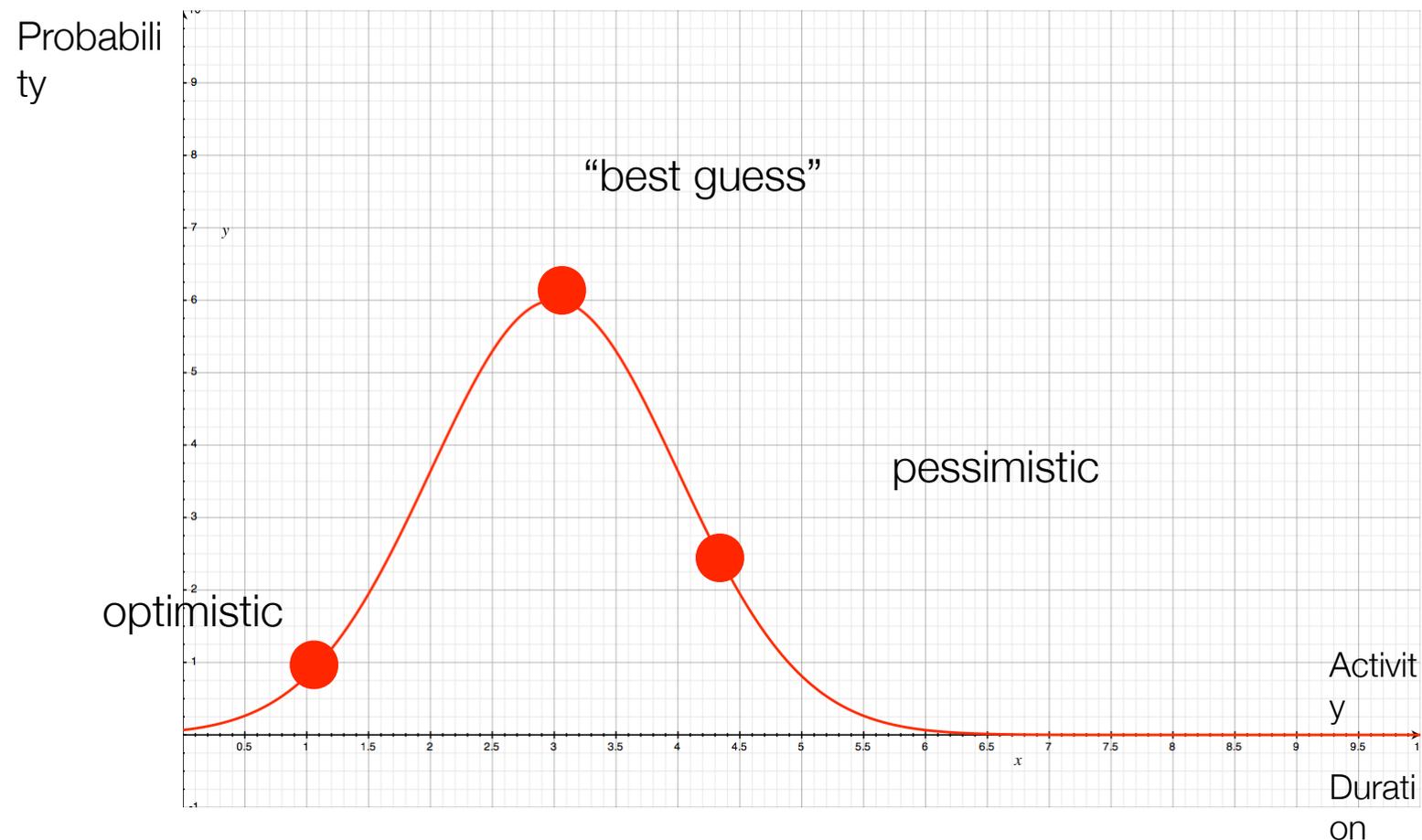


Uncertainty in Planning

Uncertainty in planning

- Planning has a certain degree of uncertainty
- (In software and not only) we are over-optimistic
- “best guess” might also be a problem



Uncertainty in planning

- Three practices (not necessarily good) to account for uncertainty
 - **Implicit padding:** each activity includes some contingency time
 - **Explicit padding:** the contingency time is explicitly modeled as an activity
 - **React and re-plan:** when a delay occurs, you re-plan and re-define a new realistic schedule
- Some suggestions:
 - Always evaluate the cost of delays
 - Choose a strategy and make it clear (with yourself and with your stakeholders, if possible)

Implicit Padding

- Each activity includes some extra duration/effort to take into account delays
- Estimations become inaccurate and difficult to control
- Always being pessimistic (and always delivering earlier, according to a wrong pessimistic plan) is not necessarily good... the plan is still inaccurate
- Interaction with other projects might still be a problem (you deliver earlier and the next project needs to re-allocate resources in order to start an activity earlier)

Explicit Padding

- The plan includes some extra activities or slack to take into account delays in finishing activities
- Contingency is not explicit in the plan. Data is accurate; no problems in budgeting/monitoring/...
- Might be difficult to have it accepted... the customer might think of padding as useless

React and Re-plan

- When a delay occurs, it is dealt with and specific actions are decided. The actions are incorporated into the plan, which is revised
- **Flexible:** takes into account different strategies for dealing with contingencies (e.g. removing dependencies, adding resources)
- This is not a **planning practice**. It is a monitoring and executing practice.
- **The plan** does not show possible alternative courses of actions to the occurrence of a risk/contingency