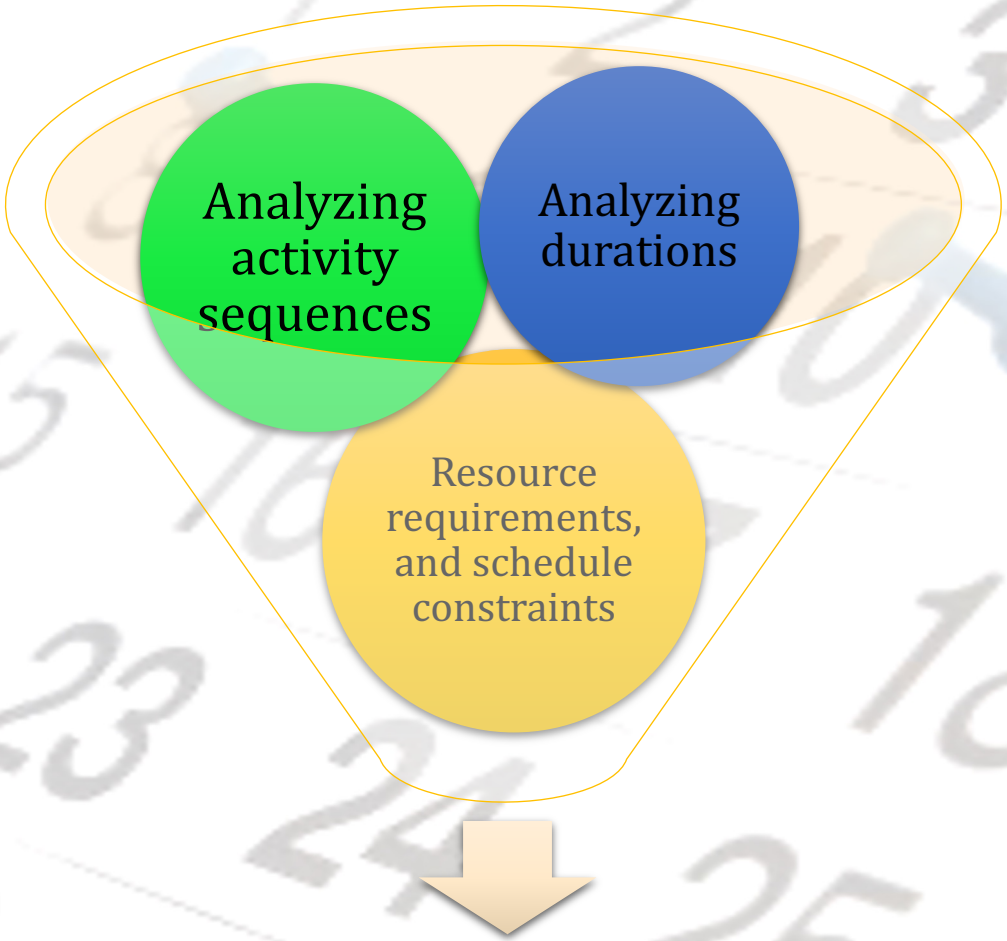
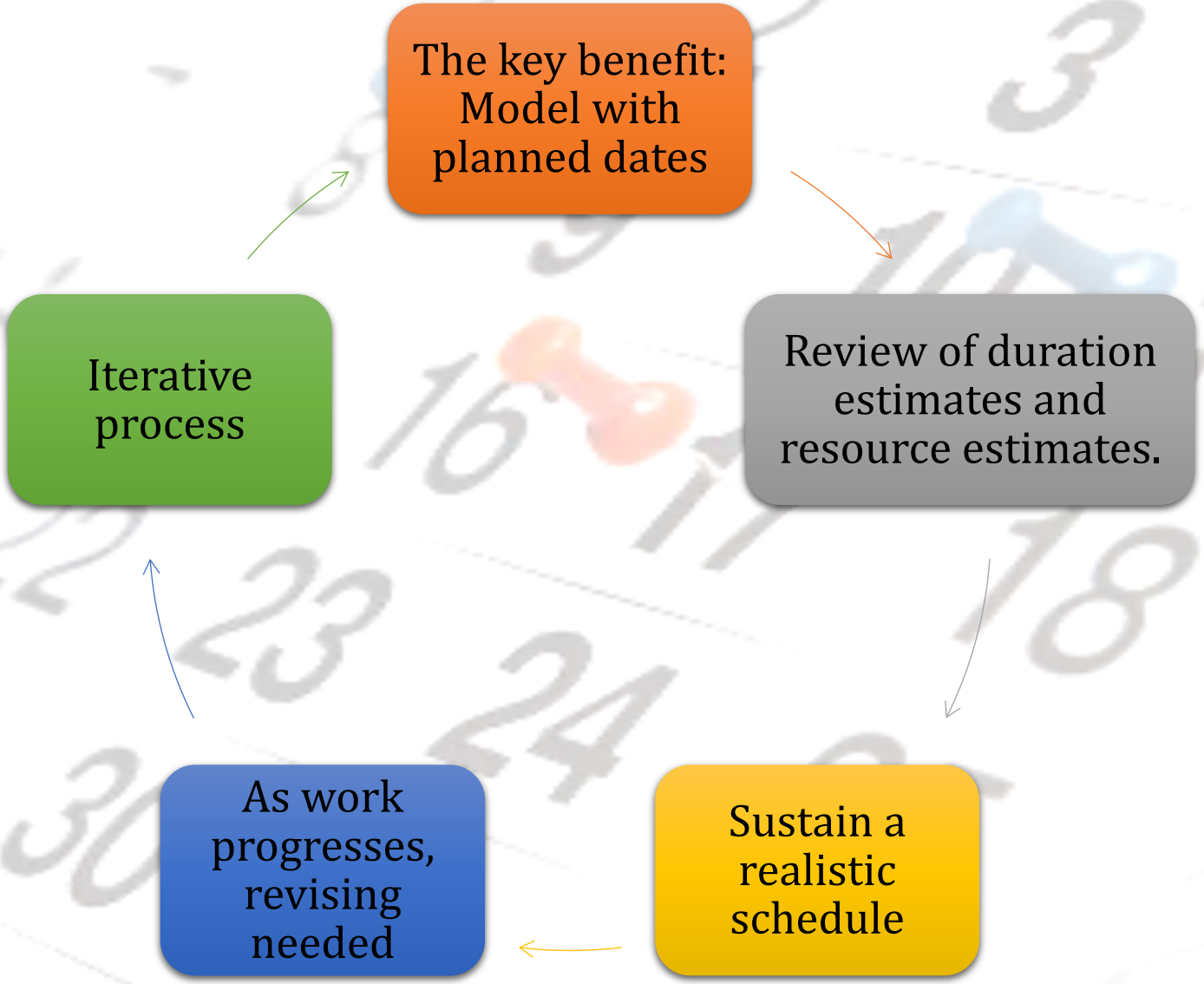
Develop Schedule



Develop Schedule



Inputs

1. Schedule management plan
2. Activity list
3. Activity attributes
4. Project schedule network diagrams
5. Activity resource requirements
6. Resource calendars
7. Activity duration estimates
8. Project scope statement
9. Risk register
10. Project staff assignments
11. Resource breakdown structure
12. Enterprise environmental factors
13. Organizational process assets

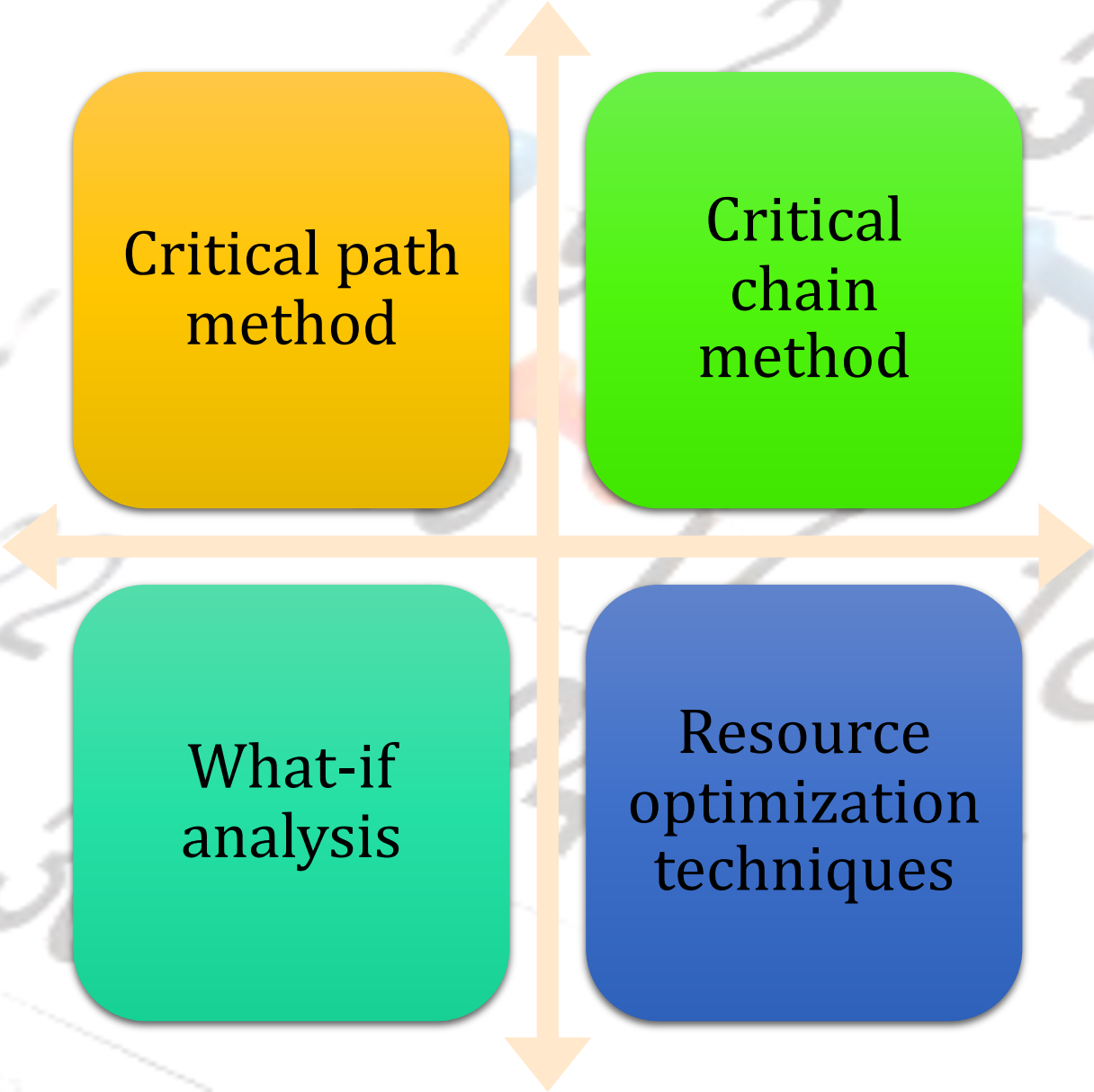
Tools & Techniques

1. Schedule network analysis
2. Critical path method
3. Critical chain method
4. Resource optimization techniques
5. Modeling techniques
6. Leads and lags
7. Schedule compression
8. Scheduling tool

Outputs

1. Schedule baseline
2. Project schedule
3. Schedule data
4. Project calendars
5. Project management plan updates
6. Project documents updates

Tools: Schedule network Analysis



Tools: Critical Path Method

Estimate the minimum project duration

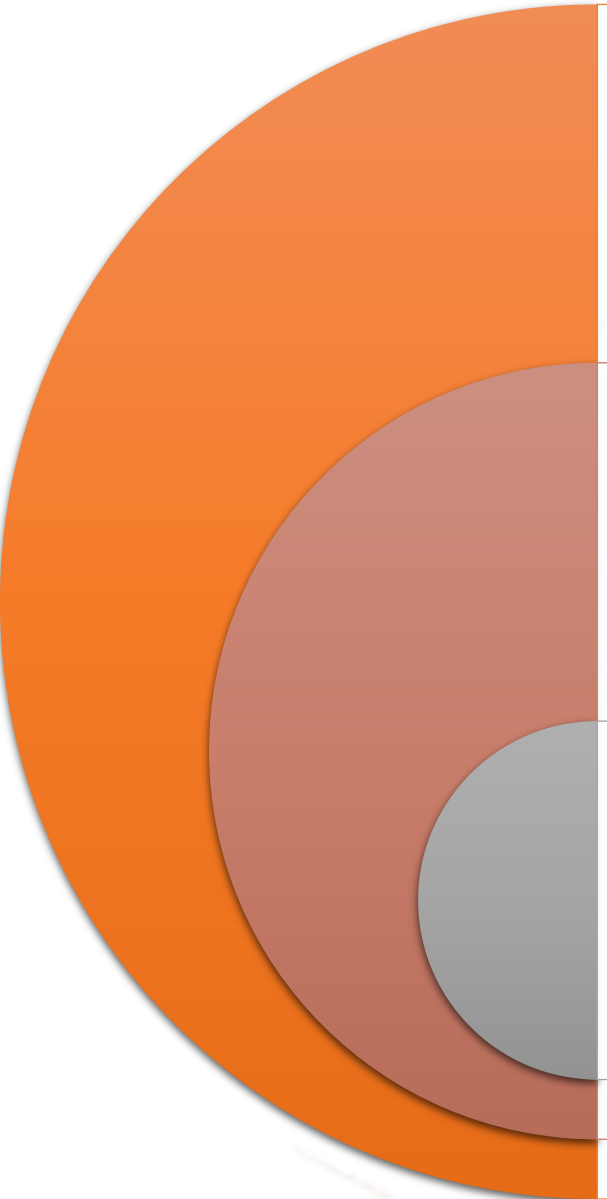
Without regard for any resource limitations

Determine the amount of scheduling flexibility

Represents the longest path through a project

Which determines the shortest possible project duration

Tools: Critical chain Method



To Introduce:

- Concept of buffers and buffer management
- Resource-constrained critical path = Critical Chain

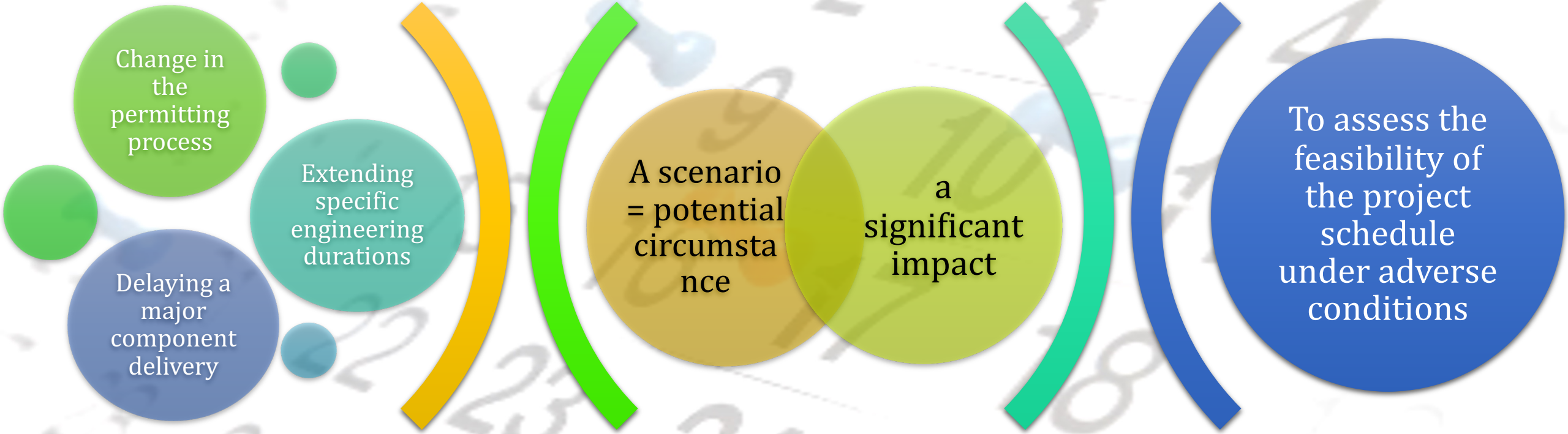
To consider:

- Effects of resource allocation
- Resource optimization
- Resource leveling
- Activity duration uncertainty

To Account:

- Limited resources
- Project uncertainties

What-If Scenario Analysis (WISA)



"What if the situation represented by scenario 'X' happens?"

To compute the different scenarios

Outcome

Schedule compression

Crashing

- Shorten the schedule duration by adding resources
- Works only for activities on the critical path

Fast tracking

- Activities are performed in parallel for at least a portion of their duration
- Only works if activities can be overlapped

Outputs: Hammock Activity

A **hammock activity** (also *hammock task*) is a schedule or project planning term for a grouping of tasks that "hang" between two end dates.

The sub tasks are not really related in a hierarchical sense. This means that there is no fixed sequence of tasks – any of these subtasks can be done at any time, but there is no particular sequence.

Outputs: Hammock Activity

For example, let's say you have an activity called "**plan vacation**". It can have multiple sub tasks like "**book hotel**', "**get brochures**", "**book tickets**", "**find a guide**", "**check local attractions**" etc. Any of these tasks can be done first, without the other being started or completed. But there will be an overall target to complete "plan vacation" by the third quarter of the year.

The size of the hammock, or the duration of the hammock is calculated by the start date of the earliest task, and the finish date of the last task.