



Project management and the RI Life Cycle

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A detailed 3D rendering of the International Space Station (ISS) in orbit above the Earth. The station's complex structure, including its large solar panel arrays and various modules, is clearly visible against the blue and white background of the planet. The text 'ISS' is positioned in the upper right corner.

ISS

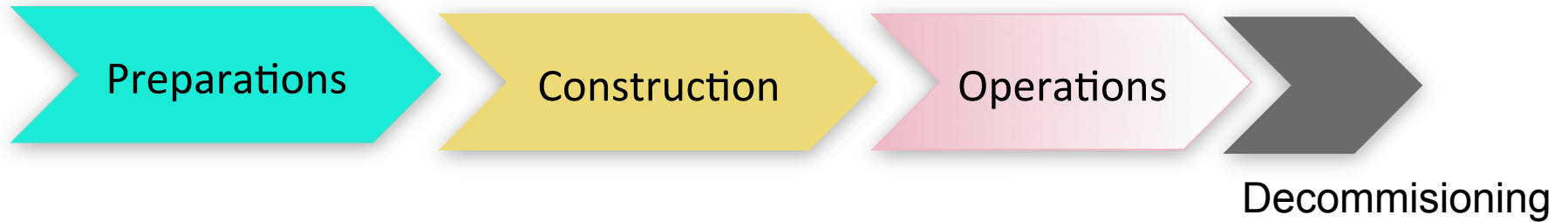
Managing a complex project,
... and the result

Project Management =

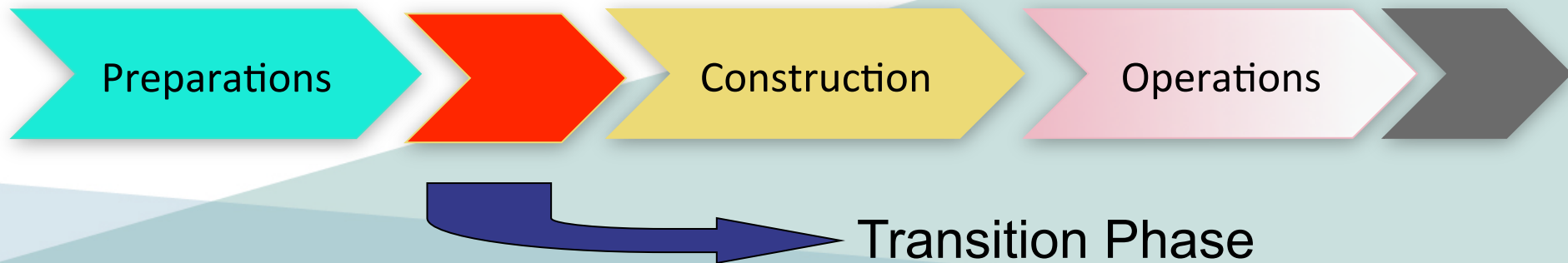
- planning
- organising
- securing
- controlling resources
- leading and managing

to achieve defined goals of a (time/resource)
limited project

The ideal sequence of RI project phases



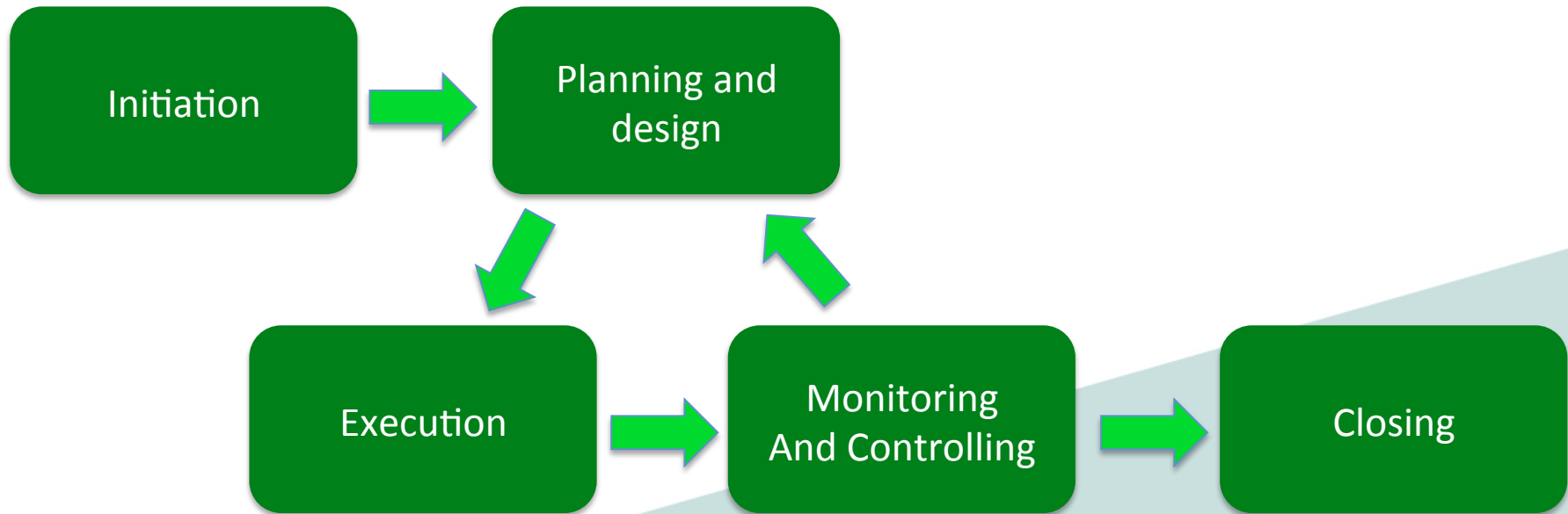
The reality



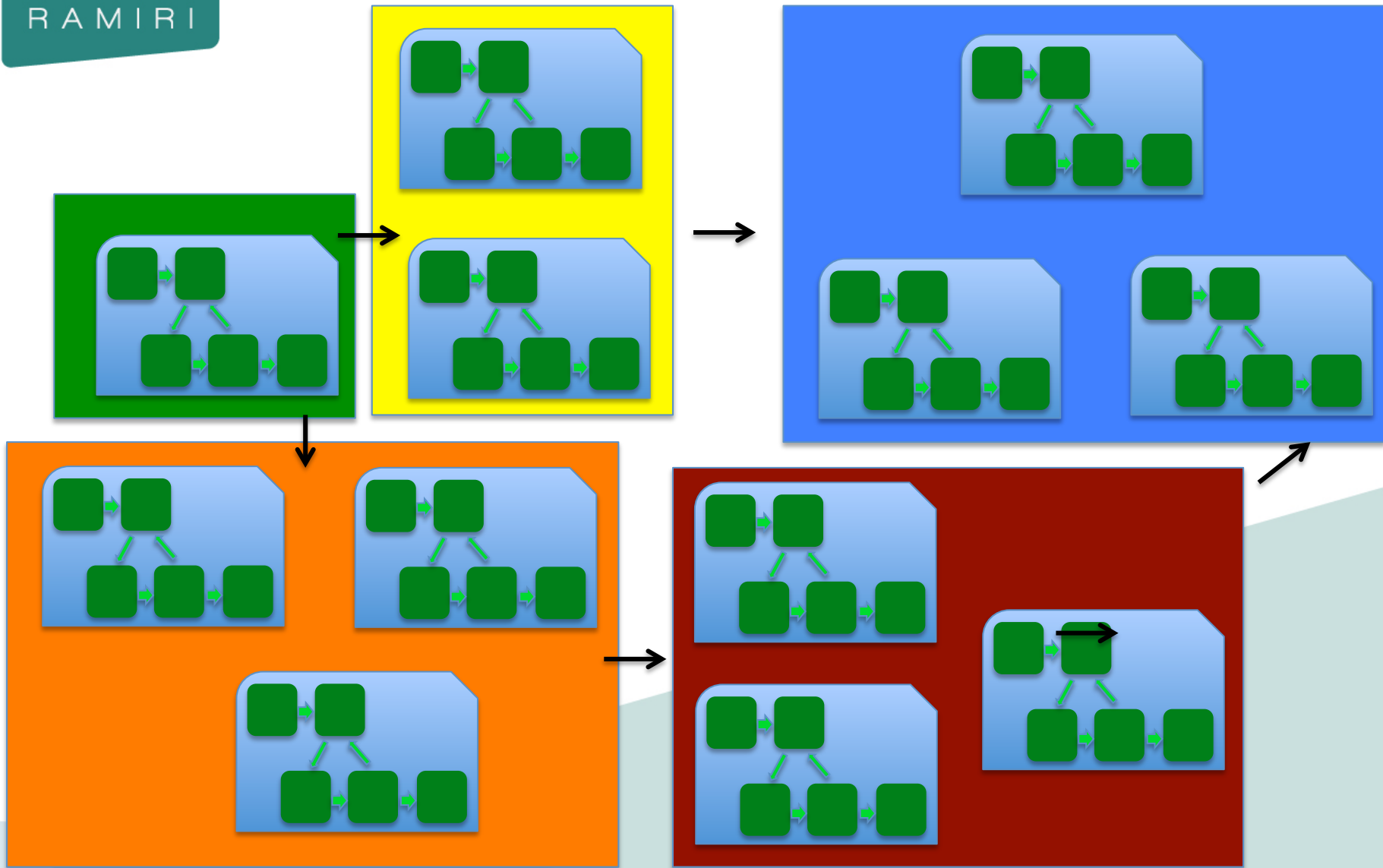
Management considerations

1. Who is in charge and makes the decisions?
2. Who is paying?
3. Who is managing?
4. How to secure continuity?

The ideal project time line



RAMIRI



Project management methodologies - 1

Waterfall model (for example PRINCE2)

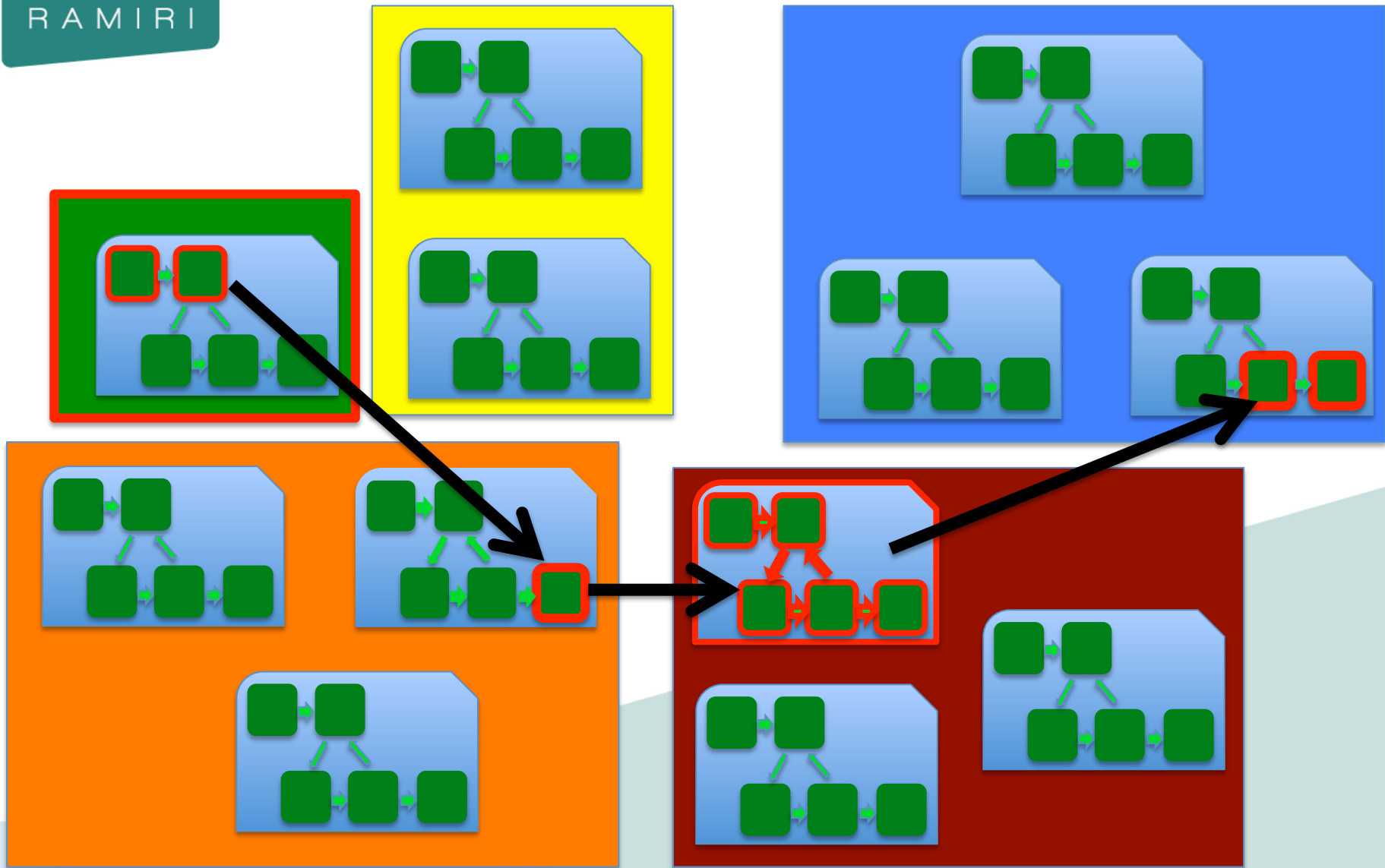
- one series of subprojects (tasks) after another in linear sequence
- each process is specified with its key inputs and outputs and with specific goals and activities
- works well for small, well defined projects

Project management methodologies - 2

Critical chain project management

- Is considering resource limitation as key parameter,
- to reduce uncertainties
- Identify priority tasks in the critical chain

RAMIRI



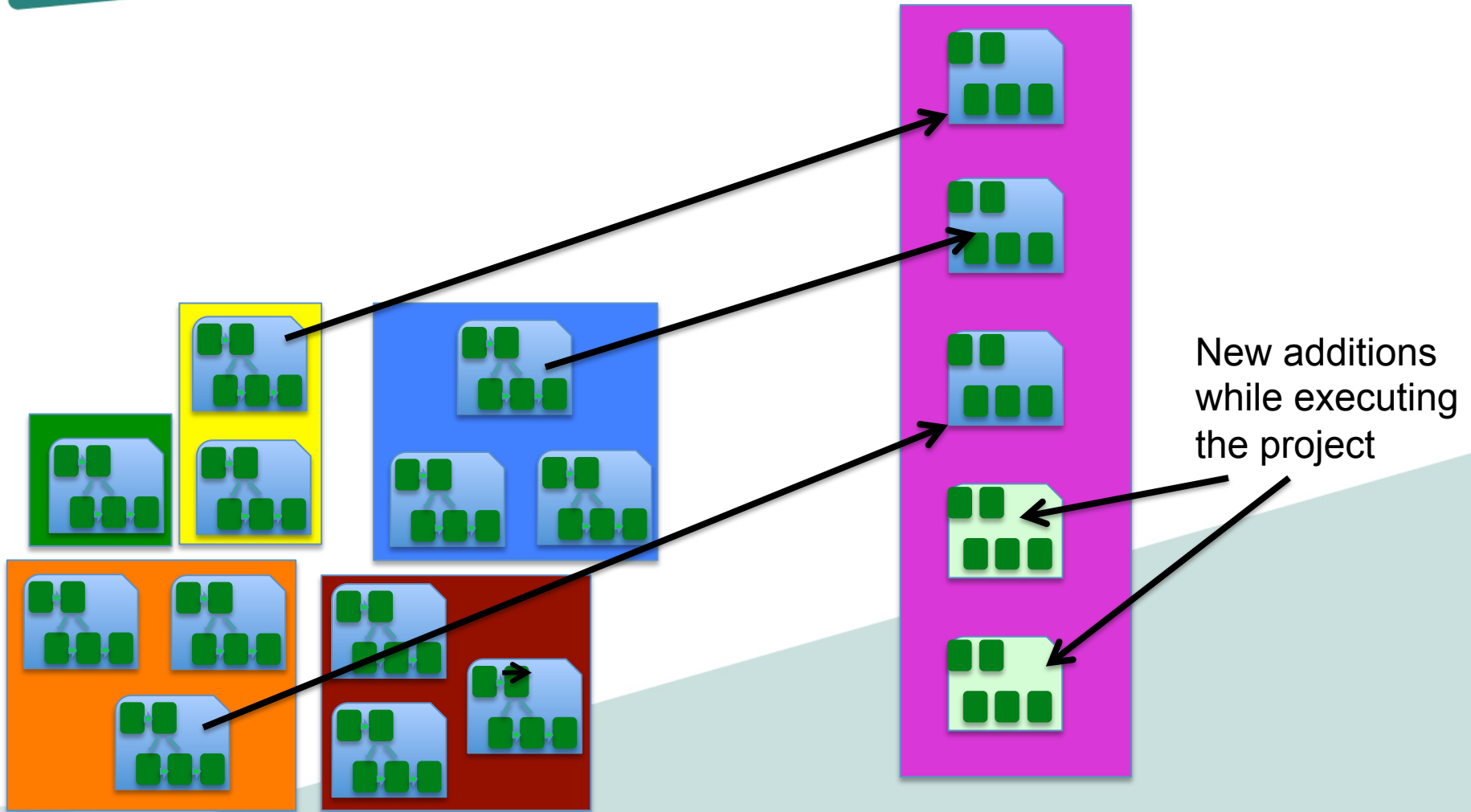
Project management methodologies - 3

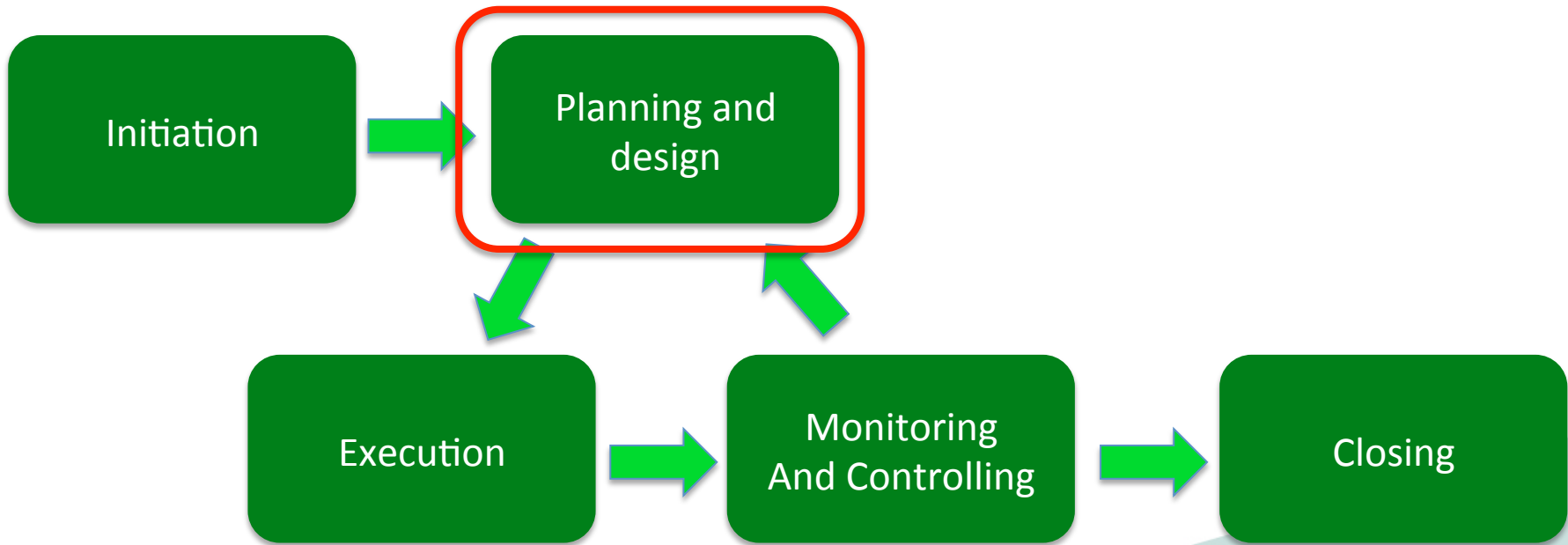
Event chain methodology

- Consider probably of (external) disruptions and risks
- Manage on mitigating (potential) negative impacts rather than the project process itself

Project management methodologies - 4

- Agile project management
- all small project tasks are conceived and executed in an adaptive manner
- and rather than as a completely pre-planned process





Planning and design

- Design specification, process steps, internal/outsourced activities
- What kind of project planning (waterfall etc?)
- Identify deliverables and work breakdown
- Identify activities required to deliver
- Estimate resource requirements and match with budget and time
- Organise risk planning
- Select project team, suppliers and **management**
- Get approval

Execute and produce

- Complete each task within budget and time
- Coordinate people and resources
- Integrate with conditional and dependent other tasks
- Document processes and deliverable results
- Communicate

Monitoring and controlling

- Measuring “where are we?”
- Monitor variables (cost, effort, scope) against the plan
- Identify corrective actions to address
- Check feed back with related tasks
- Consider updates

Into operation or closure

- Formal acceptance of delivery and end of (sub) project
- Closure, when no or not sufficient delivery
- Archive “lessons learned”
- Re-locate staff and settle any contracts

RI project management

- Projects may involve:
 - A new research infrastructure
 - A machine
 - A sensor network
 - Interoperable databases and tools
 - The RI service organisation
 - A user involvement programme
 - A (new) user selection procedure
- Consider in which phase the project is running
 - Preparations, transition to construction, construction, upgrade, decommission
- Be aware of:
 - Who is in charge and makes the decisions?
 - Who is paying?
 - Who is managing?
 - How to secure continuity?

Perspectives in RI project management

- Manage product development and delivery
- Manage distributed (tendered and in-kind) contributions
- Manage performance and risks
- Manage expectations of multiple stakeholders -> strategies
- Manage the project organisation
- Manage accountability
- Manage the management