concept

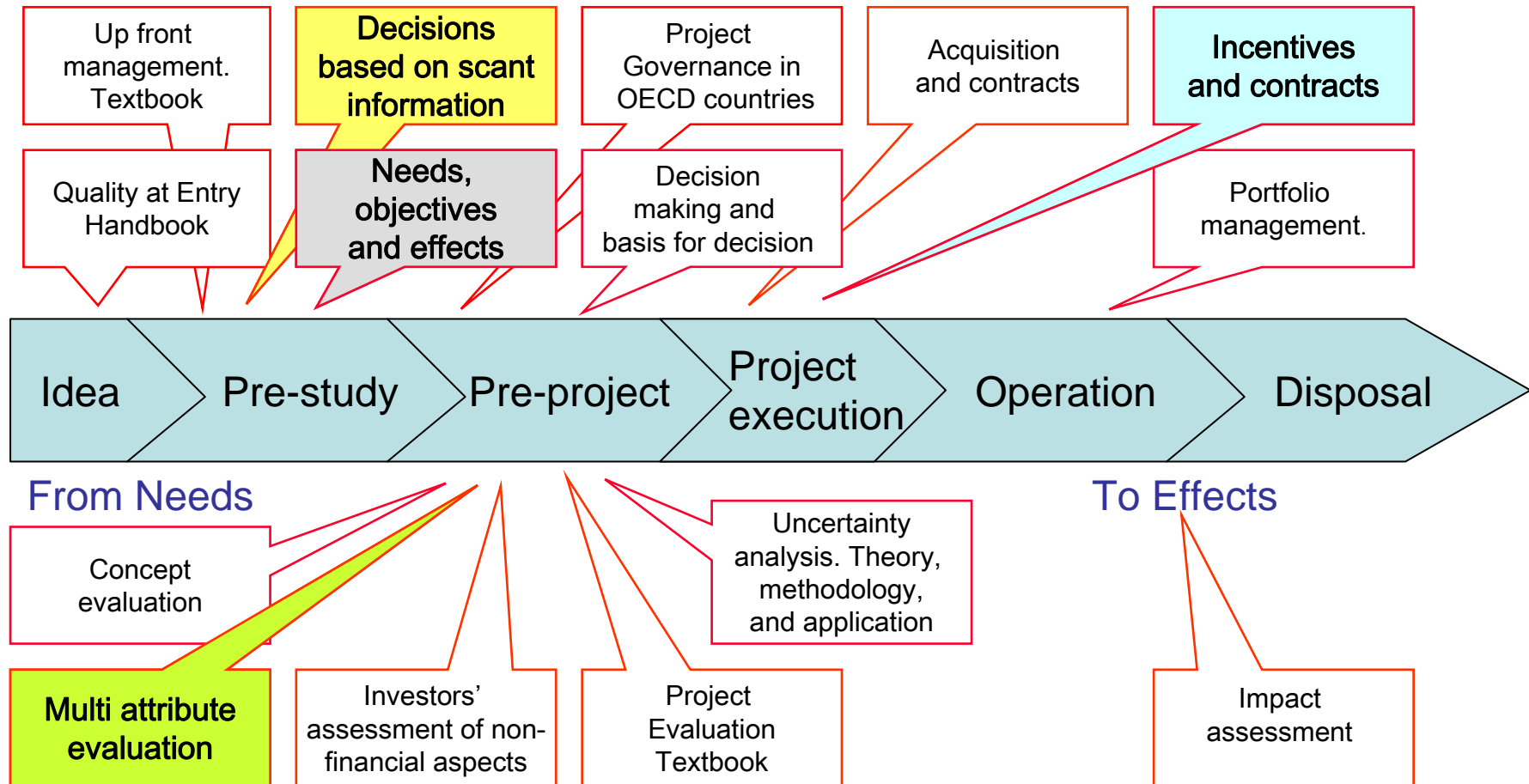TRONDHEIM, NORWAY
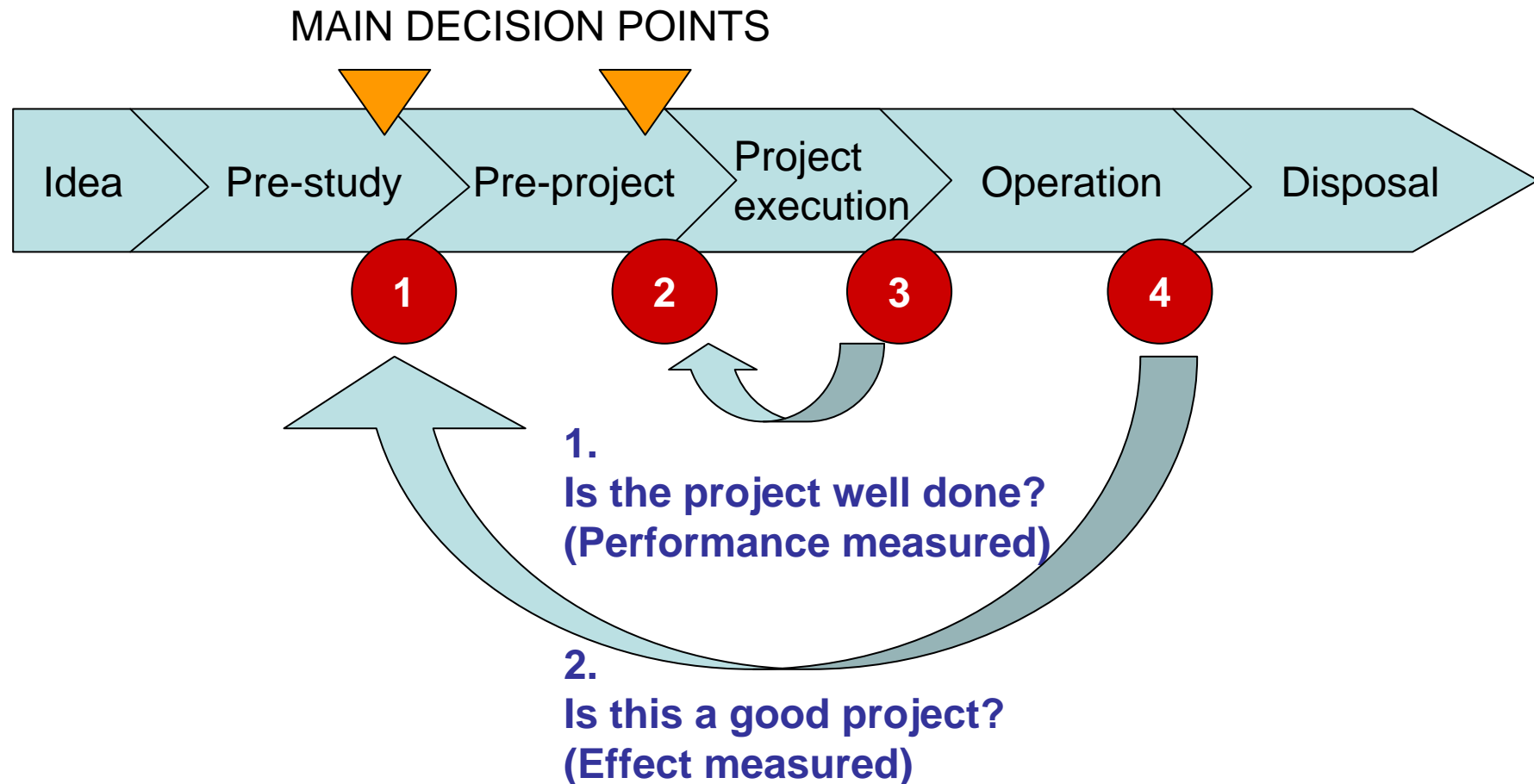25 – 26 SEPTEMBER 2008

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Findings from the
Concept Research Programme

Nils O. E. Olsson
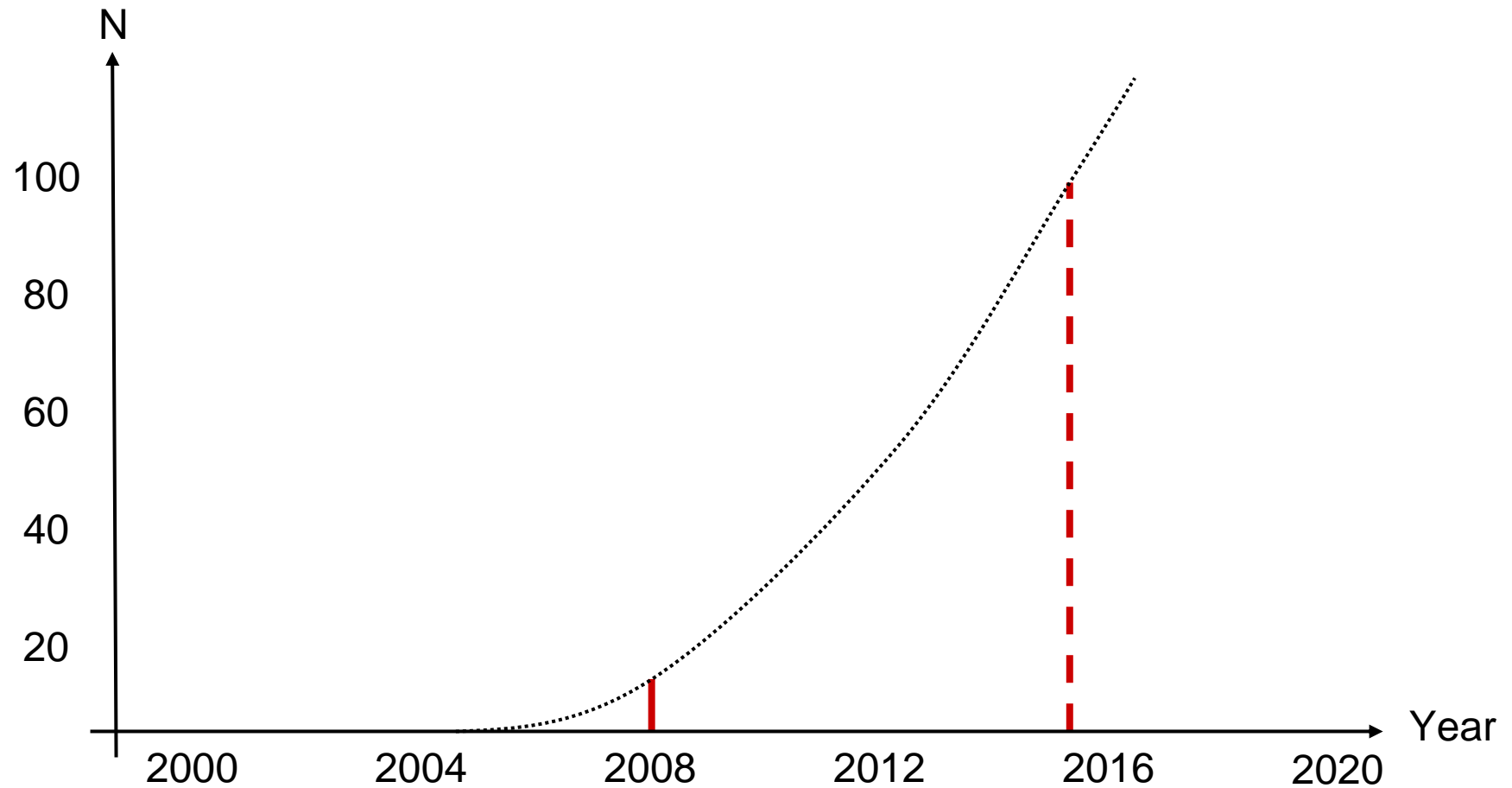
Ole Jonny Klakegg

Front-end management with a life-cycle perspective

Efficiency and Effectiveness –
Two perspectives on projects

MAIN DECISION POINTS

| Idea | Pre-study | Pre-project | Project execution | Operation | Disposal |

1.
Is the project well done?
(Performance measured)

2.
Is this a good project?
(Effect measured)

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Indications based on scant data

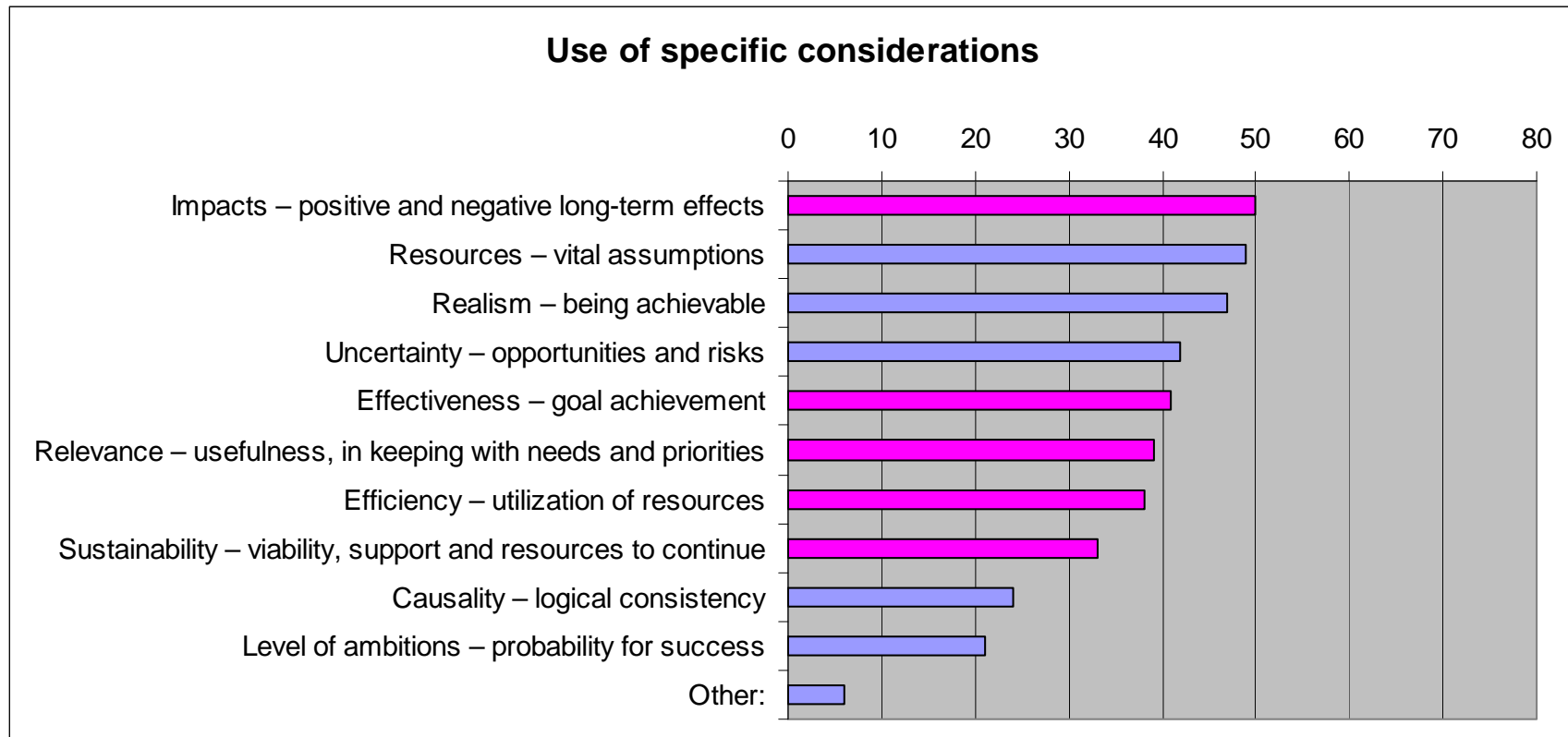Prognosis for the number of finished projects in the database

On what basis should a project concept be evaluated?

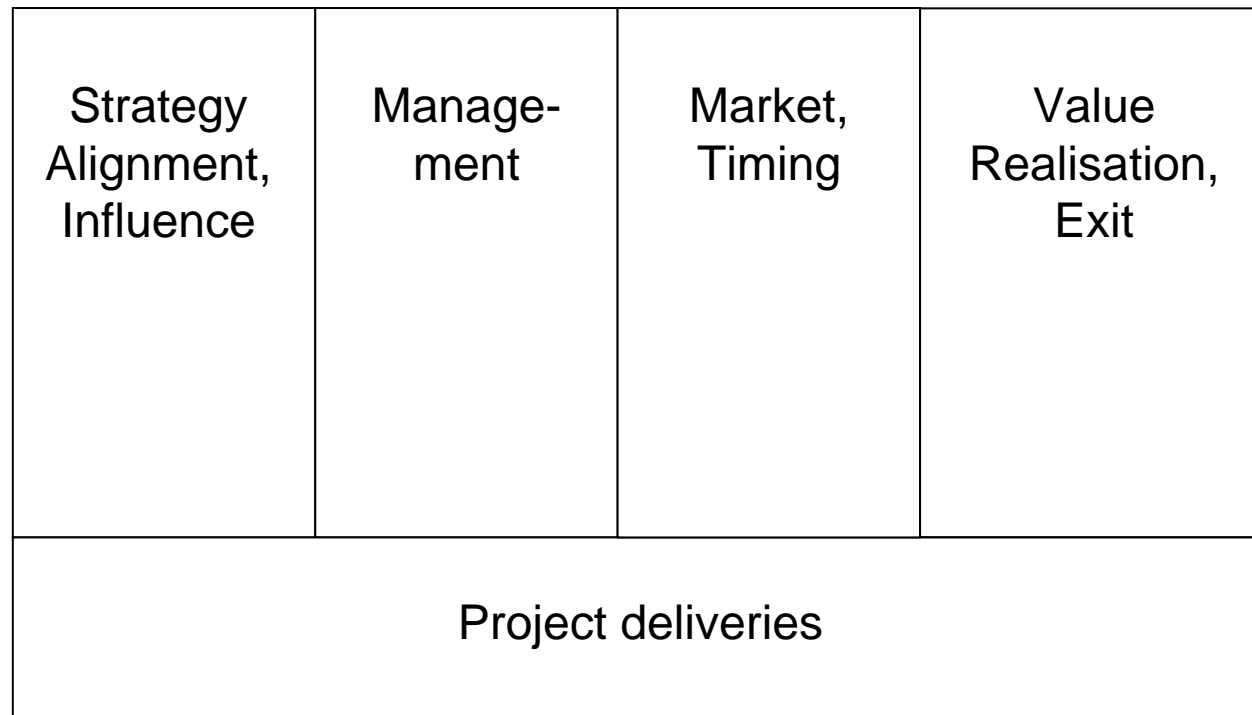**OECD**

Best practice reference for success measures:

- Efficiency (transforming inputs into results)
- Effectiveness (achievement of objectives)
- Impact (positive and negative changes)
- Relevance (in keeping with priorities and needs)
- Sustainability (effect maintained after the project concluded)

Stated considerations when defining goals

Use of specific considerations

	0	10	20	30	40	50	60	70	80

- Impacts – positive and negative long-term effects
- Resources – vital assumptions
- Realism – being achievable
- Uncertainty – opportunities and risks
- Effectiveness – goal achievement
- Relevance – usefulness, in keeping with needs and priorities
- Efficiency – utilization of resources
- Sustainability – viability, support and resources to continue
- Causality – logical consistency
- Level of ambitions – probability for success
- Other:

Survey 2007: N = 80 international experts (public and private sector)

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Finding the right investment opportunity

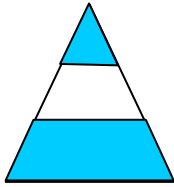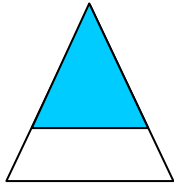| Strategy Alignment, Influence	Manage-ment	Market, Timing	Value Realisation, Exit

Project deliveries
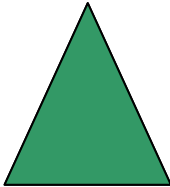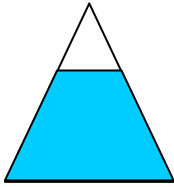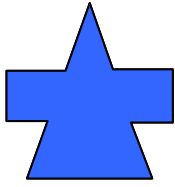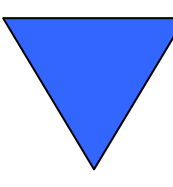
Investors' basis for decisions

What do you emphasize in project evaluation?	Informant									
	a.	b.	c.	d.	e.	f.	g.	h.	i.	j.
Knowledge and business experience	x	x	x	x	x	x	x	x	x	x
Management	x		x	x			x	x	x	x
Strategy and business alignment	x	x	x				x	x		x
Intuition	x		x	x	x			x	x	
Key statistics				x	x			x		x
Exit			x	x				x	x	

N = 10 In-dept interviews

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Is there a lack of fundamental logic in projects?

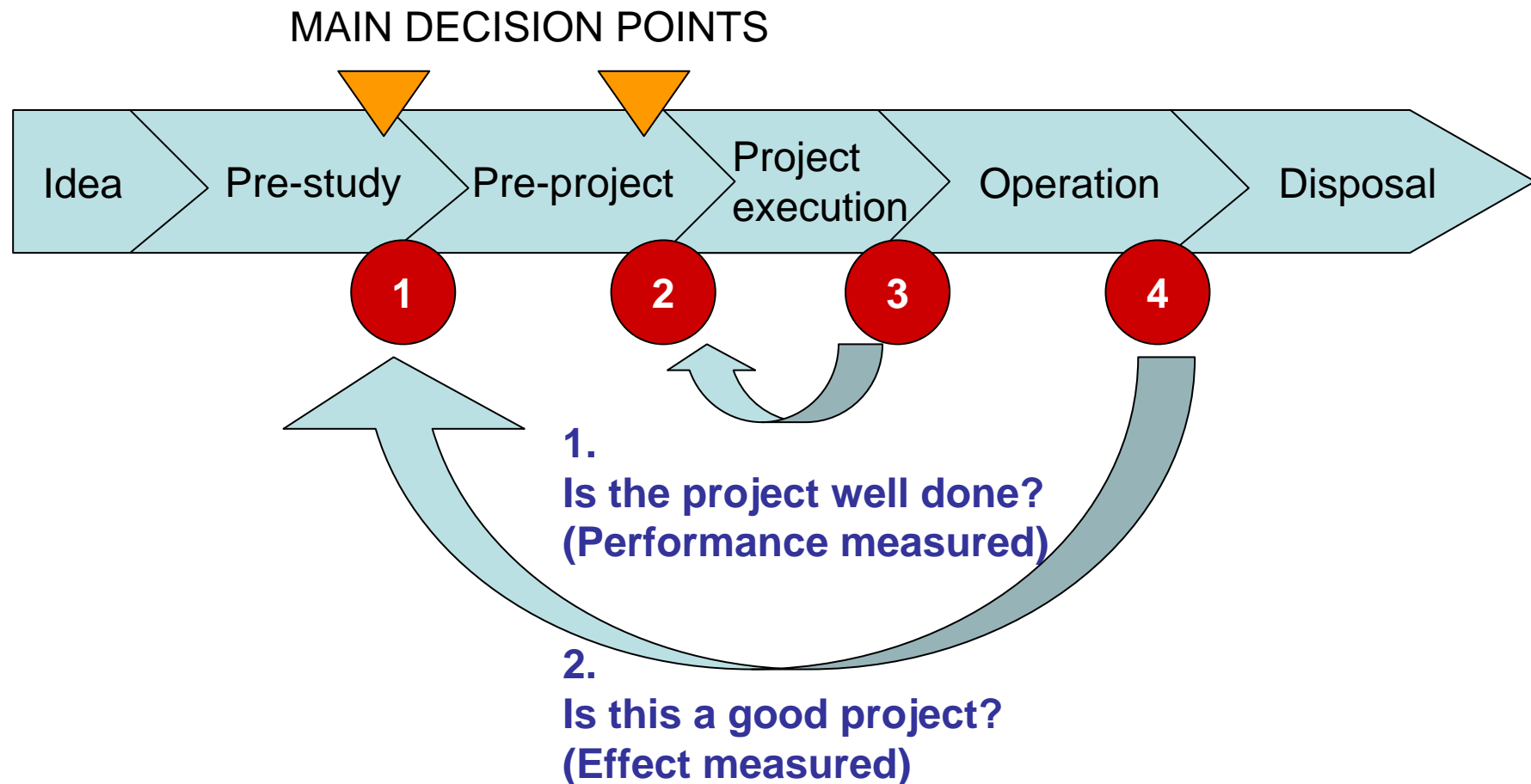| Category	A	B	C	D	E	F
Characteri-sation	Well defined	No purpose	No effect	No content	Parallel effects	Top heavy
Symbolic represen-tation						
Number of projects	15	7	3	2	21	2
Share of projects	**29,4%**	**13,7%**	5,9%	3,9%	**41,2%**	3,9%

Result of analysis: fundamental logic in defining project objectives. N = 51 projects.

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Are projects well designed?
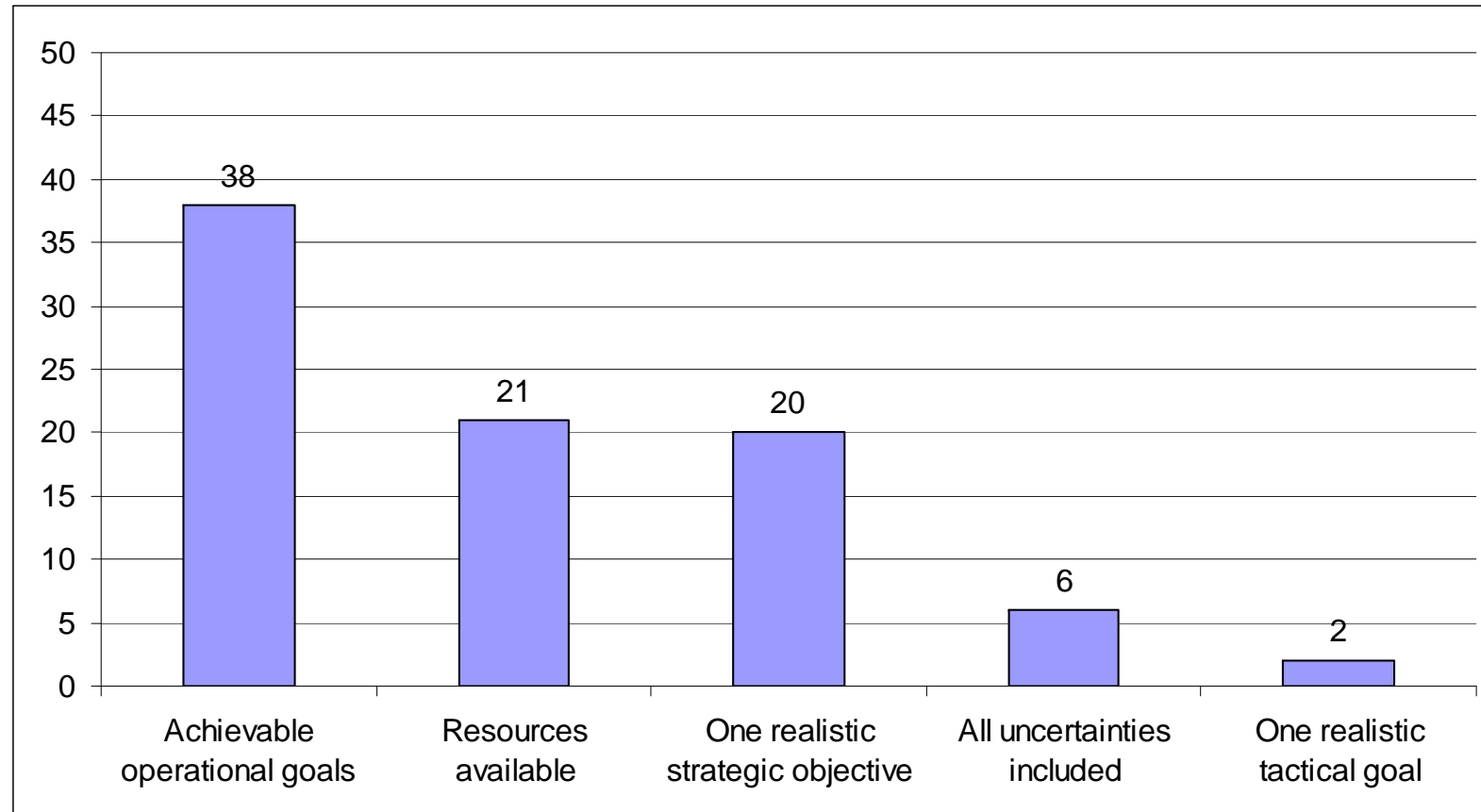
The number of projects meeting the best practice criteria. Total of 51 projects evaluated.

A shift of perspective

MAIN DECISION POINTS

Idea > Pre-study > Pre-project > Project execution > Operation > Disposal

1 2 3 4

**1.
Is the project well done?
(Performance measured)**

**2.
Is this a good project?
(Effect measured)**

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Uncertainty areas in major public projects

Category	Number	Percent
Organization (resources, ability)	48	20
Market	44	19
Technical issues	35	15
Scope management	26	11
Contracts	25	11
Project control	20	8
Project management	10	4
Nature	12	5
Users	6	3
New pre-requisites	3	1
Exchange rate	3	1
Interface other projects	2	1
Stakeholders, context	2	1
Handover to operations	1	0
Total	237	100

☐ Operational

☐ Contextual

☐ Interface

N = 79 projects

Size of Contingencies

Type of project	N	Contingency (mean)
ICT	4	17 %
Railway	4	12 %
Buildings	13	10 %
Roads	32	9 %
Defence procurement	14	7 %
Other	7	13 %
	74	

A converging view on cost estimates?

Indications of cost control

Actual cost: Deviation from the budgeted cost
N=15

Deviation from expected cost (positive numbers = overrun)
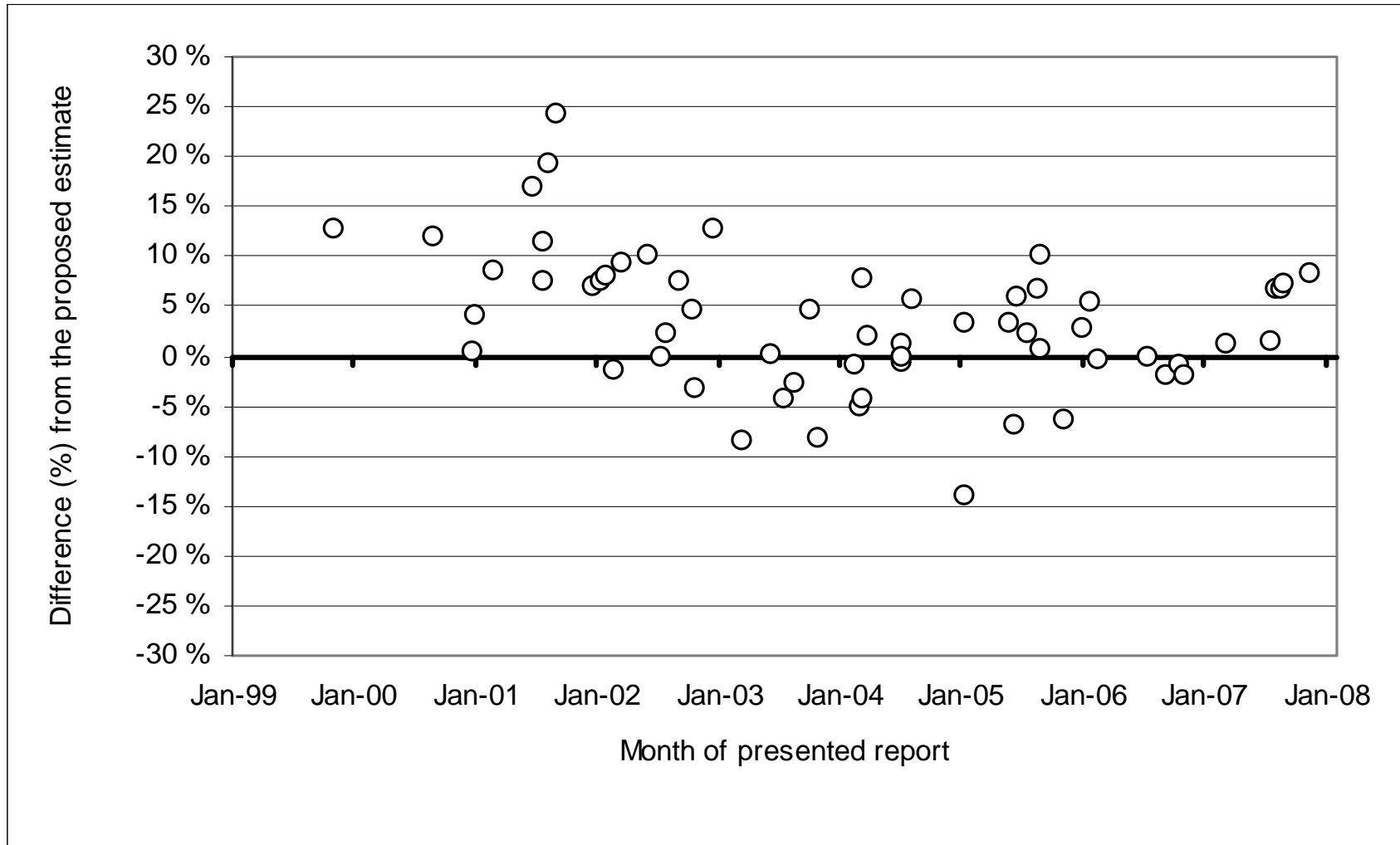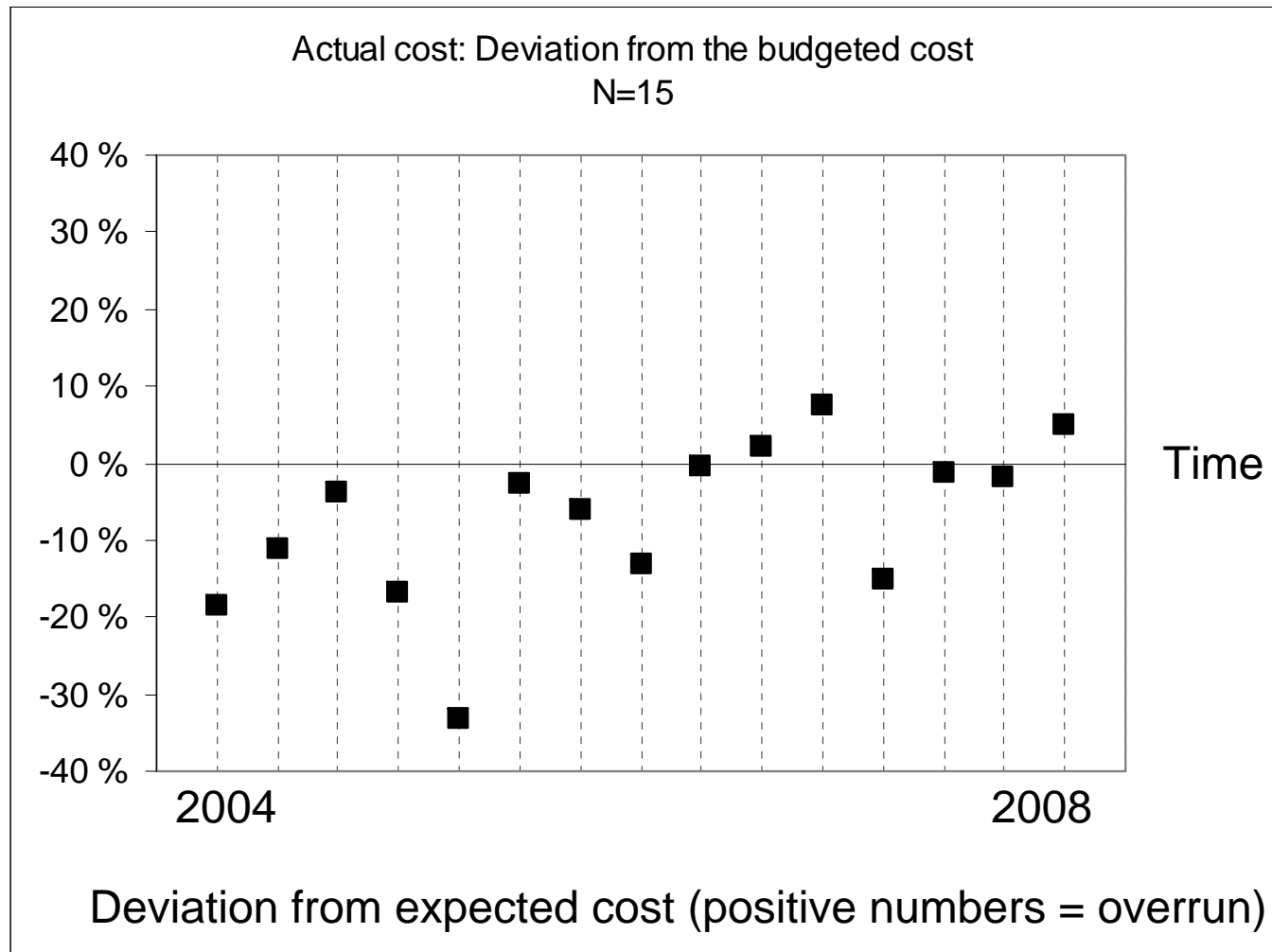
Indications of cost control in a larger portfolio

Scope change   Other changes   Total adjustments
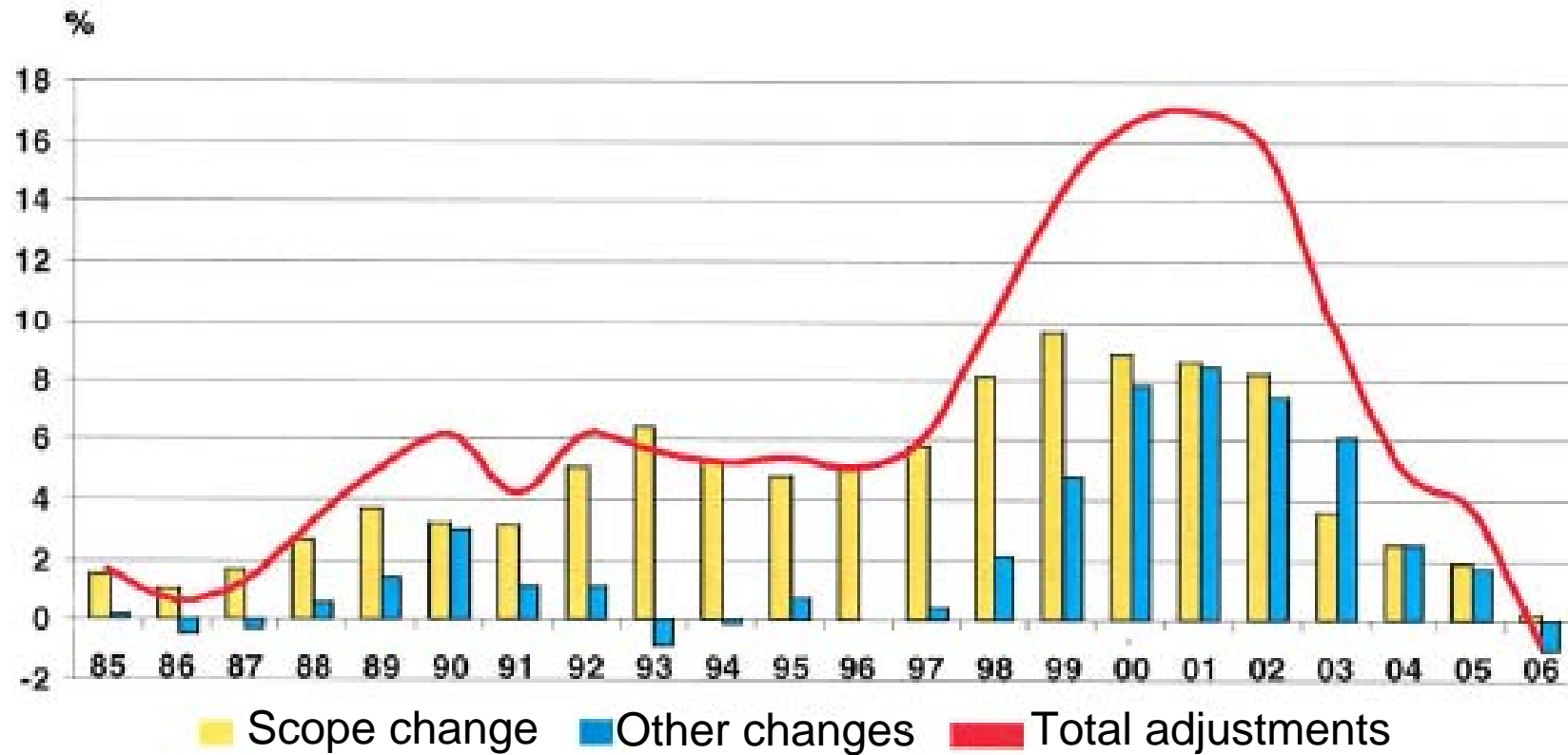
Projects grow more expensive over time

Road Projects   N=10
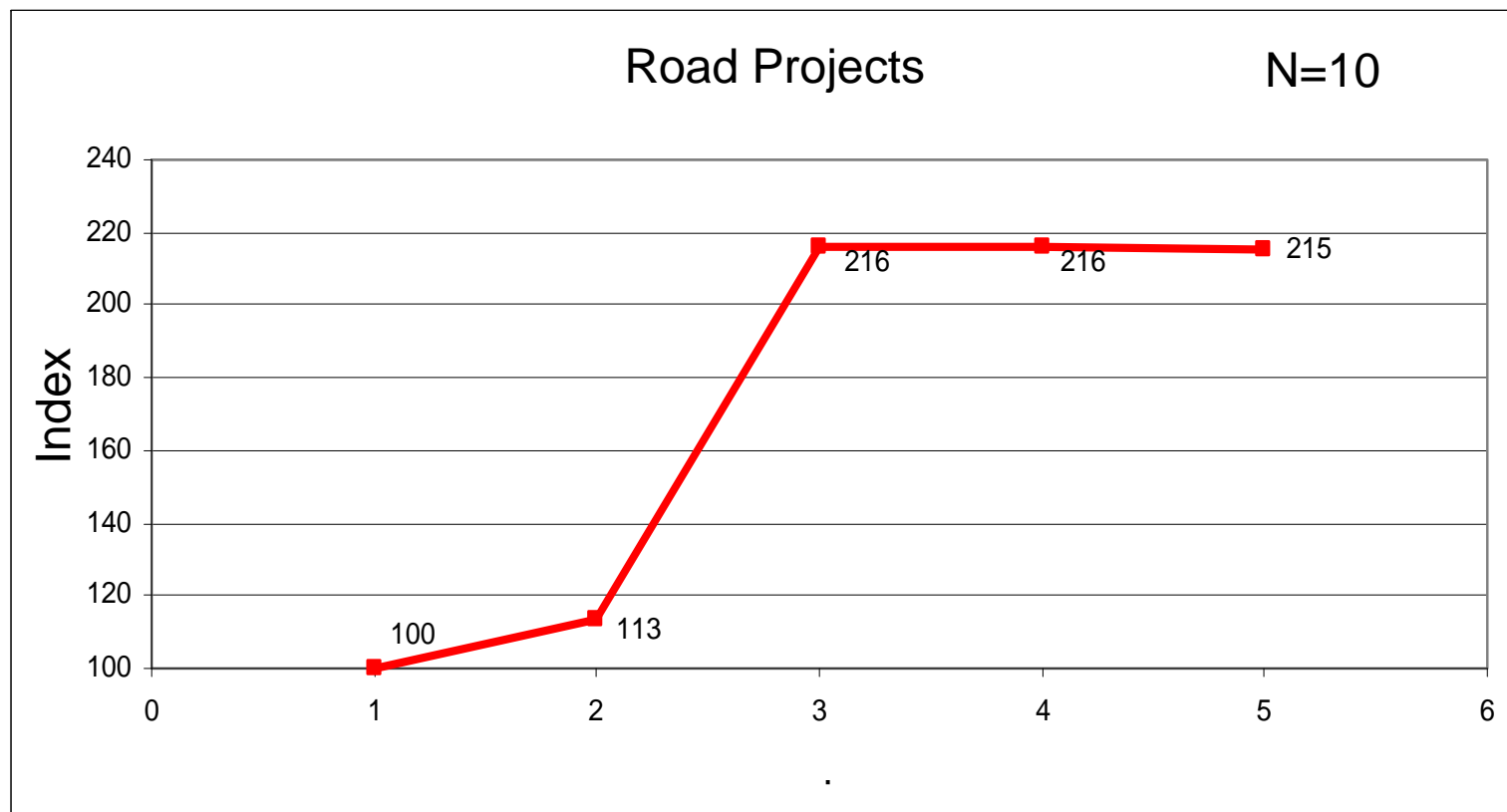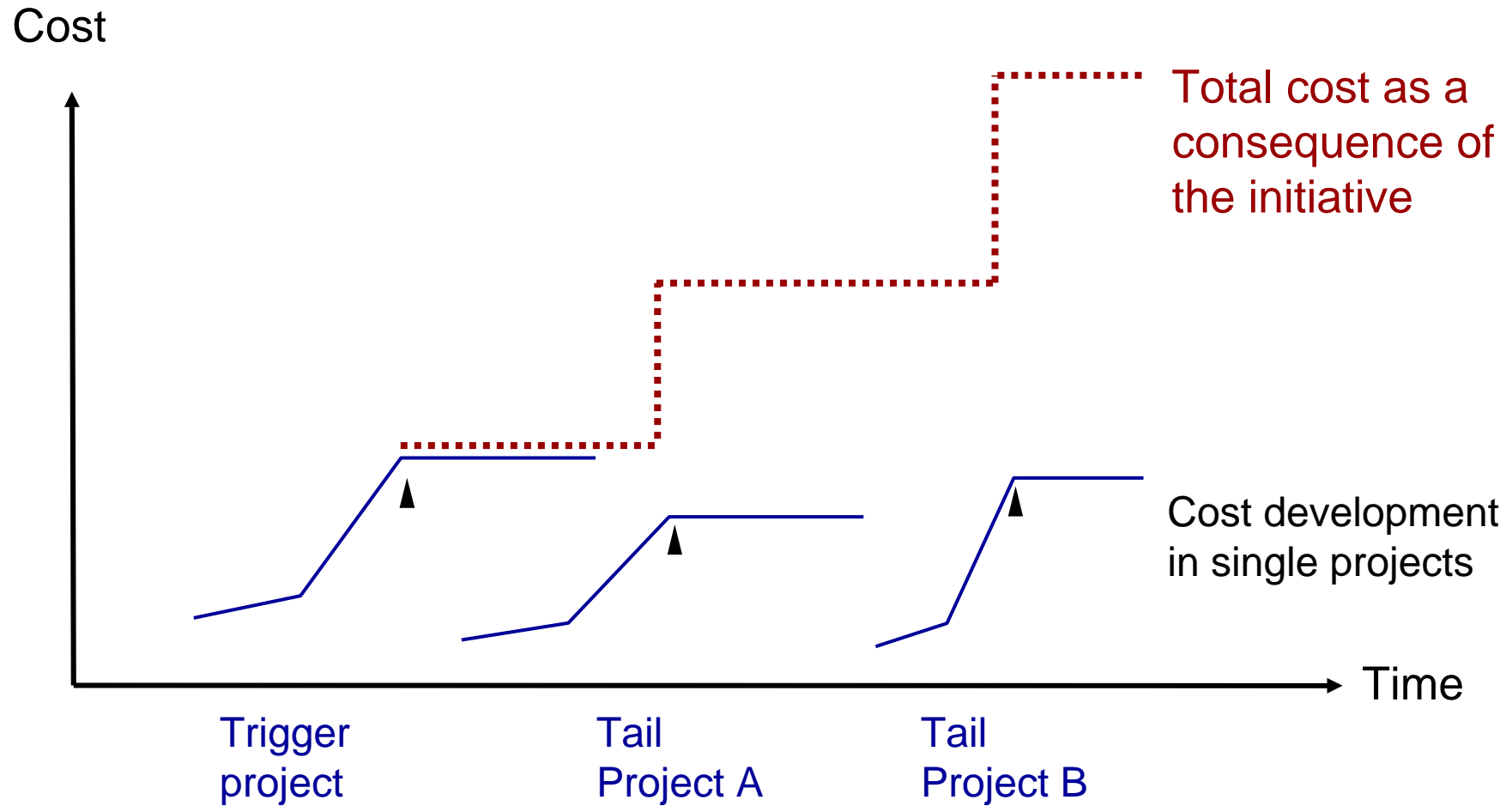
1. First estimate   3. QA2 estimate
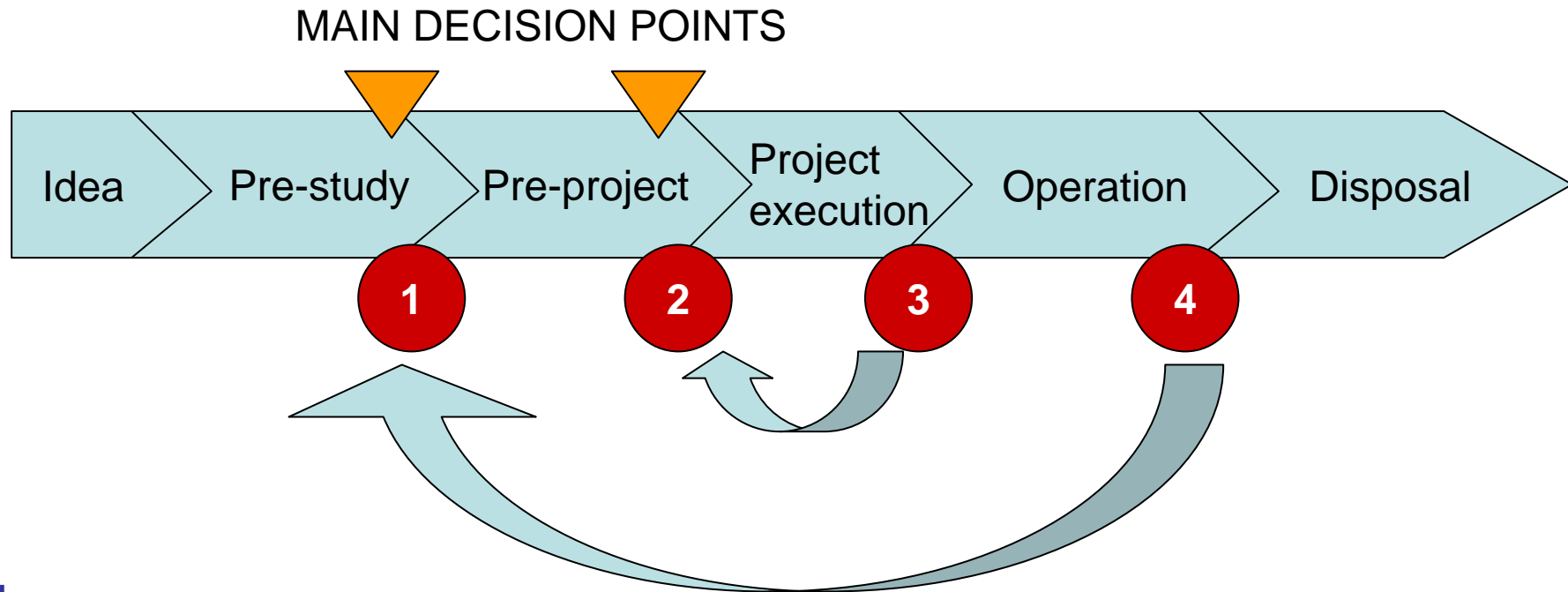2. NTP estimate   4. Parliamentary bill
                                        5. Current estimate

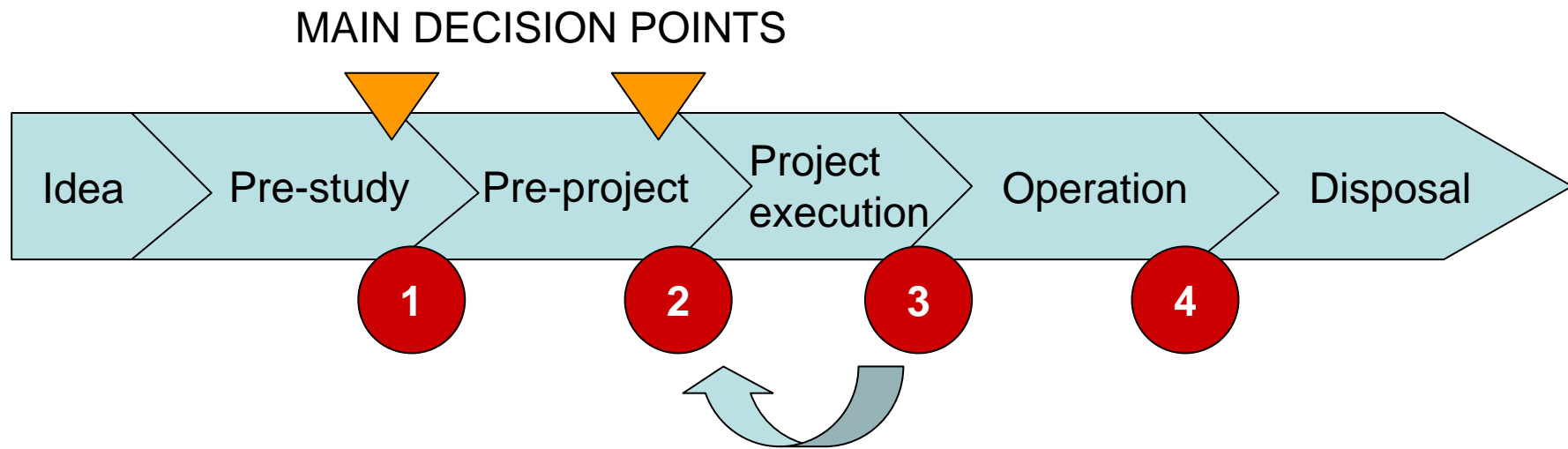# Amoebic growth of project clusters:
Trigger and Tail projects

Cost

Total cost as a consequence of the initiative

Cost development in single projects

Trigger project

Tail Project A

Tail Project B

Time

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Main indications in this material

MAIN DECISION POINTS

| Idea | Pre-study | Pre-project | Project execution | Operation | Disposal |

1   **2**   **3**   **4**

1.
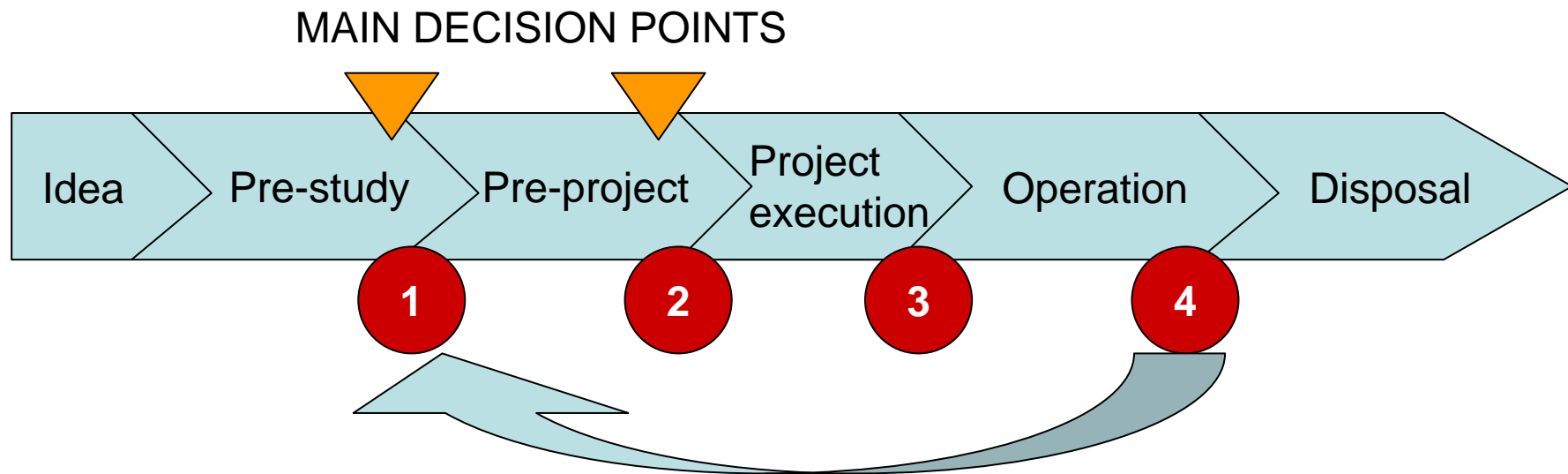**The first projects in our database seems to be well executed.**

2.
There are indications that the projects in the sample are not well defined. It is too early to tell whether they are successes.

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Looking into the future

MAIN DECISION POINTS

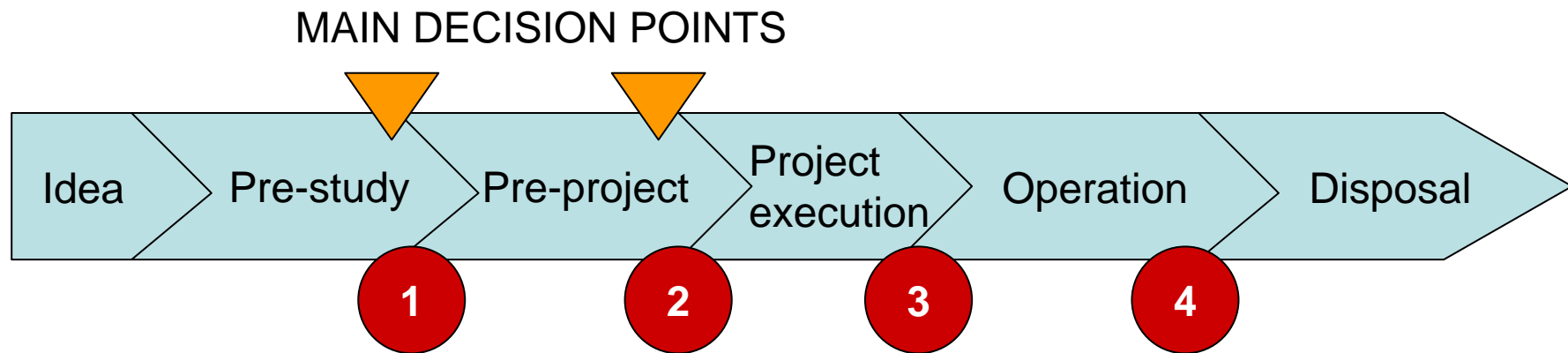| Idea | Pre-study | Pre-project | Project execution | Operation | Disposal |

1 **2** **3** **4**

- The 'small' learning cycle (efficiency):
  - Currently a substantial amount of front-end data
  - Waiting for more data from finished projects

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Looking into the future

MAIN DECISION POINTS

| Idea | Pre-study | Pre-project | Project execution | Operation | Disposal |

1   2   3   4

- The 'big' learning cycle (effectiveness):
  – Lack of data for many years yet
  – This is the most important part; patience is needed

Thank you for listening

MAIN DECISION POINTS

| Idea | Pre-study | Pre-project | Project execution | Operation | Disposal |

1   **2**   **3**   **4**

Any questions?

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