

PROJECT MANAGEMENT FOR SCIENTISTS

SCIENTIFIC VISIONS & STRATEGIES

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OUTLINE

- Vision, Strategy, and Tactics
- (Scientific) Visions
- Vision Requirements
- Strategic Thinking and Planning
- Strategic Analysis (SWOT)
- Strategic Goals (SMART)
- Tactics

VISION, STRATEGY & TACTICS

- **Vision:** a dream that may never be reached, concentrates on the future, inspires, provides clear decision-making criteria
- **Strategy:** pro-actively planned long-term actions to reach a well-defined (strategic) goal
- **Tactics:** short-term reactions to externally driven events to stay on the fastest path to the goal

(SCIENTIFIC) VISIONS

- Dream
- Imagination (“Imagine a day when ...”)
- Sudden insight
- Idea
- Discovery
- Thought
- ...

VISION REQUIREMENTS

- Clear (unambiguous, clear focus and direction)
- Inspiring (a bright future that energizes)
- Engaging (people want to join)
- Possible (not impossible)
- Forward-looking (future, hoped-for state)

VISION STATEMENT

- Brief: single (or few) sentences
- Leading: Guides strategic decisions
- Concise: Captures essence of a project
- Aspiring: Describes best possible outcome
- Attractive: Helps getting project funded

- Rarely required for projects
- Almost all organizations have it

GOOD VISION STATEMENTS

- Written in present, not future tense
- Summarizes with powerful phrase
- Describes best possible outcome
- Uses straightforward language
- Evokes emotions
- Helps build same picture in people's minds

Based on www.changefactory.com.au/articles/business-strategy/the-components-of-a-good-vision-statement/

POOR VISION STATEMENTS

- Use generic phrases
- Confuse visions with clear goals and objectives
- Describe process or method rather than outcome
- Provide no measure of success
- Not visionary, inspiring, engaging

GOOD OR BAD? (1)

- “Maximize our customers' ability to get their work done”
- “There will be a personal computer on every desk running Microsoft software.”
- “Create experiences that combine the magic of software with the power of Internet services across a world of devices.”

GOOD OR BAD? (2)

- “To build the largest and most complete Amateur Radio community site on the Internet.”
- "PepsiCo's responsibility is to continually improve all aspects of the world in which we operate - environment, social, economic - creating a better tomorrow than today.”
- “To be a world-leading institute in stellar astrophysics and the leading institute for optical astronomical instrumentation in the Netherlands.”

STRATEGY

Strategy makes a vision come true:

1. Analyze the current situation
2. Define (strategic) goals that bring you (closer) to achieving your vision
3. Map route(s) to those goals

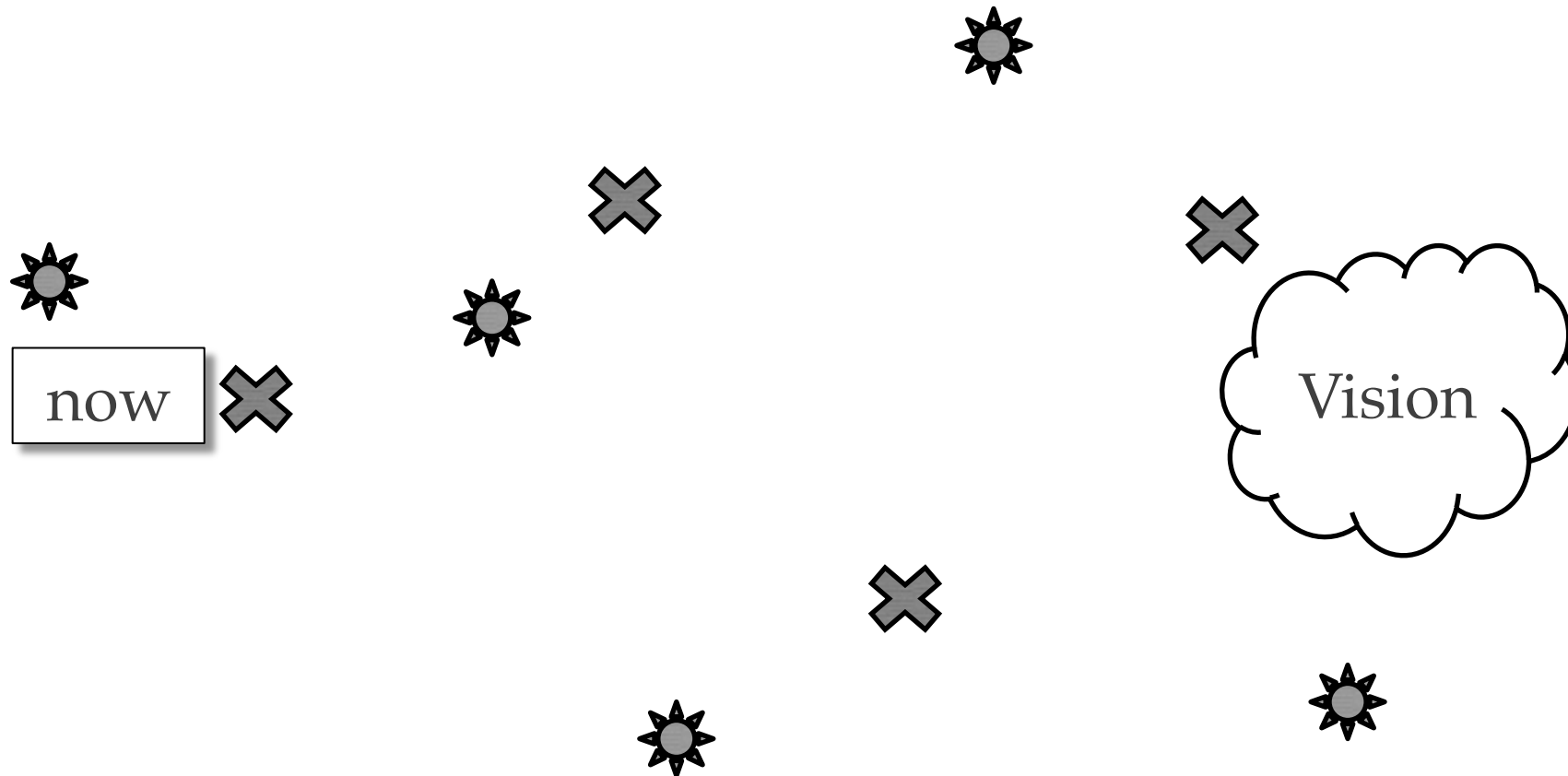
STRATEGIC PLANNING: VISION

now

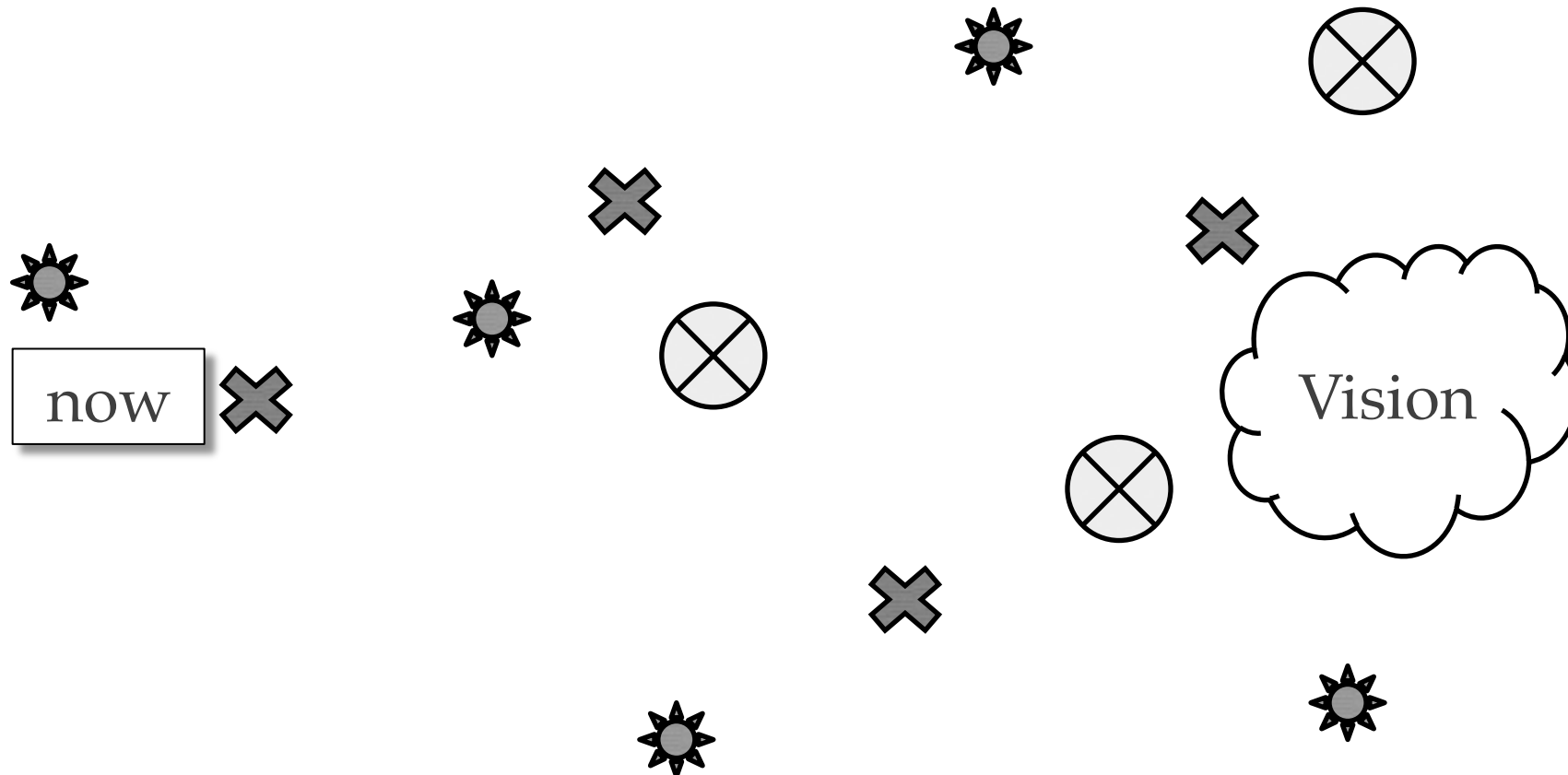


Vision

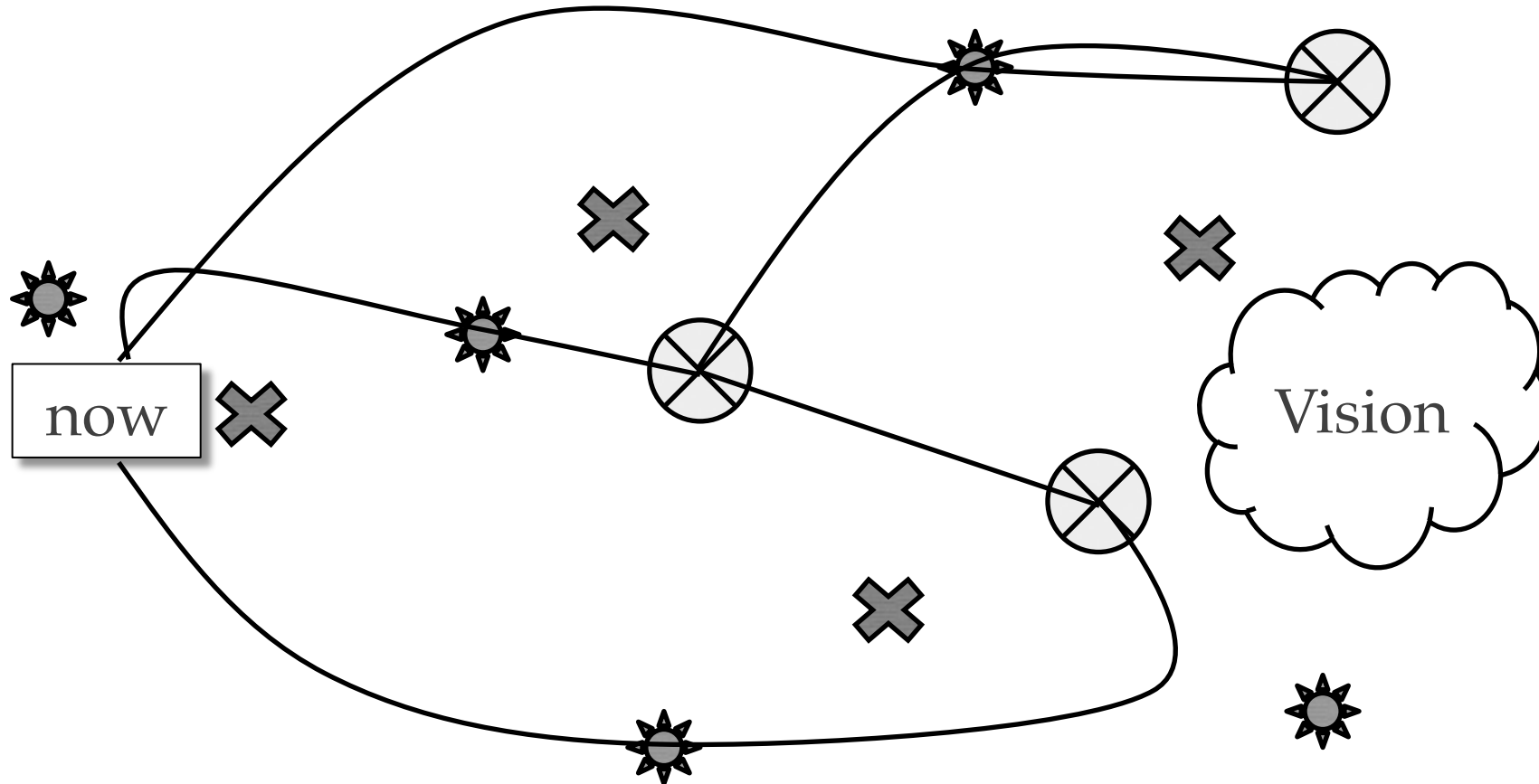
STRATEGIC PLANNING: SITUATION



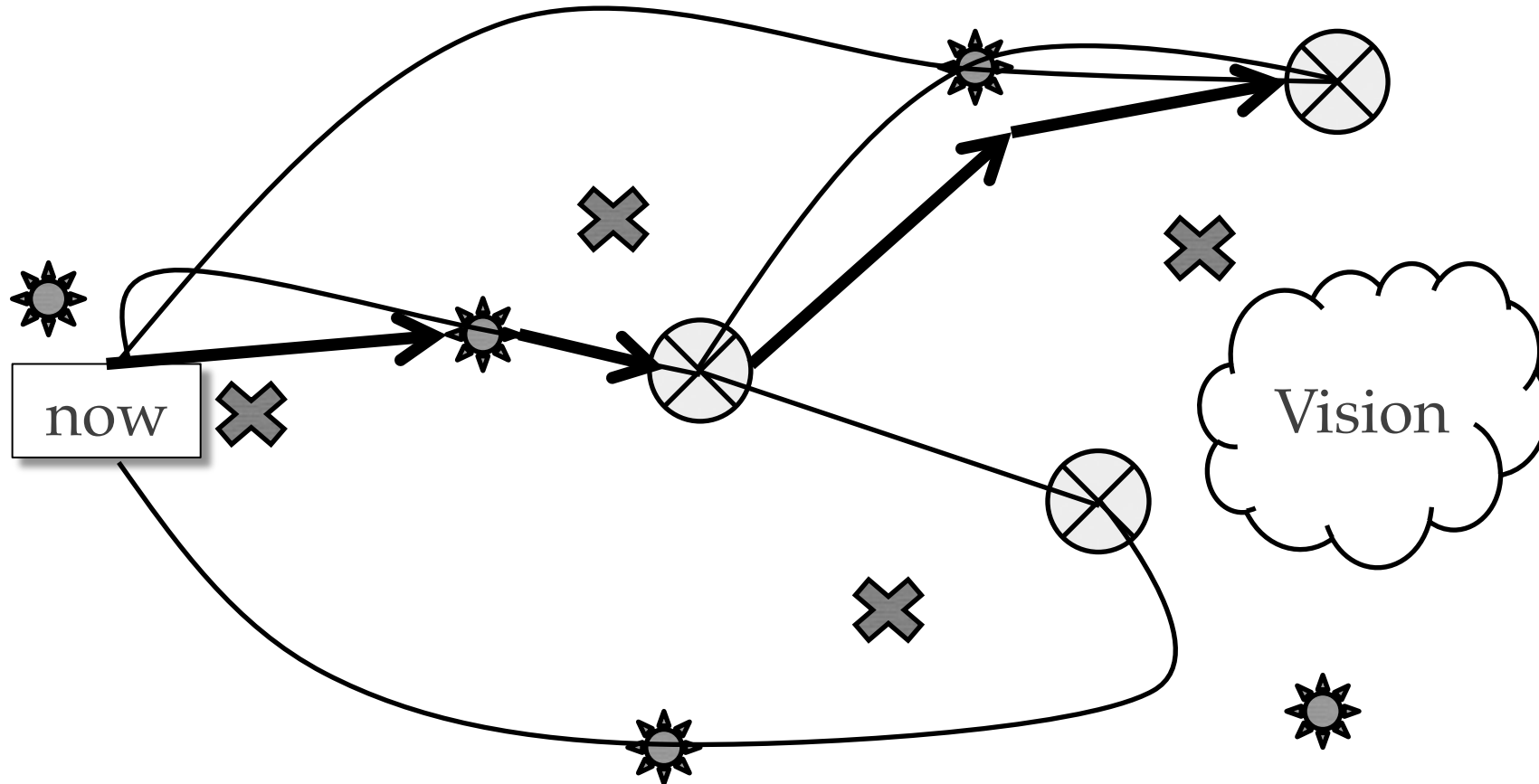
STRATEGIC PLANNING: GOALS



STRATEGIC PLANNING: PATHS



STRATEGIC PLANNING: PROJECTS



SWOT SITUATION ANALYSIS

positive	<u>S</u>trengths	<u>O</u>pportunities
negative	<u>W</u>eaknesses	<u>T</u>hreats
	present / internal	future / external

WHAT TO ANALYZE WITH SWOT

- Knowledge
- Competition
- Partners
- Technology
- Funding
- People
- Culture
- Politics

Consider at these levels:

- Organization
- Local
- National
- International

EXAMPLE SWOT ANALYSIS

- S: Well-focused, recognized research program
- W: Limited attractiveness of research area
- O: Advent of exciting new, related research areas
- T: Loss of critical staff

SWOT TO STRATEGIC GOALS

- Use strengths to take advantage of opportunities
- Use strengths to avoid threats
- Use opportunities to overcome weaknesses
- Minimize weaknesses and avoid threats

SMART STRATEGIC GOALS

- **S**pecific (well-defined, clear)
- **M**easurable (know if/ when goal has been achieved)
- **A**greed (by all stakeholders)
- **R**ealistic (within available resources, time, experience, etc.)
- **T**ime-based (due date, adequate time)

GOOD OR BAD (1)

- The desired reputation of an internationally renowned university is partly based on internally supported core values.
 - 50% of staff know the core values (employee survey)
 - 20% of students know the core values (student survey)

GOOD OR BAD (2)

- The university strengthens its reputation as a renowned research university with excellent teaching, both nationally and internationally.
- The image of the University as seen by key opinion leaders in the Netherlands and abroad concurs with our achievements and is in conformity with the desired qualities.
- The University has manifestly entered into collaborations with renowned institutes and organisations.
- Financial support through sponsorships triples.

TACTICS VS. STRATEGY

- Tactics: systematic determination and scheduling of immediate or short-term activities required to achieve strategic goals.
- Strategy without tactics is the slowest way to achieving the goal.
- Tactics without strategy is a random walk.