

# Sustainability initiatives for composites group projects (for the composites industry)

Dr. Martyn D. Wakeman

Visiting Scientist, EPFL-LPAC

[martyn.wakeman@epfl.ch](mailto:martyn.wakeman@epfl.ch) / [martyn@wakeman.ch](mailto:martyn@wakeman.ch)

# Group activity - SMART Initiatives ...

- Propose a minimum of 3 initiatives for your “MSE440” start-up group project
- Short, medium and longer term
- Discuss in your team, include in your written report & presentation

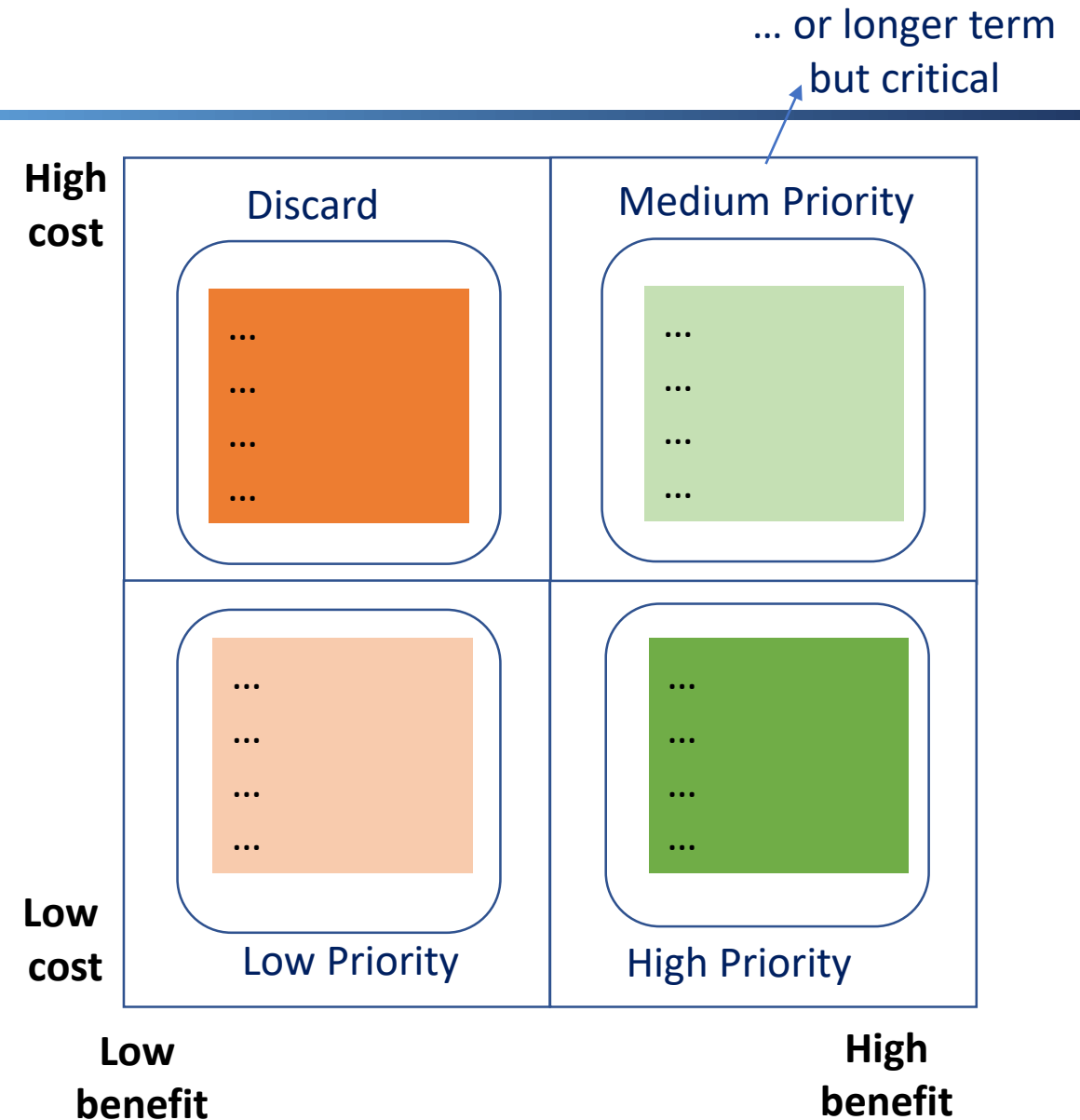


SMART objectives - Bing images

- **S**pecific
- **M**easurable
- **A**chievable
- **R**elevant
- **T**ime-oriented

# Sustainability initiatives

- Operations focused
  - Product focused
  - Supply chain
  - Industry wide
- 
- **Develop strategic mix of**
    - Short (fast to implement, low cost/high benefit)
    - Medium (transition to the future)
    - Longer term (high risk, high benefit, maybe high cost)



# Change management and influencing stakeholders

- **Change management**
  - a process, involves people, does not happen over-night, requires great effort
  - is difficult, things we can do to make it easier, but change is inevitable
  - relates to financial, operational, and strategic (competitors)
- **Stakeholders**
  - customers, suppliers, employees, financial / bankers / creditors, government, management, competitors, community, financial analysts, investors
- **AIDA approach**
  - Attention (need to change),
  - Interest (of stakeholders in the benefits),
  - Desire (stakeholders need to desire the change ... think their idea!),
  - Action



# Record a process, compare initiatives, plan next steps

|   | A | B       | C                                  | J                                                    | K             | L         | M   | N               |
|---|---|---------|------------------------------------|------------------------------------------------------|---------------|-----------|-----|-----------------|
| 1 |   |         |                                    |                                                      |               |           |     |                 |
| 2 |   |         |                                    | One initiative must score a 1 and a 9 in each column |               |           |     |                 |
| 3 |   |         |                                    | Ranking, higher better (1,3,9)                       |               |           |     |                 |
| 4 | # | Related | Describe Sustainability Initiative | Low cost?                                            | High benefit? | Low risk? | Sum | Select priority |
|   | ▼ | SDG ▼   | ▼                                  | ▼                                                    | ▼             | ▼         | ▼   | ▼               |
| 5 | 1 |         | photovoltaic panels                | 9                                                    | 9             | 9         | 27  |                 |
| 6 | 2 |         | lease e-utility vehicles           | 1                                                    | 3             | 3         | 7   |                 |
| 7 | 3 |         | endorse public transport to work   | 3                                                    | 1             | 3         | 7   |                 |
| 8 | 4 |         |                                    |                                                      |               |           | 0   |                 |
| 9 | 5 |         |                                    |                                                      |               |           | 0   |                 |

## Key questions

Specific measures, dates and plans for next steps? ▼ Challenges to implement the initiative? ▼ What would be needed to resolve these challenges? ▼ How could technology be used to facilitate resolution of these challenges? ▼

## Detail key issues

High level resources needed ▼ Rationale ▼ Costs ▼ Benefits ▼ Risks ▼ Key stake-holders ▼

