

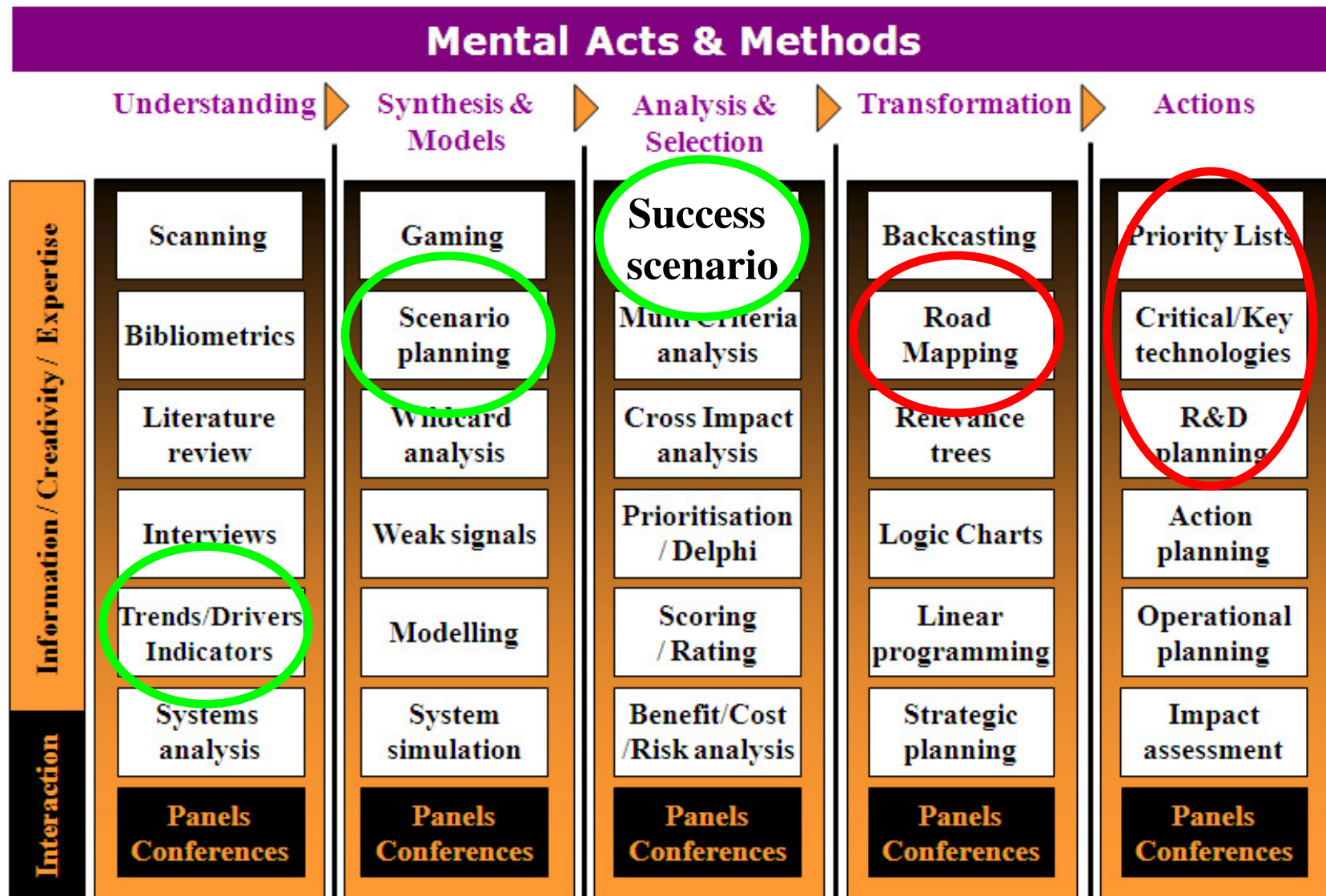
Technology Roadmapping

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Technology Roadmapping

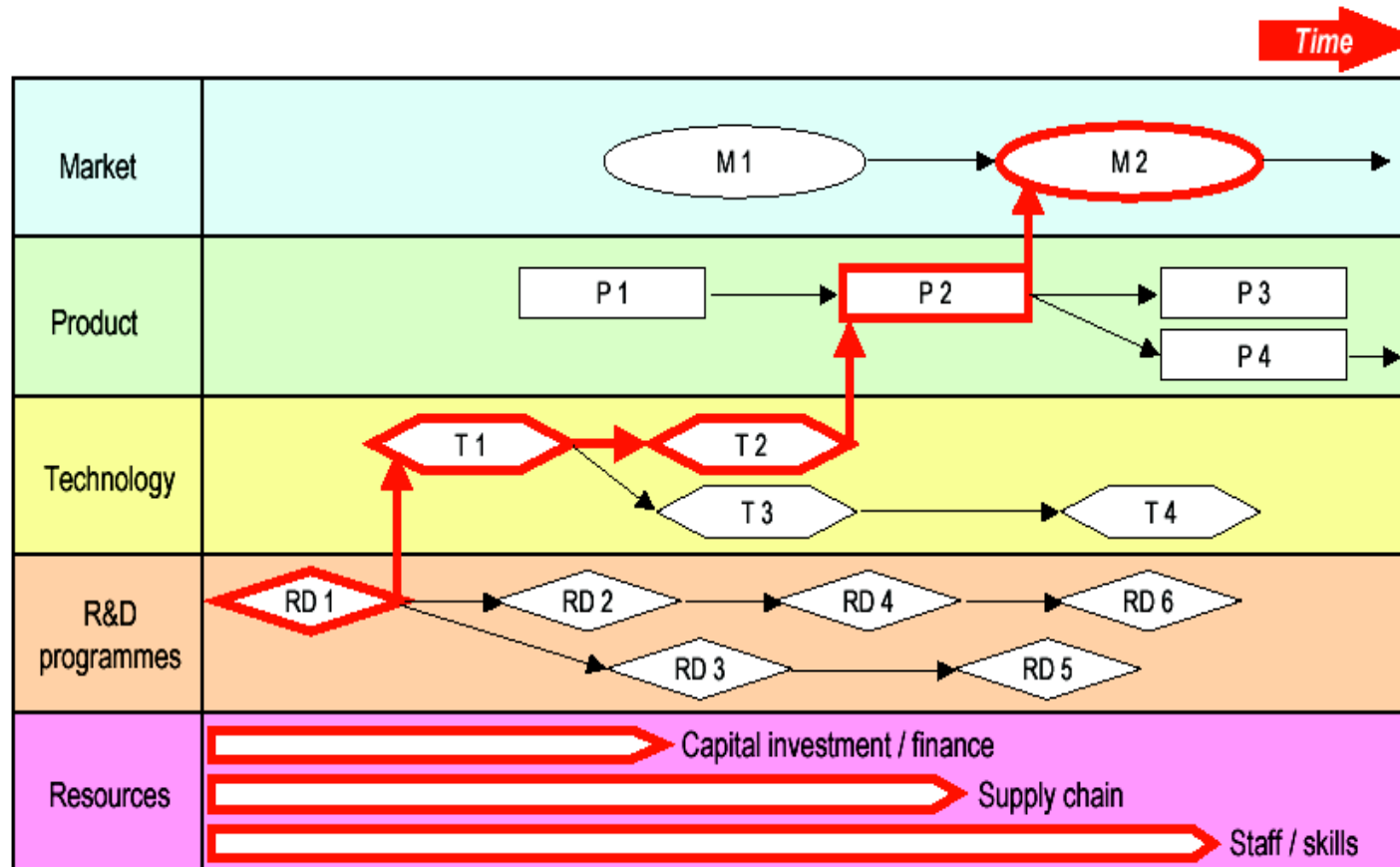
A systemic framework for methods



Technology Roadmaps (TRs)

- As a decision aid, roadmaps are useful tools for:
 - Strategic and operational decision making and action planning
 - Achieving a desired future state of development
 - Portraying structural relationships among S&T and applications
 - Improving coordination of activities and resources
 - Identifying, evaluating and selecting strategic alternatives
 - Communicating visions to attract resources
 - Stimulating investigations
 - Monitoring progress

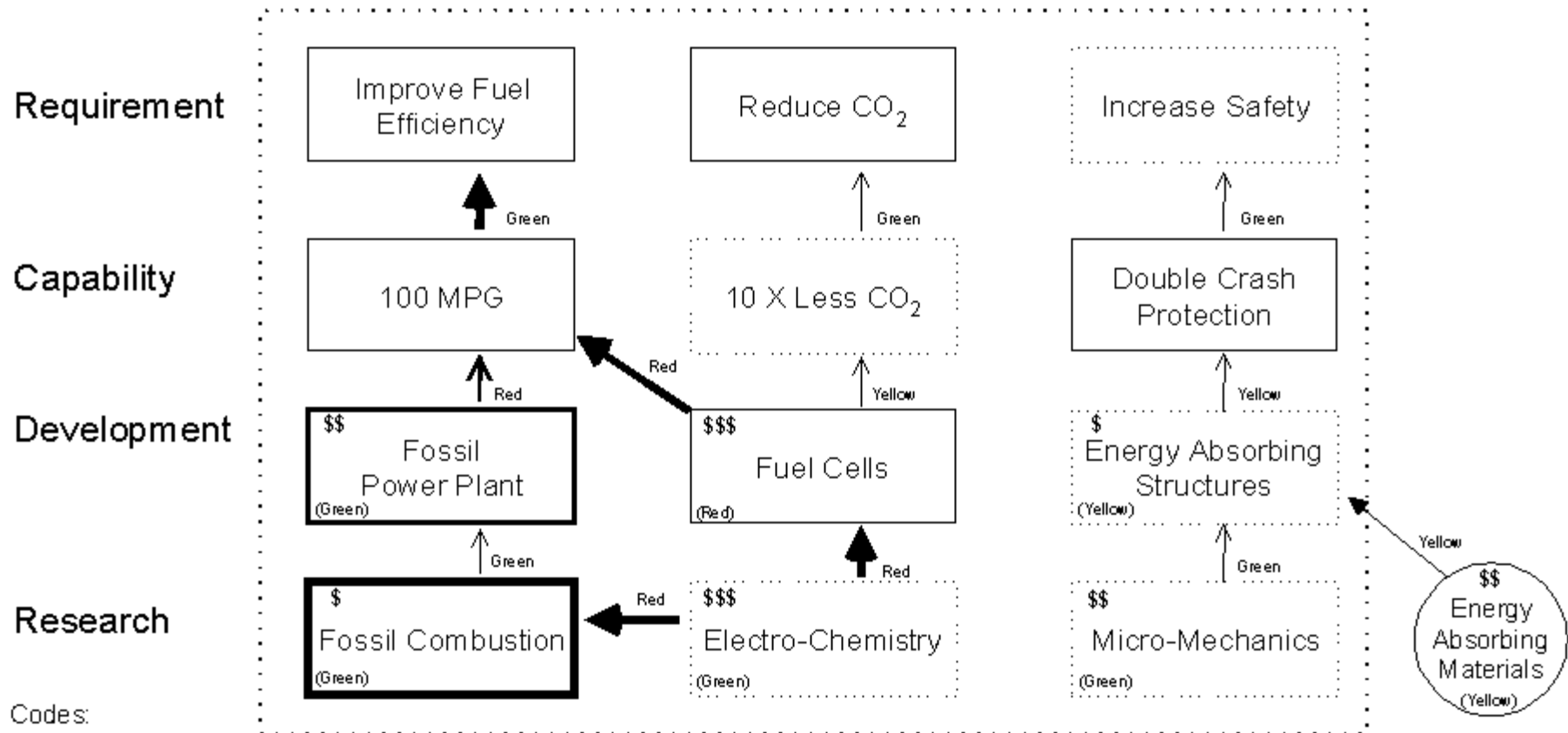
Architecture of a Roadmap



Phaal (2003)

Technology Roadmapping

Environmentally friendly non-polluting car



Codes:

- ➔ High potential impact of results from node A on attainment of objectives of node B
- ➡ Medium impact
- Low impact

Red, on link, is high risk that results from node A will impact objectives of node B

Yellow is moderate risk

Green is low risk

\$\$\$\$ - High cost program

\$\$\$ - Medium cost program

\$ - Low cost program

Red, in node, is high risk that node objectives will be achieved without external support

Yellow is moderate risk

- Adequately funded program
- Moderately funded program
- Under-funded program
- Unfunded, proposed program / proposed requirement or capability

- Internal program
- External program

Olive Oil Roadmap

	Now? (ALPHA)	RM	Then? DELTA (2020 & beyond)
Objectives and Goals	??? hectares of olives	<ul style="list-style-type: none"> - Draught resistance - Identify varieties with highest level of resistance - Understand their genetics - Apply this understanding to developing olive tree varieties that improved levels of resistance 	??? hectares will be cultivated in 2050
Innovation Support	Minimal support, which is insufficient	Making accumulated research results accessible for wider public including researchers, entrepreneurs, students etc.	Established national/sectoral innovation system
Partnerships	Informal and inter-personal partnerships exist	Nurseries and growers Universities Ministry of Agriculture	Staff dedicated to developing and maintaining partnerships and professional networks
Capabilities	There is an IP system, but it needs to be upgraded	Develop a capability to do GE needed to achieve the goal Intellectual Property Management	New service industries to support the sector (e.g. new service providers such as consultants including agricultural experts) New courses and degrees adapted to a new competitive sector
R+D	Breeding is known at the small laboratory scale	Apply traditional breeding techniques Increase the scale of the breeding techniques 10 Stations 2 Hectares each 30 Researchers Technologies to speed up the search and discovery process as well as tree growth	All traditional breeding activity provides potential for realising genetics technique
Institutional Framework	Barriers to the development of the structure of the sector	To study the situation and make proposals for the future	Major structural changes adapted to new economy