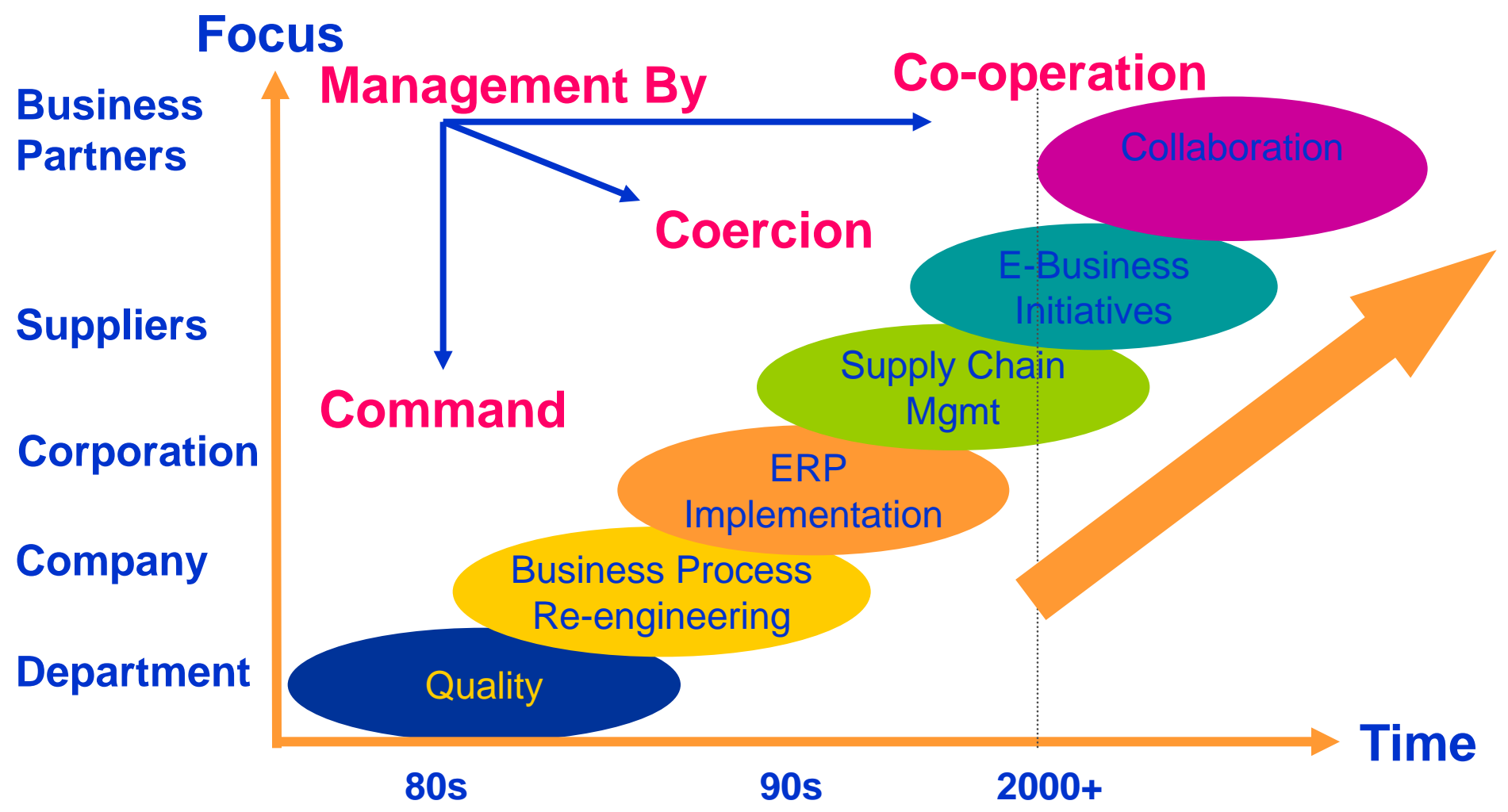


Optimization- it's role in enterprise profitability

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European Research Director
ARC Advisory Group



Evolution Of Management Initiatives



Challenge is to manage, organize & control, ever greater numbers of people, who are increasingly distant

Management Initiatives

Command

Issue	Quality	BPR	ERP
Pain	Variable Product/service	Right Sizing	Organizational incompetence
Metric	Six Sigma	Administrative Cost	Earnings per Share
Change	SOP's	Back Office	Corporate
IT Soln	Automation	Packages	Enterprise Software
Guru	Deming, ISO 9000	Hammer & Champy	Andersens, SAP
Slogan	Right First Time	Don't automate, obliterate	Staple yourself to an order
Hero	Guys in white coats	Change agents	Board level sponsor
Period	1990	1992	1995

Optimisation not a key management issue

Management Initiatives

Coerce

Issue	ERP	Supply Chain	E-Biz
Pain	Organizational incompetence	Stock outs, lead time	Dot com threat
Metric	Earnings per Share	On time in full	Market Cap
Change	Corporate	Planning	Procurement & Ordering
IT Soln	Enterprise Software	Packaged optimisers	Java
Guru	Andersens, SAP	Supply Chain Council	Negroponte
Slogan	Staple yourself to an order	Supply Chains compete	Internet changes everything
Hero	Board level sponsor	Ops Research	VC's Geeks
Period	1995	1998	1999

In SCM, Optimization becomes management issue

Management Initiatives

Co-operation

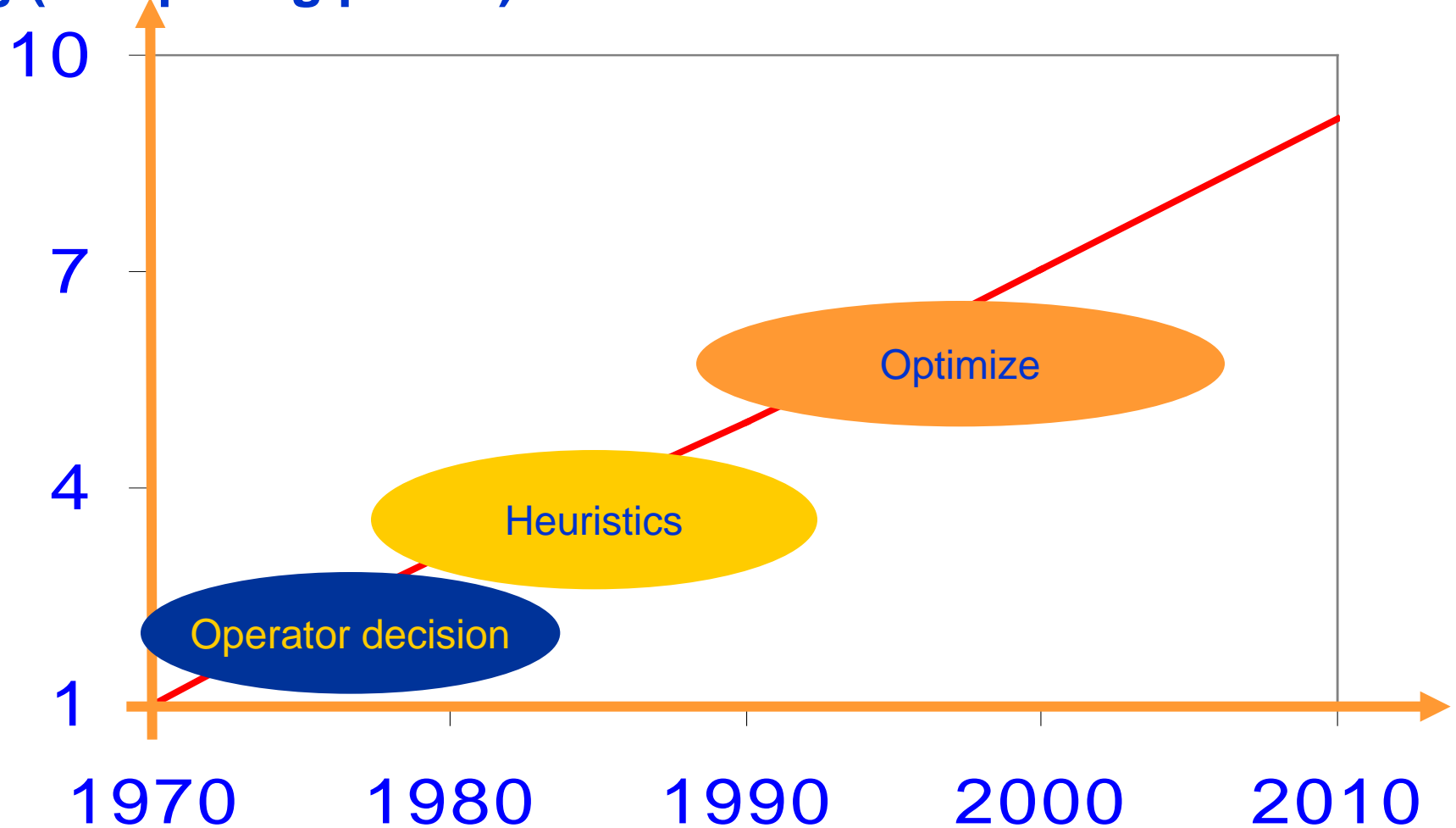
Issue	E-Biz	Collaboration	Optimize
Pain	Dot com Threat	Outsourcing	Globalisation
Metric	Market Cap	GAAP Profits	Profits
Change	Procurement & Ordering	Business Partners	Slick processes
IT Soln	Java	Standards using XML	Component Standards
Guru	Financial Analyst	RosettaNet?	To be announced
Slogan	Internet changes everything	We're partners	More from Less
Hero	VC's & Geeks	Industry consortia	Ops Research?
Period	1999	2001	?2004+

In SCM, Optimization becomes management issue



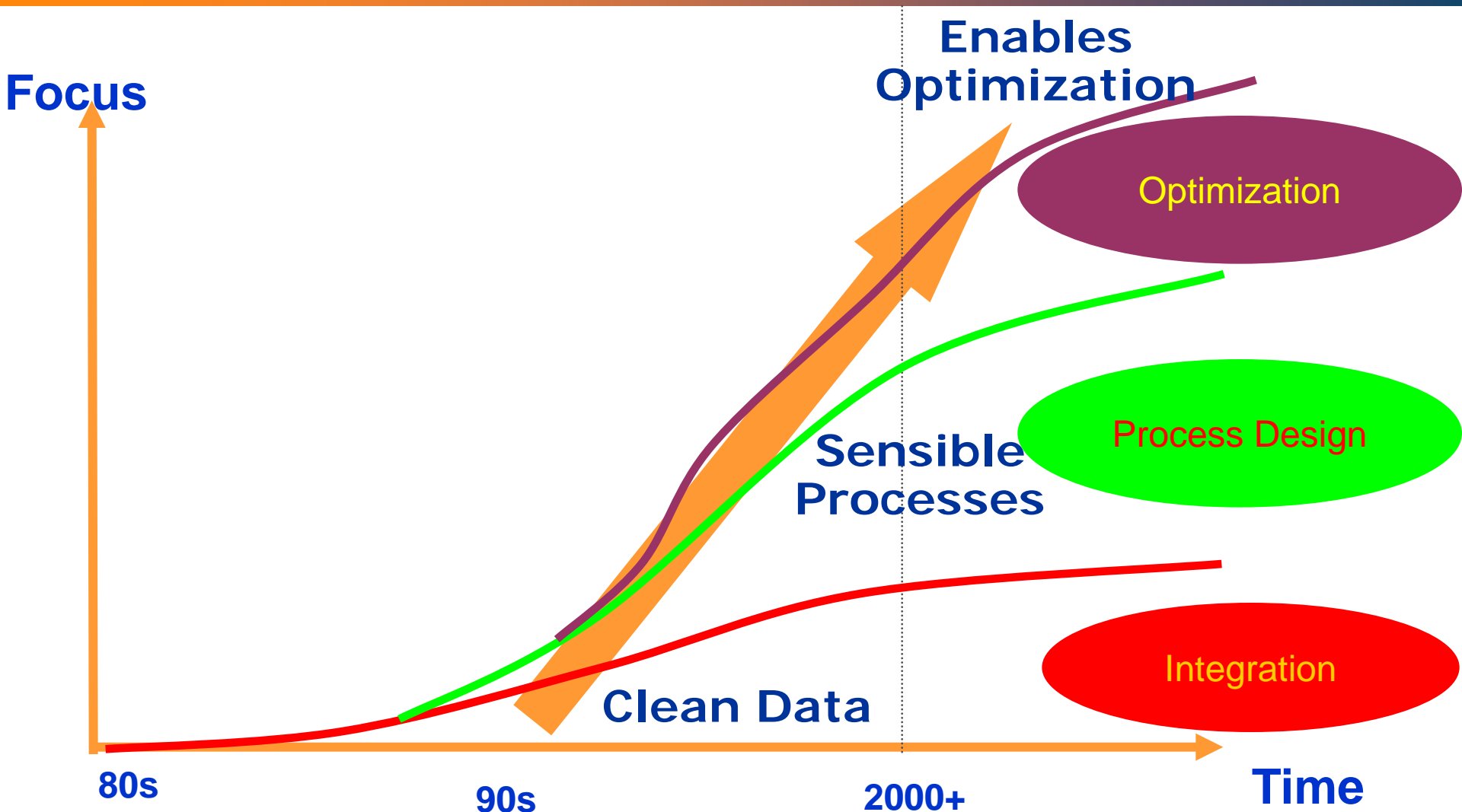
Evolution/adoption optimisation?

Log (computing power)



Computing power enables optimisation

Enablers for management initiatives?



The technology enablers for optimization to occur are in place.

Appropriate techniques

		Focus	
		External	Internal
Action	Optimize The Process	Forecasting/ Data Mining	Optimization
	Change The Process	Collaboration	Simulation

Improvement Strategy depends on the issue

Mathematical Programming Applications

◆ All Sectors

- Pricing
- Location of sites
- Product Mix

◆ Manufacturing/ Distribution

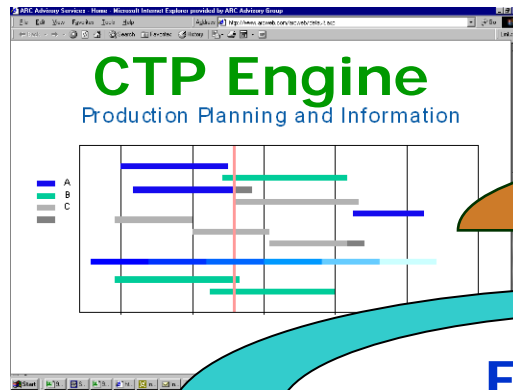
- Product Design
- Product Launch
- Planning/Scheduling

◆ Services

- Asset Liability Mgt
- Lease Arrangements
- Risk/Return

The Supermarket or the Bazaar?

- ◆ Higher price = greater profits
- ◆ Lower price = greater volume
- ◆ ~4% increase in revenue



Price List

Support

Suppliers

Enterprise Applications

Customers

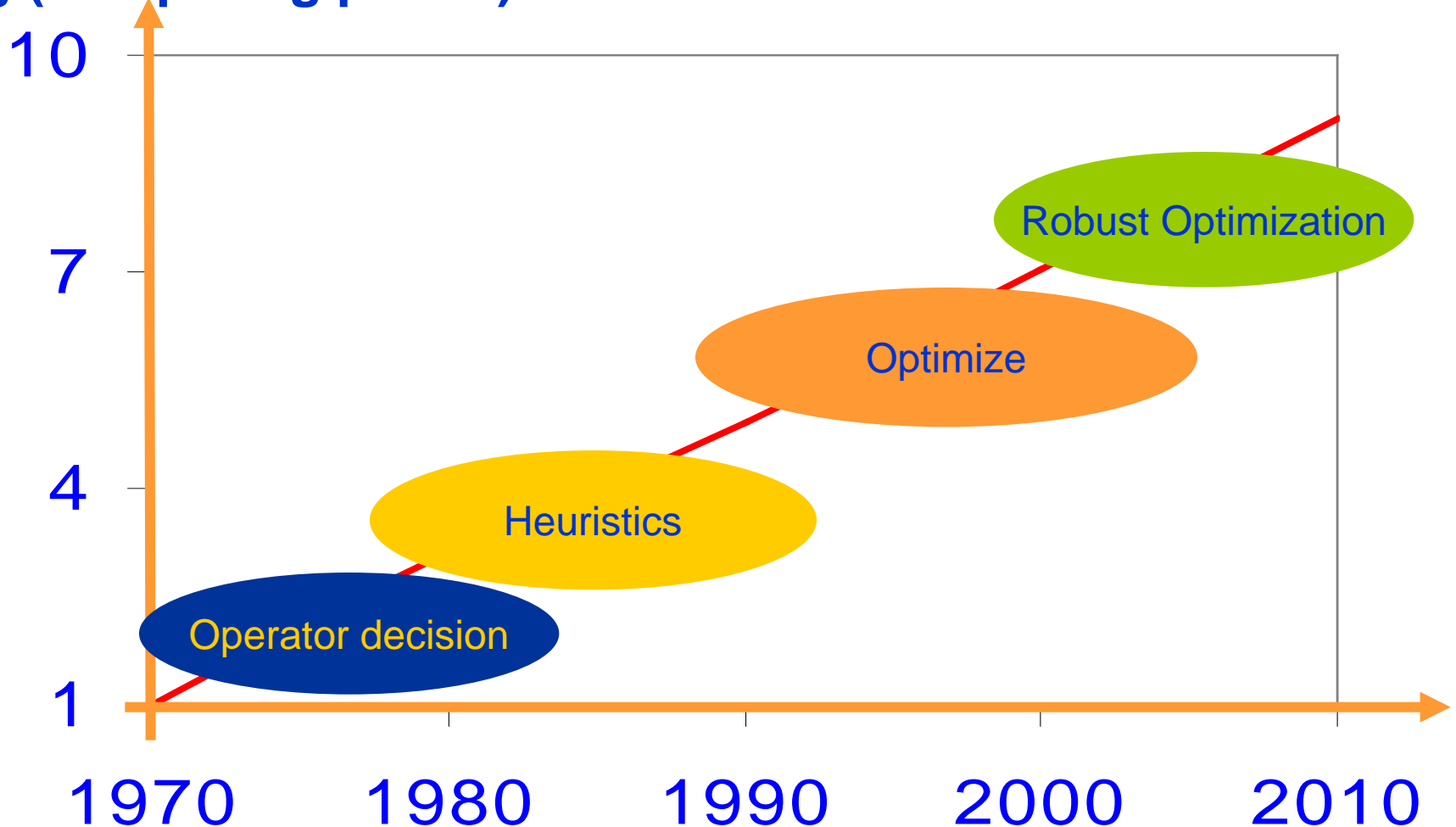
Design

No Application supports Pricing

Applies: Airlines, Hotels, Car Rental, Process industry, where high proportion of fixed assets

Optimization: Next Steps?

Log (computing power)



The computing power will soon arrive to enable more sophisticated optimizations

Conclusions

- ◆ **The enabling technologies are in place**
- ◆ **The number of potential applications are just limited by your imagination**
- ◆ **Optimization could unleash the next wave of value creation**

Thank You

Presentation available
at www.arcweb.com

THE END

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