Confronting Economic Regulation and Safety Regulation

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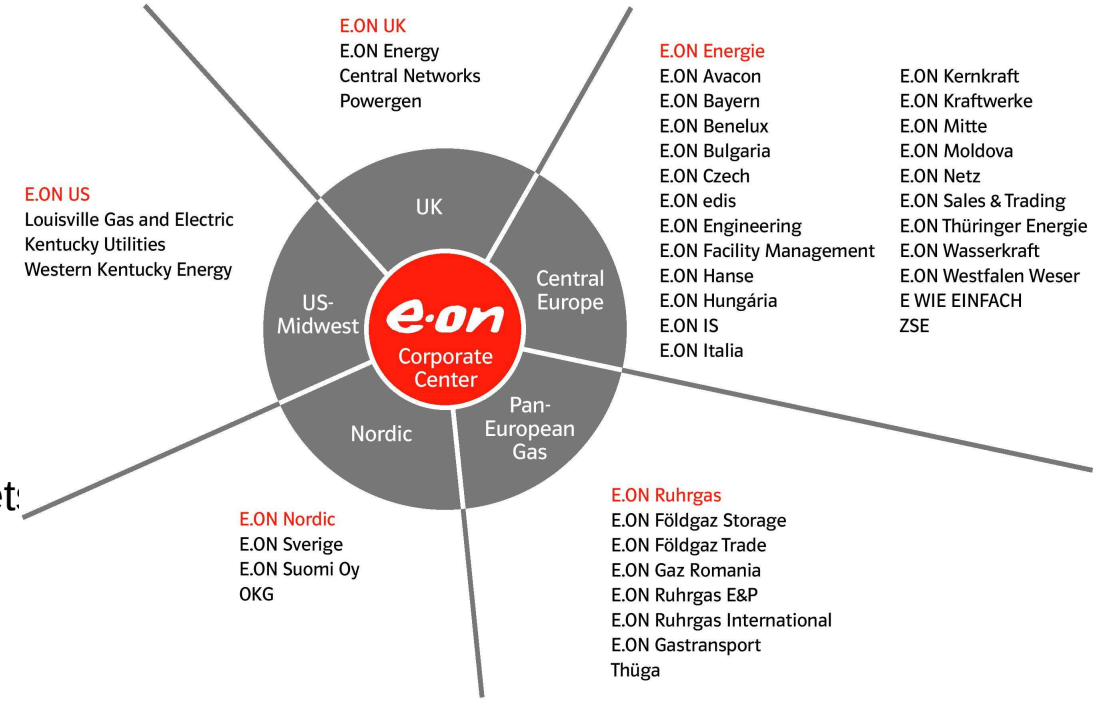
E.ON‘s Organizational Structure

3 Levels of Responsibility

☐ **Business units**
Operating management

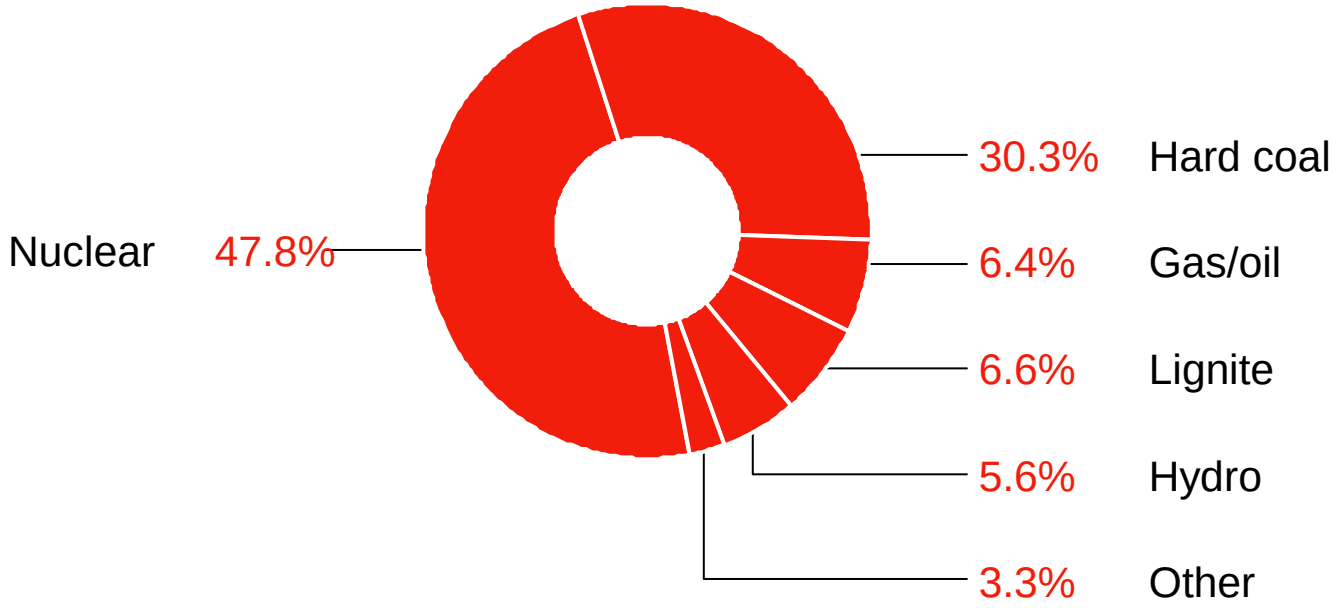
■ **Market units**
Integrated market control

■ **Corporate Center**
Group management across market



E.ON MU CE - Power Generation by Energy Source[1]

131.3 billion kWh
(proprietary generation)



[1] According to the 2006 financial statements

E.ON Kernkraft - Operating Figures 2006

Nuclear Power Plants: (6 managed by E.ON Kernkraft, 5 with minority stakes)	11*
Generation capacity (net. / incl. stakes):	8.525 MW
Power Generation (net. / incl. stakes):	67 Mrd. kWh
Availability of Nuclear Power Plants:	92,8 % **
Employees:	2.552

* In addition: Nuclear Power Plants Stade and Würgassen are decommisioned and currently being dismantled

** Nuclear Power Plants managed by E.ON Kernkraft

„Top Ten“ Nuclear Power Plants worldwide 2006 (gross generation)

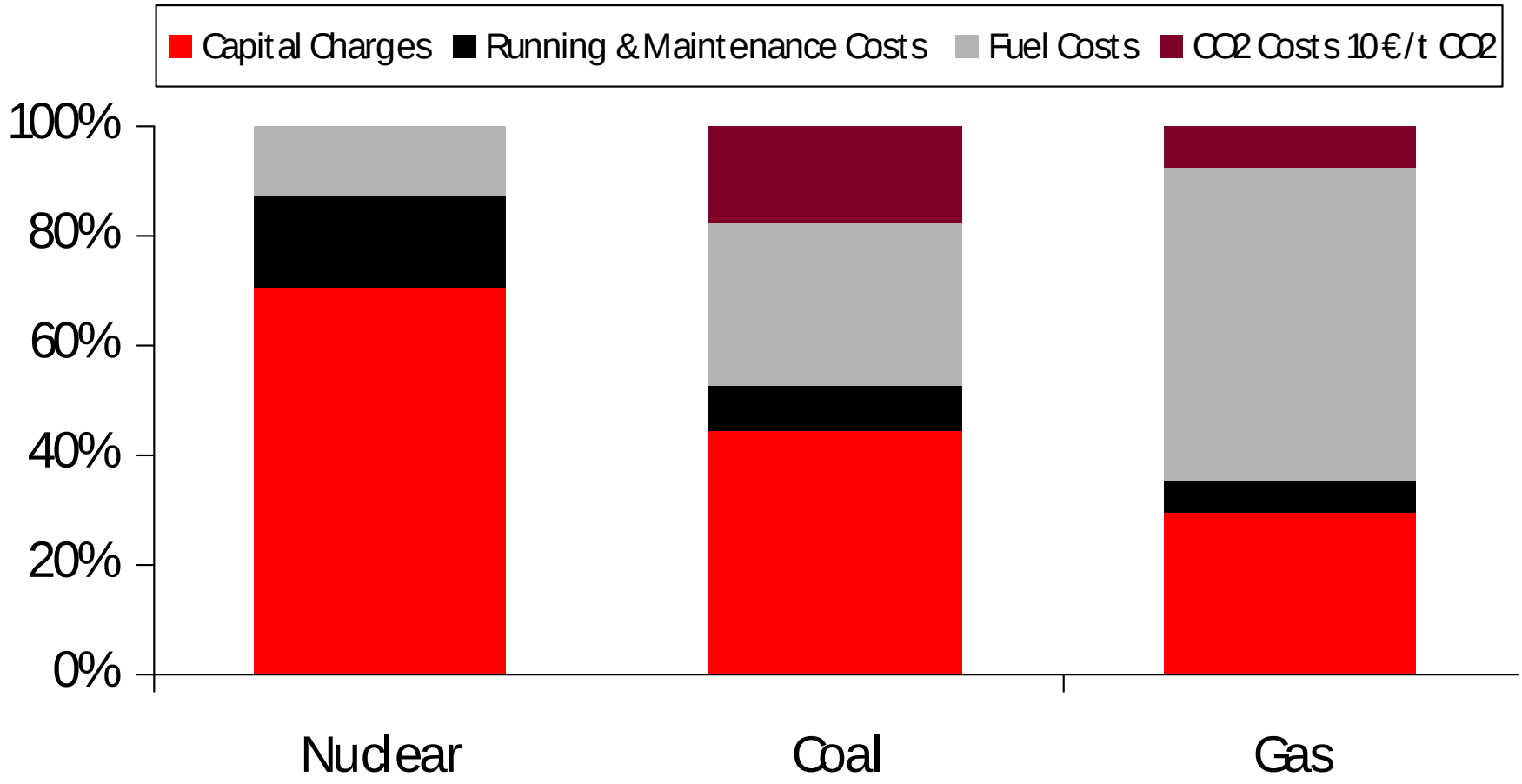
Nr.	NPP	Nationality	Gross Capacity (MW)	Generation (bn. kWh)
1	Isar-2	Germany *	1.475	12,40
2	Brokdorf	Germany *	1.440	11,78
3	South Texas-2	USA	1.333	11,76
4	Emsland	Germany **	1.400	11,76
5	Grohnde	Germany *	1.430	11,64
6	Civeaux-2	France	1.561	11,63
7	Neckarwestheim 2	Germany	1.395	11,62
8	Philippsburg-2	Germany	1.458	11,54
9	Grand Gulf-1	USA	1.320	11,24
10	Gundremminge n-C	Germany **	1.344	11,05

* EKK managed ** EKK shareholder

What do we need for a new build nuclear programme to be feasible?

- Established carbon market
- Sustained political support and public acceptance
- Efficient planning and licensing processes
- Acceptance of standard international designs by the national regulator

Generation Costs by Energy Source



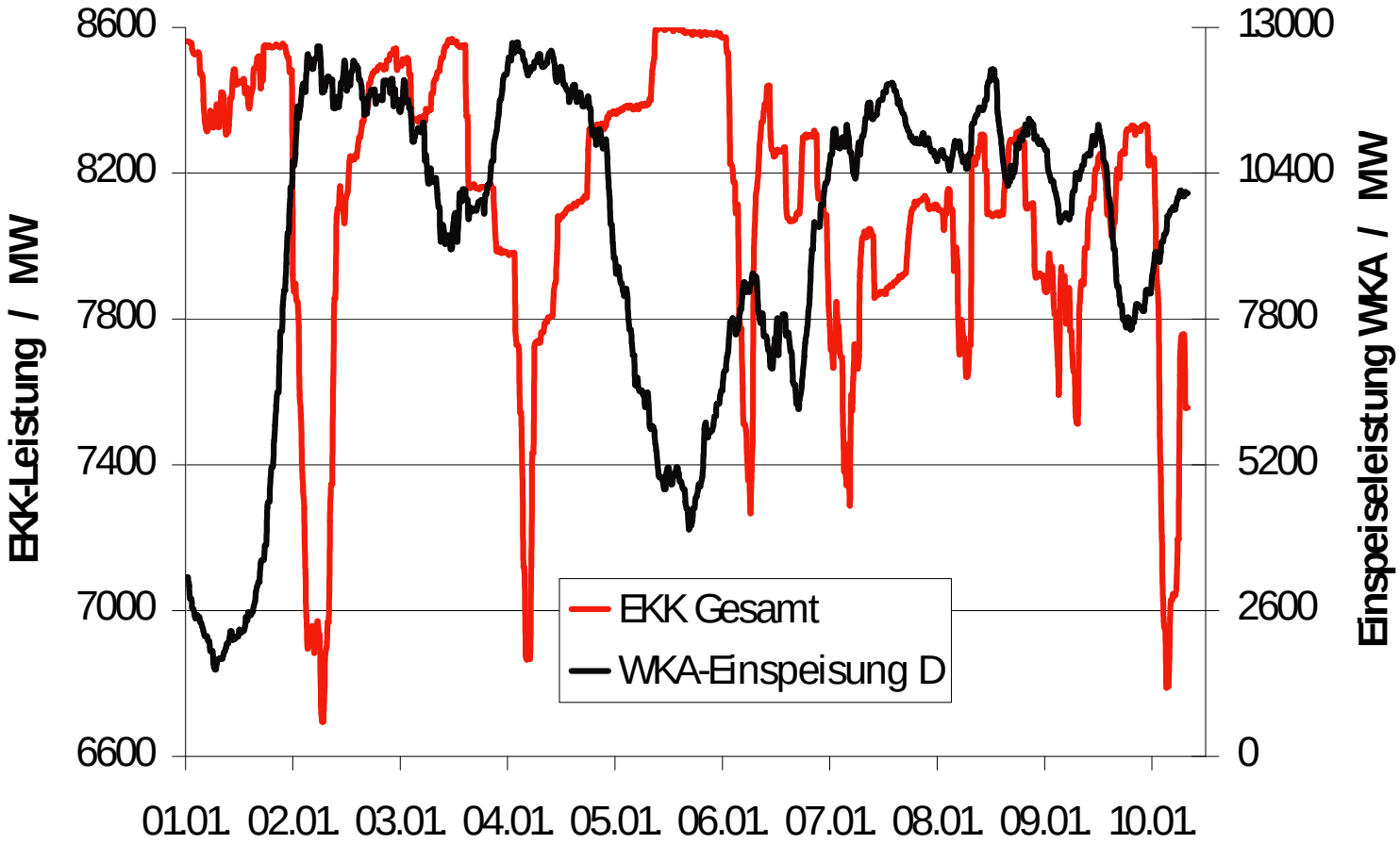
Source: E.ON Kernkraft

Consequences of Nuclear Cost Structure

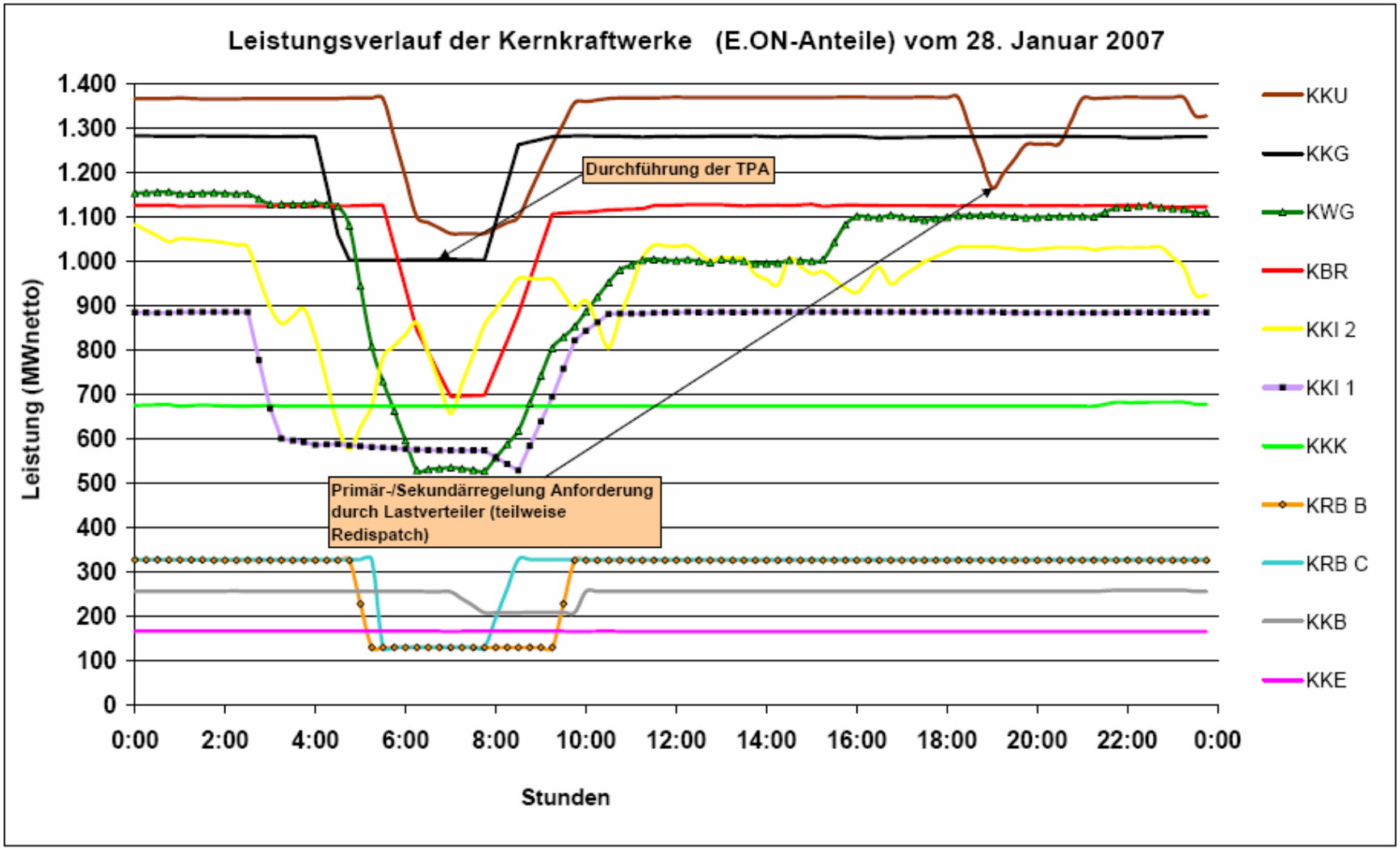
Threat	Opportunities
Delay of construction	Inexpensive baseload generation
Unplanned outages (high fix costs)	Independence on fuel price volatility
High capital costs in a volatile market	Independence on Climate Change measures

Source: E.ON Kernkraft

Operational Experience with Integration of Stochastic Wind Power Feed-in

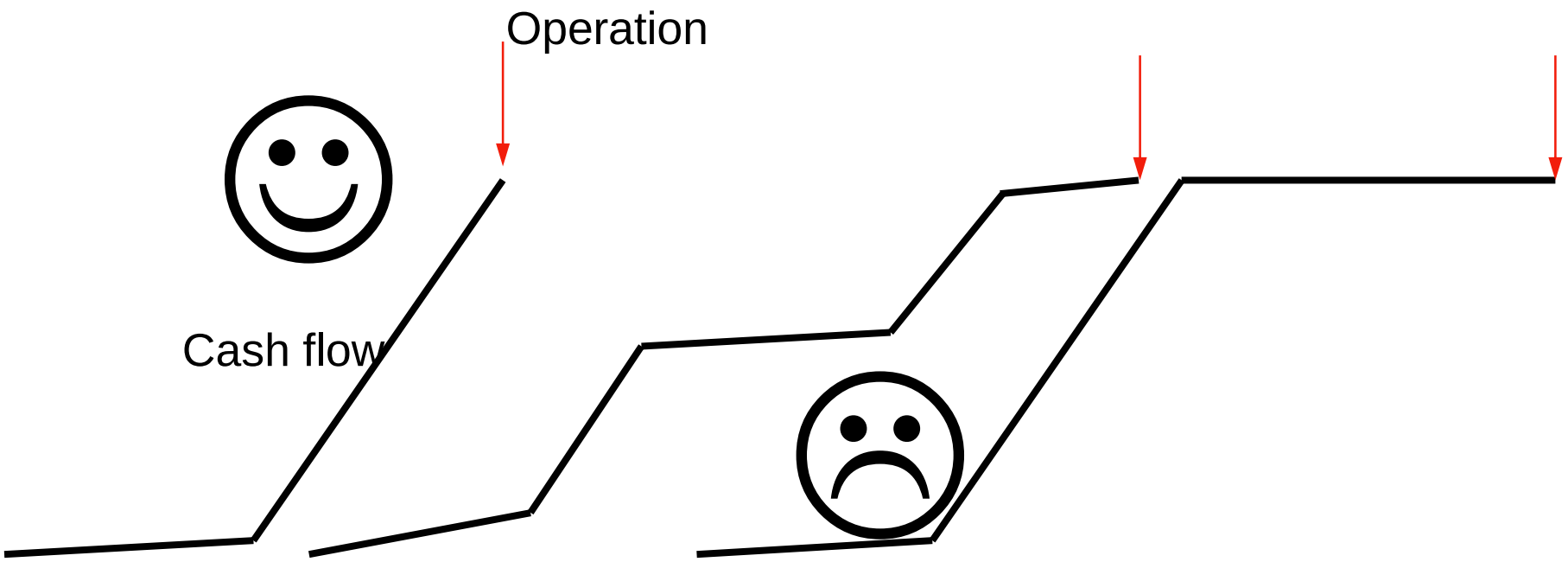


Increasing performance despite challenging



What’s the cash flow

- happiness is progressive licensing certainty



Driver for Capital Costs:

- Plant costs
- Construction time

Safety Regulation needs certainty:

- Regarding safety requirements (prescriptive vs. ALARP)
- Regarding licensing processes

Possible means:

- Vendors/Utility: Standardisation
- Regulators: MDEP

The Time is now for European & Global harmonization of nuclear safety

Nuclear is an international Industry

- Vendors are international organized
- Markets for NPP are international
- Utilities like E.ON become international organized
- Electricity markets are international
- Safety is a cross-border question

Governments and regulators adapt to this:

- IAEA –International Atomic Energy Agency
- WENRA –Western Nuclear Regulators Association
- MDEP – Multinational Design Evaluation Program
- AQG/ EU – Atomic Questions Group /Nuclear Package

International Industry Organizations Foster Harmonization:

- EUR – European Utility Requirements
- ENISS – European Nuclear Installations Safety Standards
- WNA