

THE URGENCY for a NEW ENERGY PARADIGM for ONTARIO

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**SIPwK Toronto
JANUARY 19, 2012**

**PREPARED IN CASE FIRST
PRESENTER DOESN'T SHOW UP**

HE DID NOT

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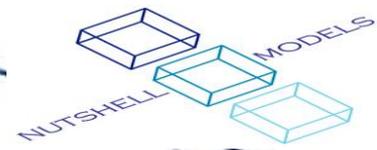
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plus

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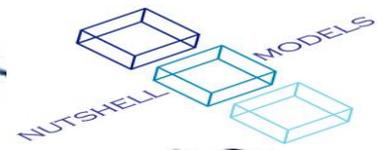


Ontario's biggest taboo... is ENERGY

...no politician will talk about it...

...too dangerous subject 'cause...

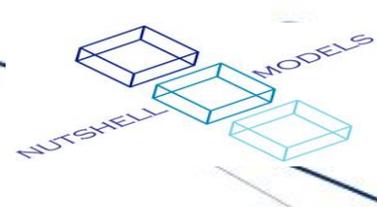
**...complicity of all three fairies:
Orange, Blue and Red
(soc's, con's and lib's)**



**When you talk taboos
it is one on one, off the
record, you lower your voice**

**So where to get all those
secrets...**

**Apply an old saying that the
darkest place is usually just
under the light!**

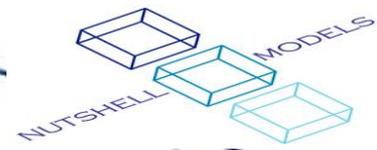


IESO: Independent Electrical System Operator

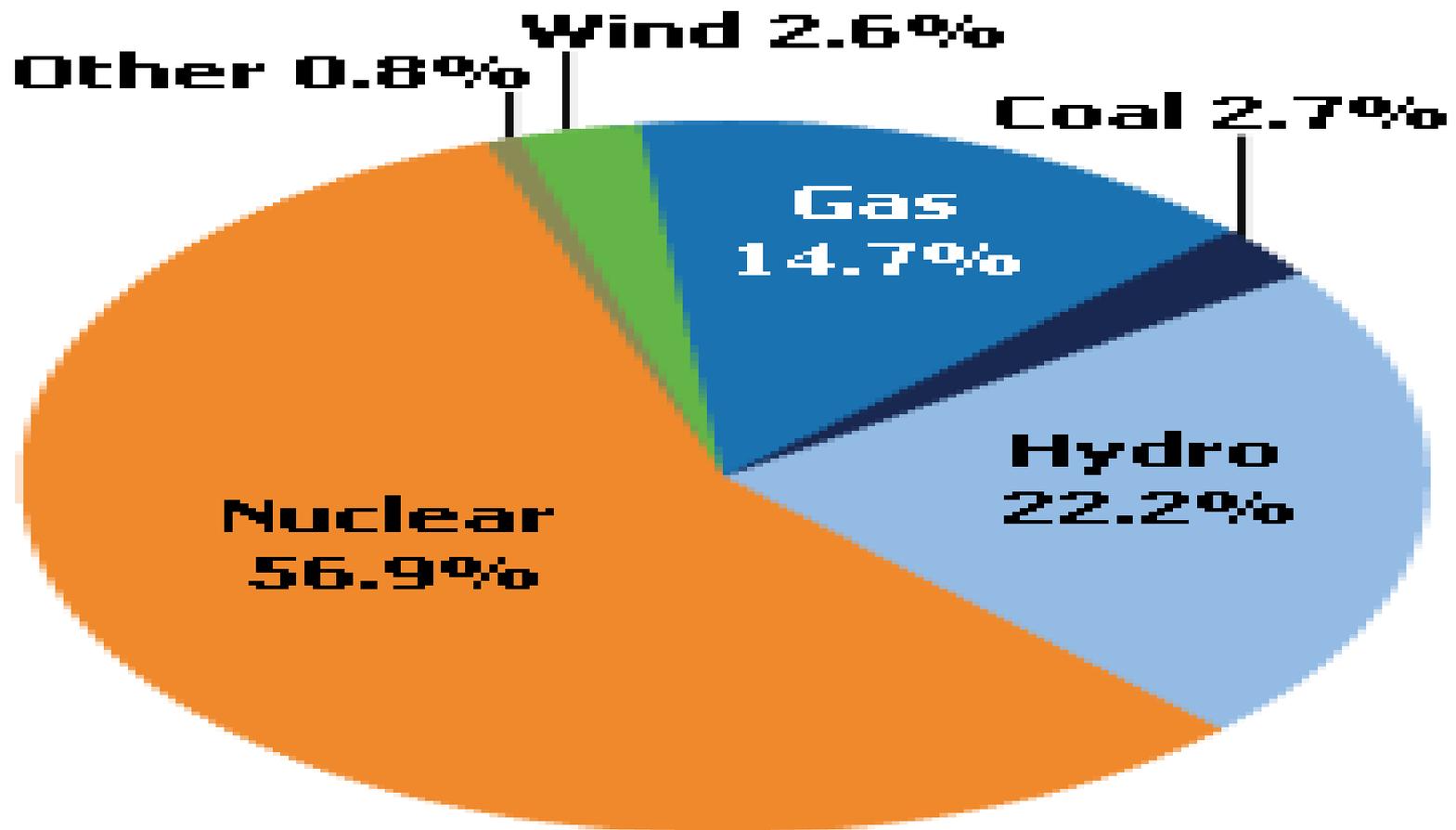
2011 data:

	Nuclear: 11,446 MW or	34%
	Gas: 9,549 MW or	28%
	Coal: 3,504 MW or	10%
	Hydro: 7,947 MW or	23 %
	Wind: 1,412 MW or	4 %
	Other (waste, biogas, etc) 122 MW	0.3%

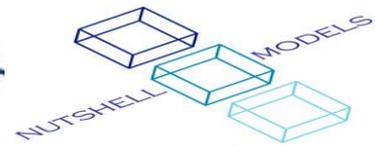
From IESO



Energy Output by Fuel Type (2011)



Ooops...

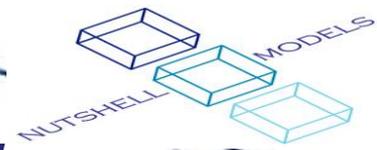


**We will clean environment,
get rid of coal stations.
Do not believe their share is
small...it is huge 2.7%!**

**We go green, building \$7bln
more, just a moment, who
brought that dirty gas?**

Fukushima

derailed greenest energy available...

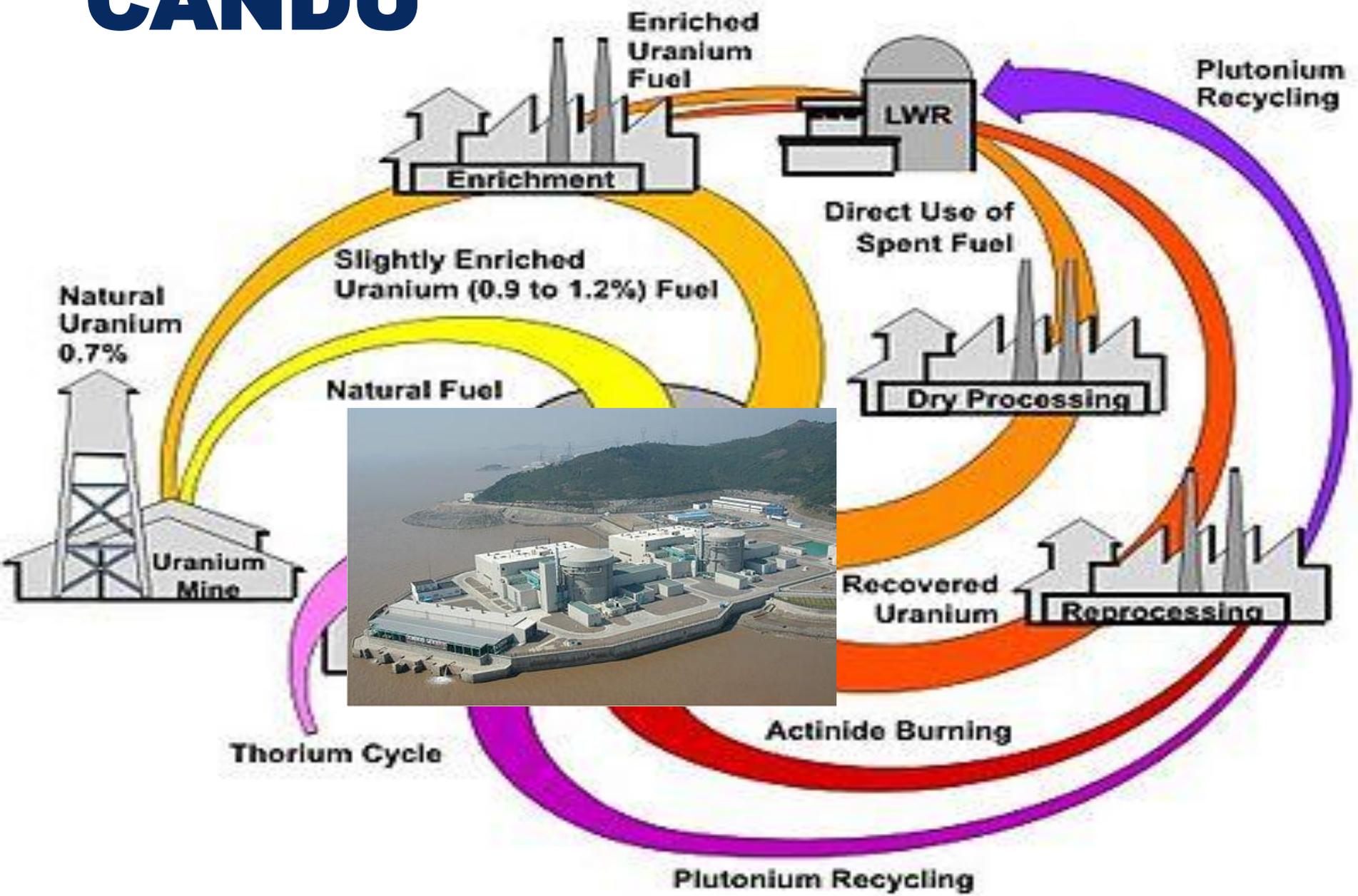


Satellite image on 16 March 2011 of the damaged reactor buildings

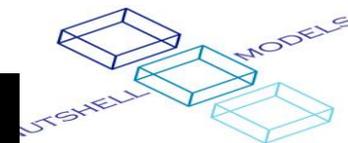


CANDU

NUTSHELL MODELS



Nukes got fukushimad woldwide...



**First Japanese capitulated...
Then Germans chickened out...
And why they always go over
budget, over schedule?**

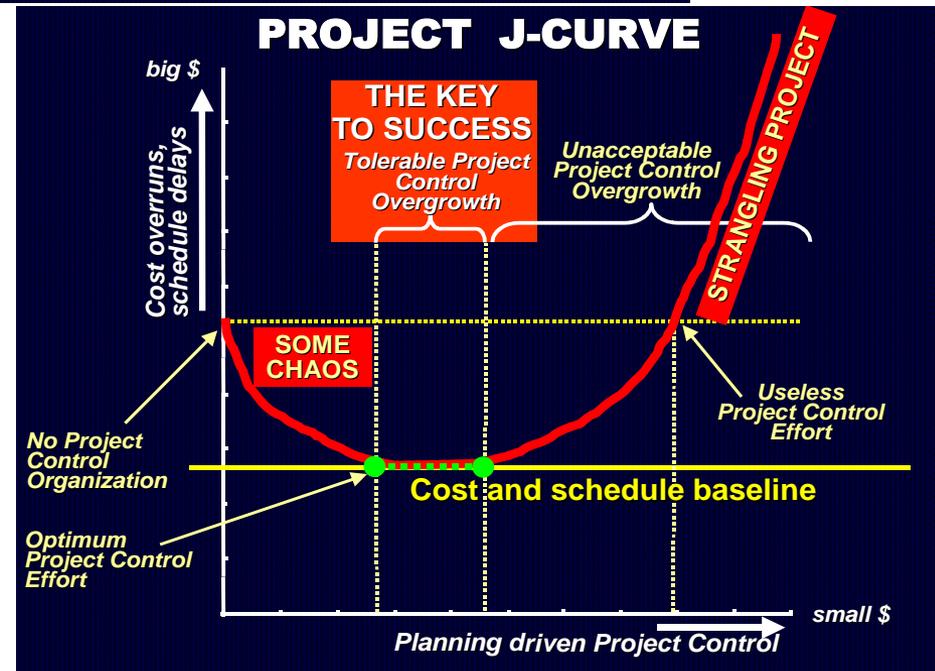
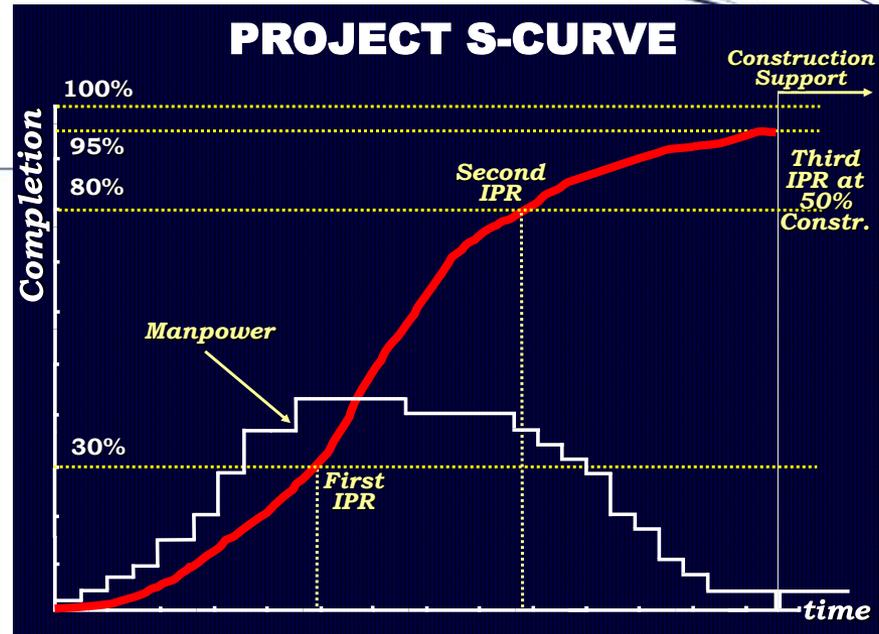
**Try project management...
try something closer to the best
oil/gas practices?**

Project Management

Used to be...
pragmatic
...survives on
small projects

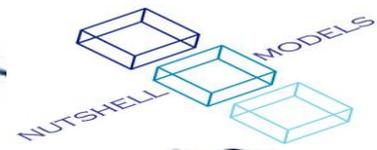
Is...
'catalogue'
..see also doctors,
lawyers, engineers...

Will be...
'E-word'?
(E=effortless)

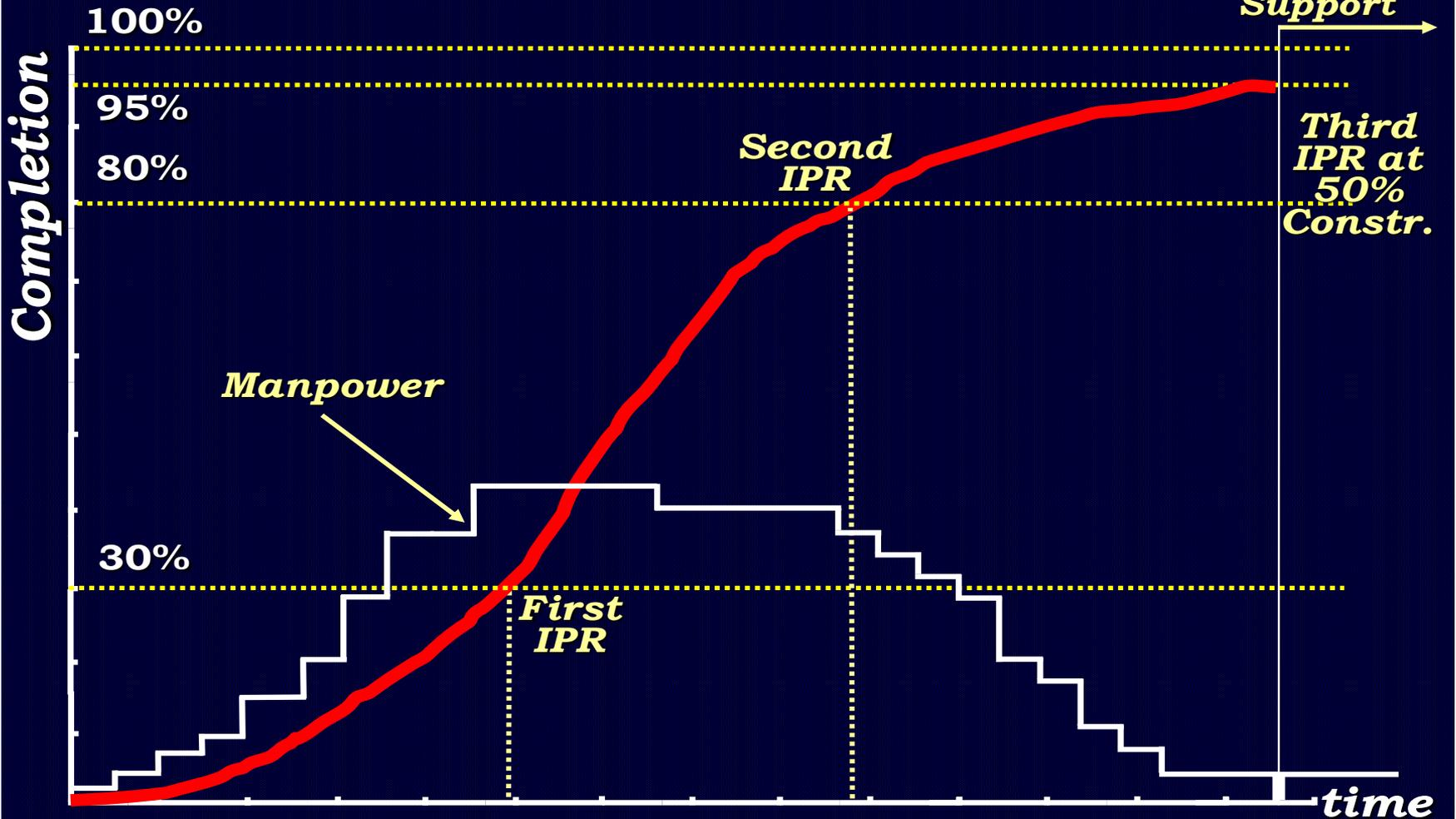


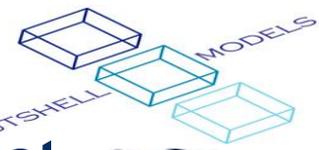
'S curve' of a project

Life before computers was simply...pragmatic



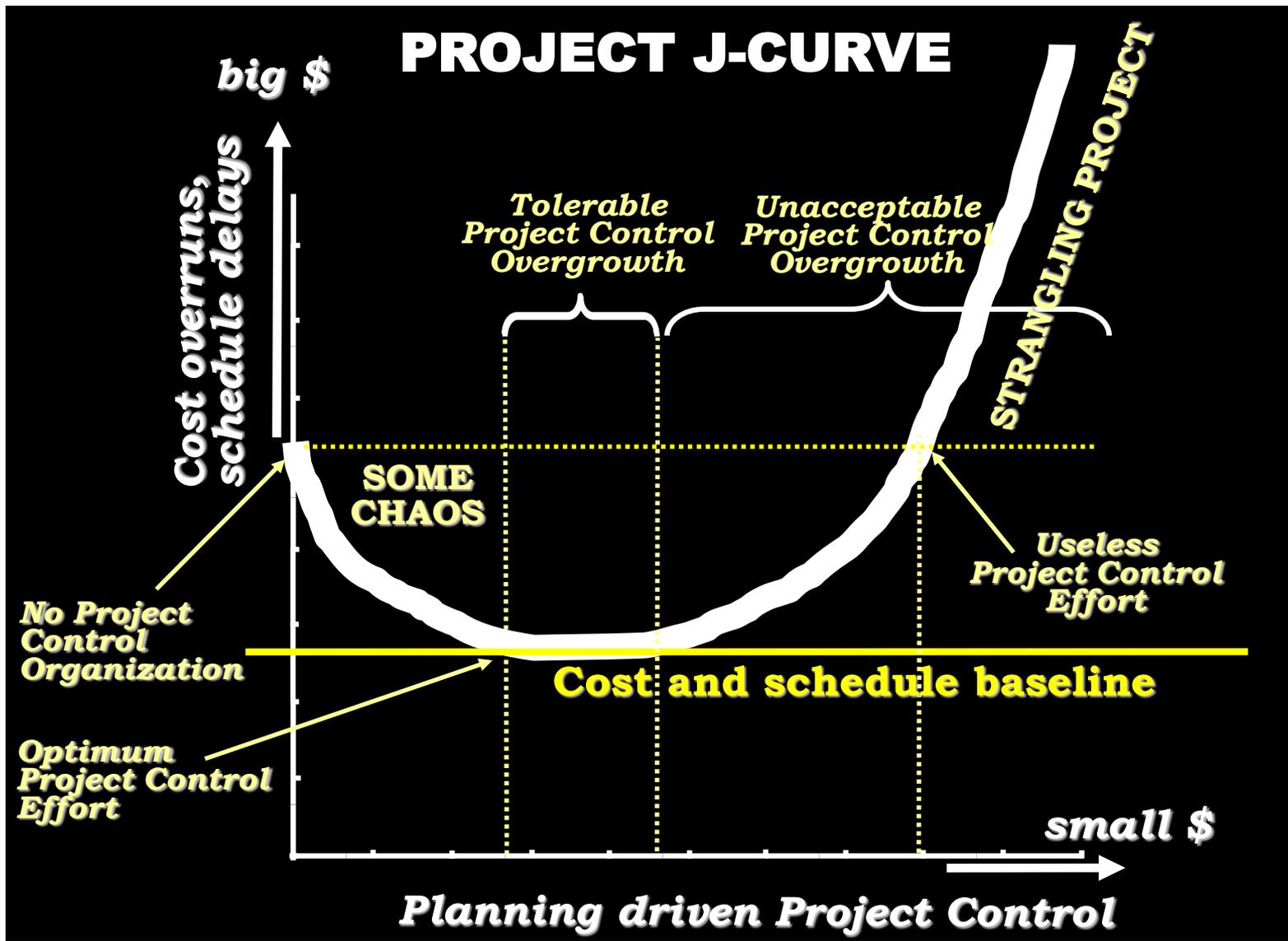
PROJECT S-CURVE



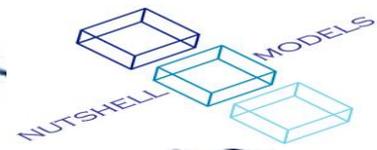


'J curve' of the larger project

Little (man-computer) things can strangle the project



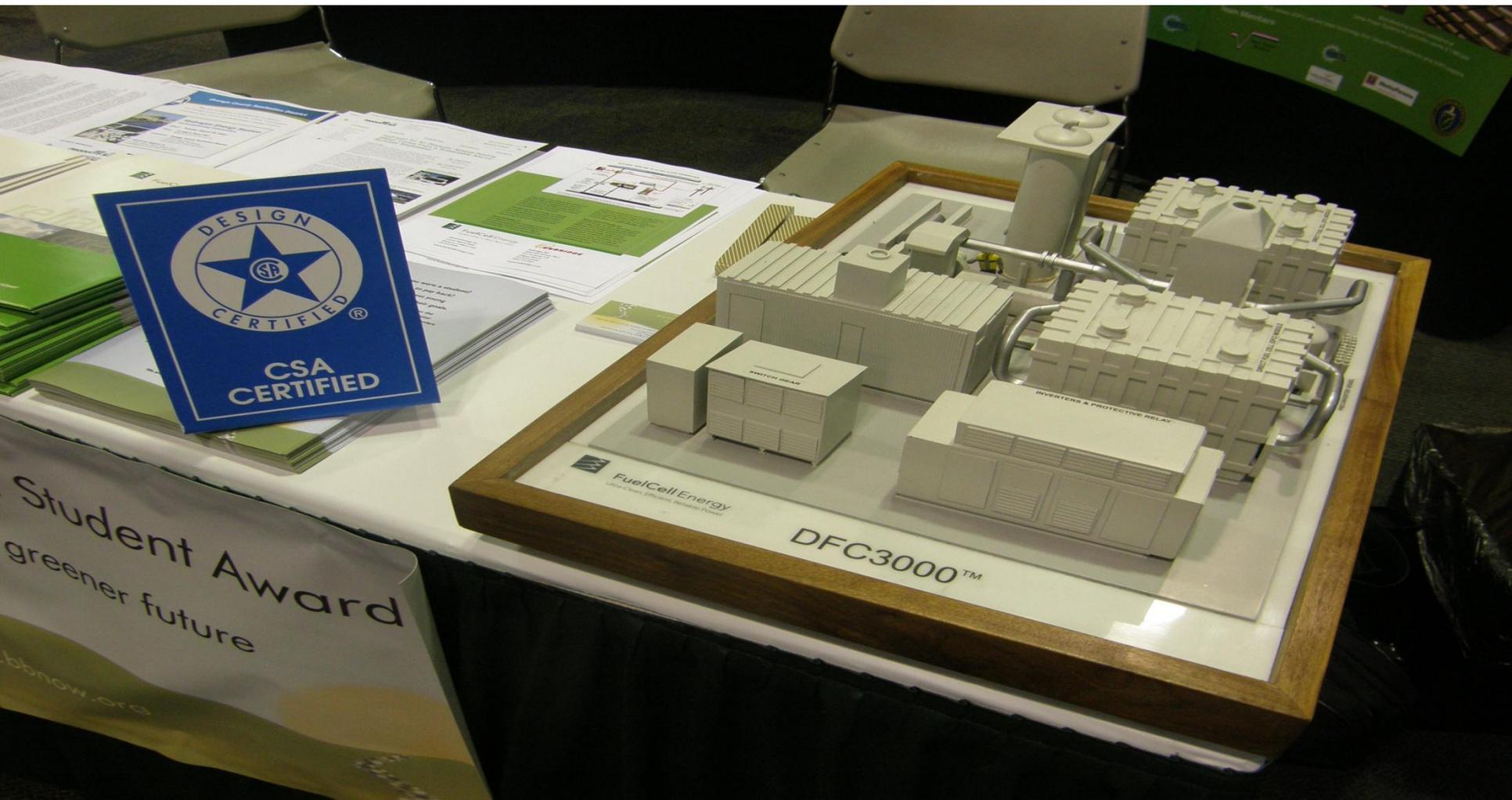
My life long hobby: resisting make-work complexity e.g.

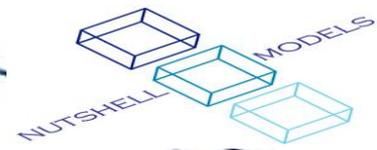


over-planning
over-estimating
over-scheduling
OVER-CONTROL

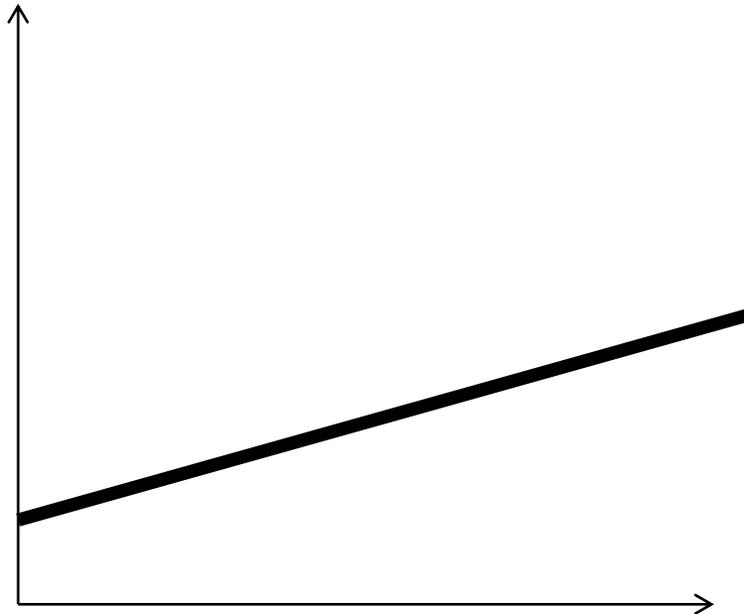
Power stations will go like computers...from central 'mainframes' to distributed...

FUTURE TODAY: 3 MW power station by FuelCell Energy



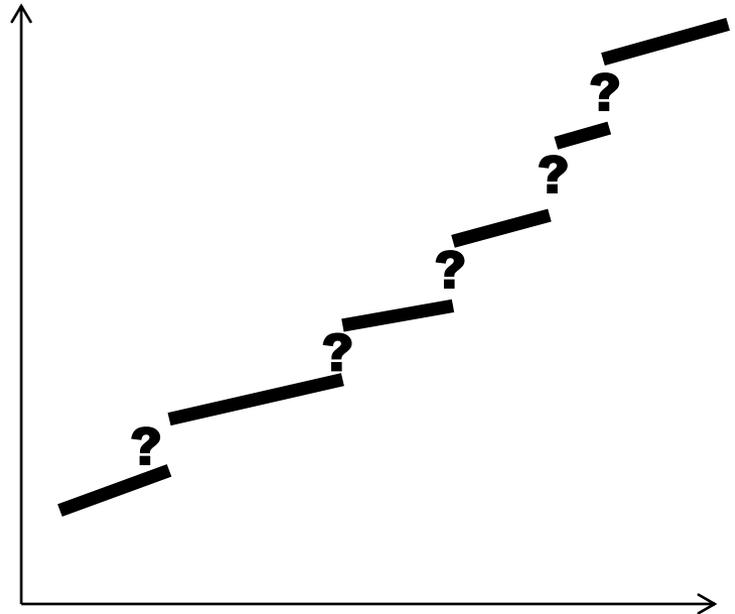


Linear



Typical plan

Linear, but

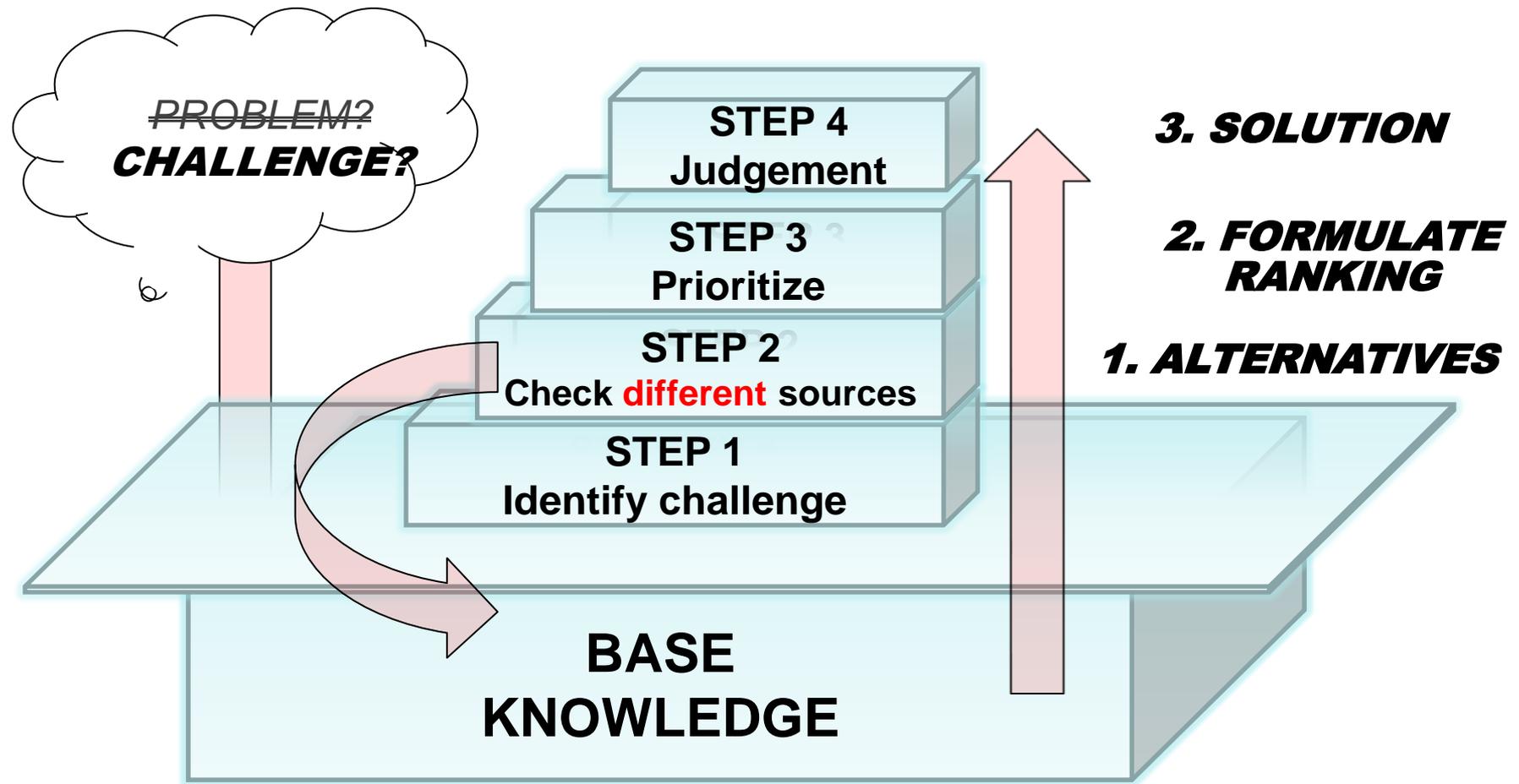


Typical reality

**Planning future of Hi-tech
always linear but...**

TRY TO USE **CRITICAL THINKING**

STEPS TO BETTER THINKING (IT DOESN'T HURT)



**Tackle ENERGY
challenges head on...**

**DON'T BE
AFRAID!**