# The ERC programmes and preparing a competitive StG, CoG or AdG proposal

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# Who am I, what am I doing here?

- Matt Staton – A Bigger Splash Ltd.

- Seen a lot of these – around 400 now

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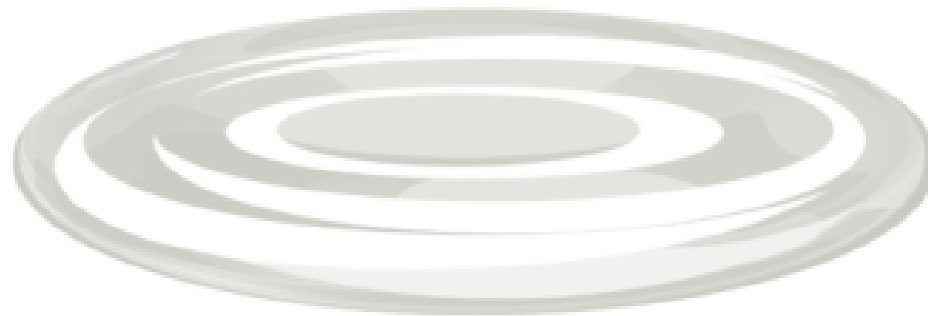
# What I hope to do today

- Describe some important characteristics

- Focus on some core issues for success

- Leave you with capacity to quickly plan project

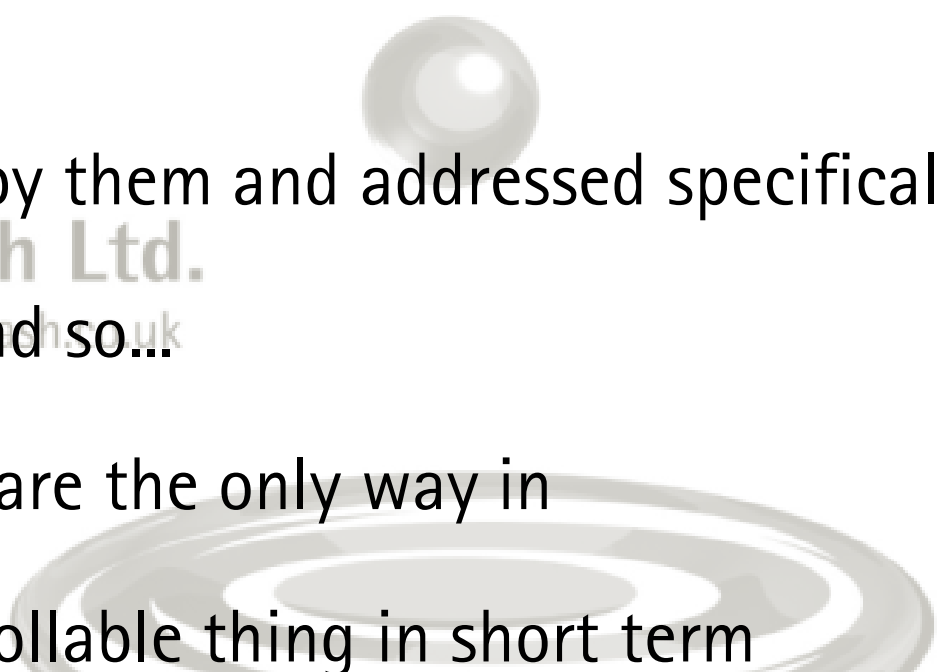- Important that we deal with all of your concerns too

# Overall strategy

- No politiking, lobbying, geography or juste retour

- Generous, flexible, lightly managed

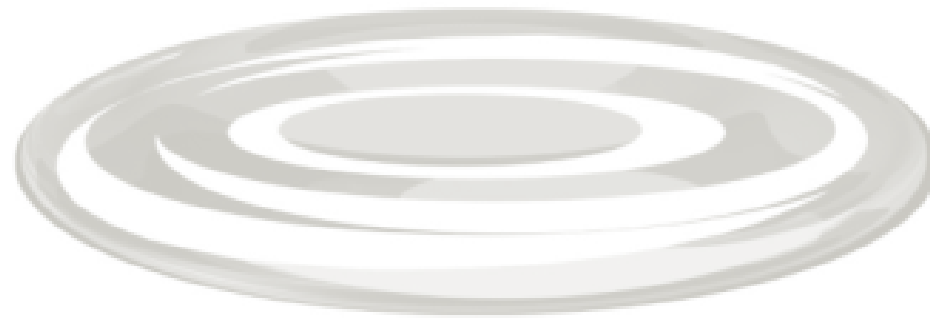A Bigger Splash Ltd.
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# Just to focus on 50% in 50 institutions

- Strong agglomeration effects in research and

- in EC funding too

- this is recognised by them and addressed specifically

- but not in ERC. And so...

- *Brilliant proposals* are the only way in

- and the only controllable thing in short term

- Smallish part of H2020 galaxy

- with a unique ecosystem
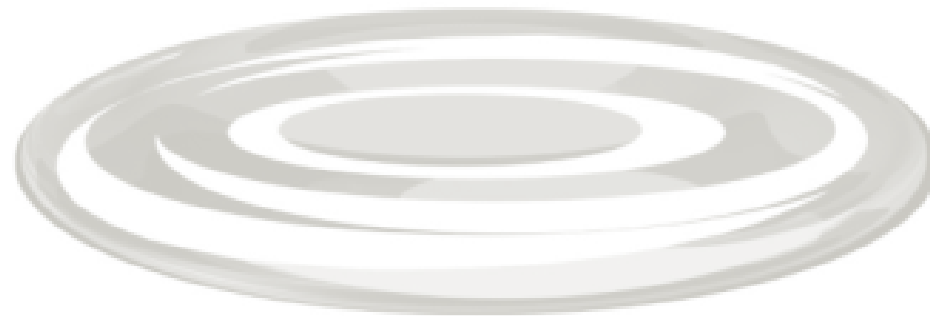
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# and here quick diversion

- To look at how people fail to pay respect to the vision

- in lots of quite elaborate ways

- and fail as a result
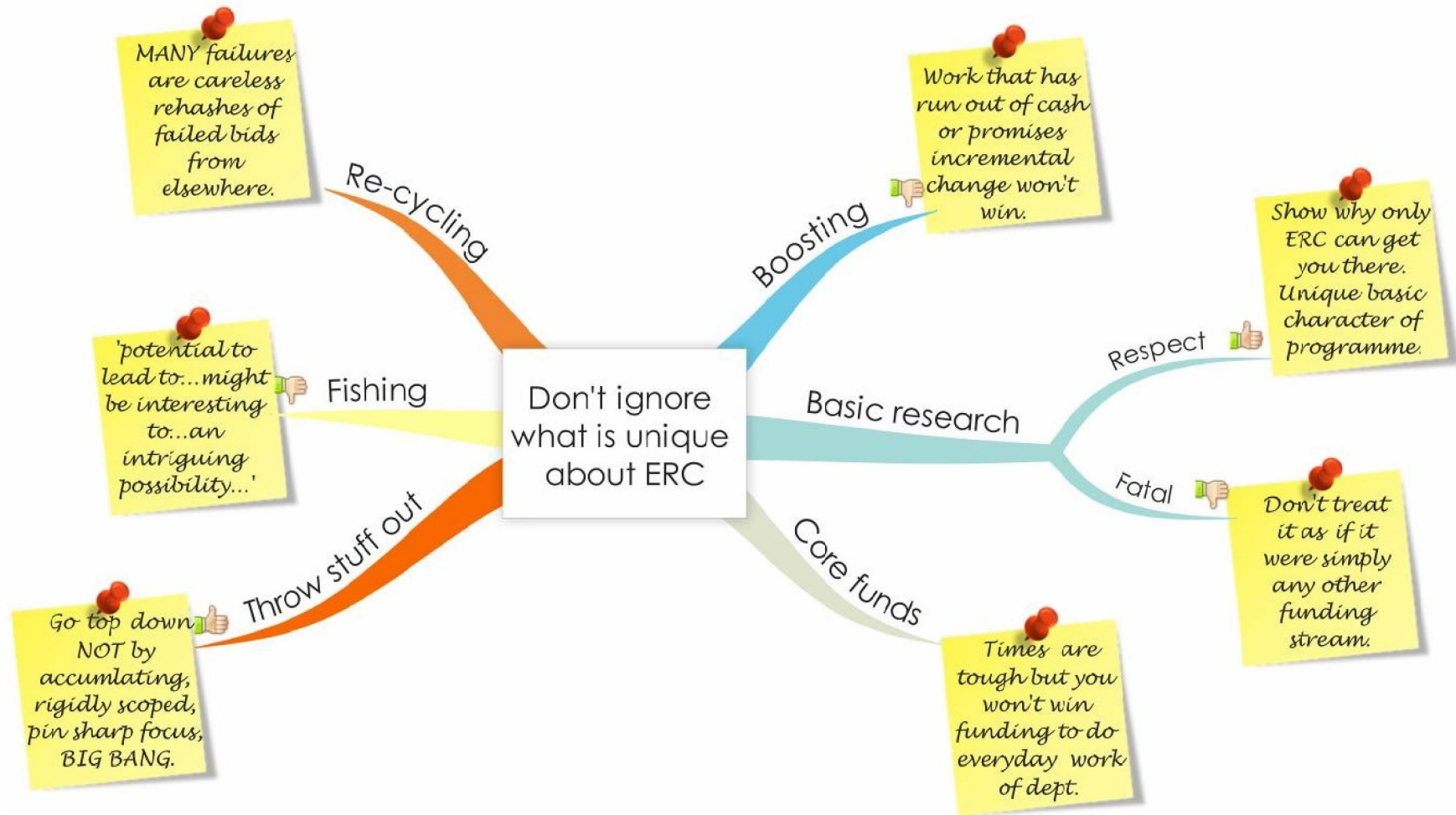
# Two distinct conceptual 'modes' at play

- Articulating them is major challenge in many cases

- but an important part of the construction work

- and commonly they get quite mixed up

- and also helps us see that the pitch must be phased

- i.e., speaking interestingly to non-experts at front

- phasing into real technical detail as the work develops

# Top parts are different from bottom bits

- The first sections are the 'why' questions
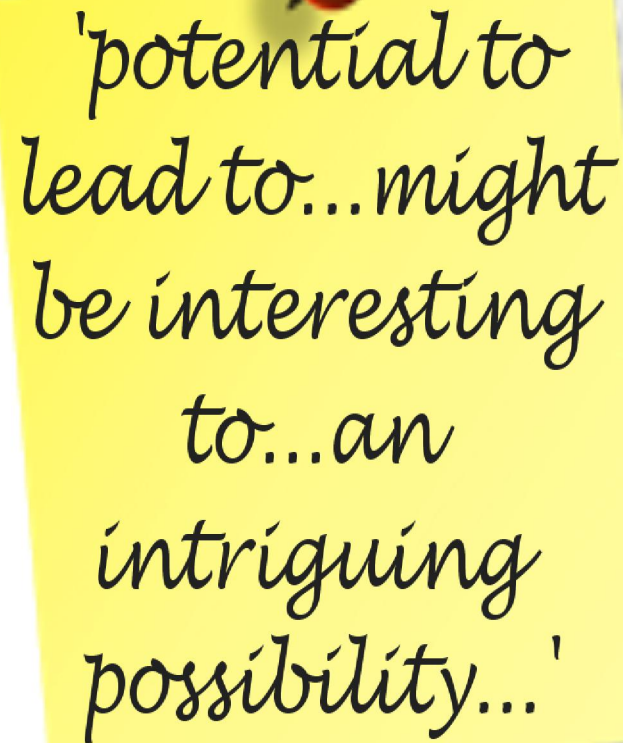
  - objectives, breakthroughs, benefits, why better than rest etc.
  - i.e., the stuff they are BUYING

- and this is an *inductive* argument

- i.e., sets out with conclusive statement

- and marshalls 'evidence', grouping ideas

- pointing at a general conclusion that is *probable*

- It is a highly persuasive way if done well

# The methods and results are 'simpler'

- They are hypothetical-deductive arguments

- and are 'home territory' for most scientists

- mainly using deductive strategies, tropes and tactics

- it is expert-to-expert style of technical information

- intended to be valid and provide

- guarantee of truth of the conclusions

- ideally it aims at categorical truth

# Problems arise...

- When the two get confused
- when methods and processes and results (what/how)
- are put in the selling sections
- and the persuasion stuff is missed out
- There is a change of mode at half way
- must be a flow not a fracture here
- we must group up ideas and sell probabilities
- backed up with methods to provide proof
- *Not an easy balance*

# Perfectly legitimate way of work

- But increasing rare in competitive public funding

- perhaps rare anywhere, from another age...

- But ERC is basically 'objectives-oriented research'

- driven by ambitious statements of end points

- and so best thought of 'backwards' from there

- as we'll see later.

# Supporting only particular types of life form

- perhaps only place any 'mode 1' exists at EC

- i.e., motivated by knowledge alone, not application

- and recognisably disciplinary

- 'mode 2', context driven, problem-focused, multi-discip

- dominates in H2020

- don't confuse the two
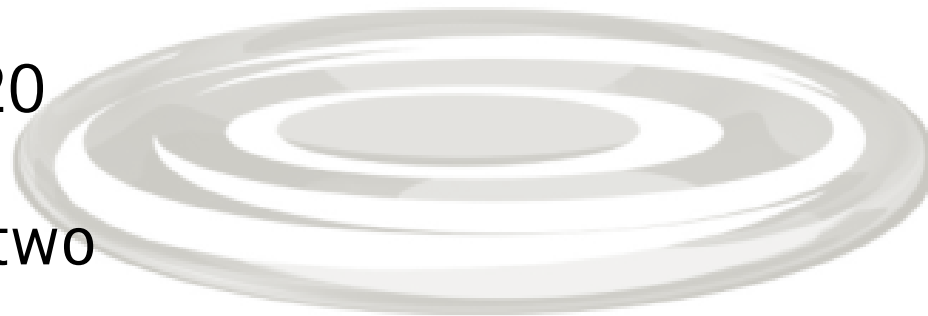
- PI driven, 'heroic' individuals blazing trail

- Excellent, innovative science in any field

- Chance to dream, a little at least

- Lightly managed

- Fair, if intense, competition
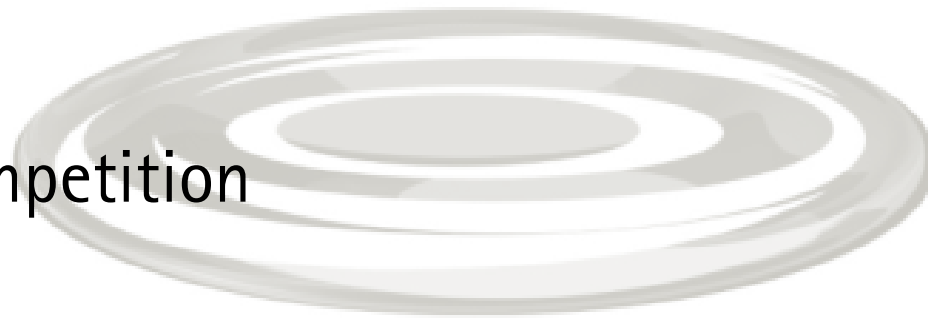
- Fantastic opportunity and highly prestigious!

- Can be won by any eligible, determined candidate

- with a _professionally_ presented proposal

- well sold good will beat badly sold brilliant

- tough, yes, but perfectly possible!

- from anywhere...including from here, from your seat...

- 'And therefore never send to know for whom the bell tolls; it tolls for thee.'

# Ignore distractions, excuses ,displacements

- It is for the poor, it is only for the rich
- It is only for these institutions or countries, not us
- It is only for the most senior
- It is only the most brilliant who'll win
- I don't understand it
- I don't have the time
- It's fixed
- It's a lottery
- It's a mystery
- It's not for me...
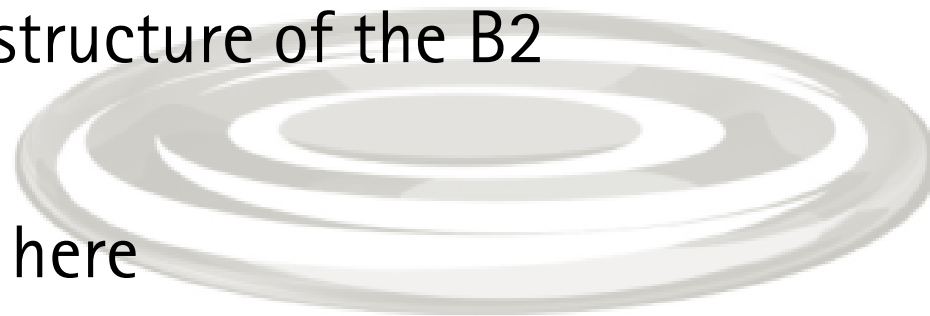
# Develop your objectives-oriented proposal

- With an idea of the right kind

- and as an eligible candidate

- I find this is a very good idea to

- Simply follow the structure of the B2

- So, this we will do here
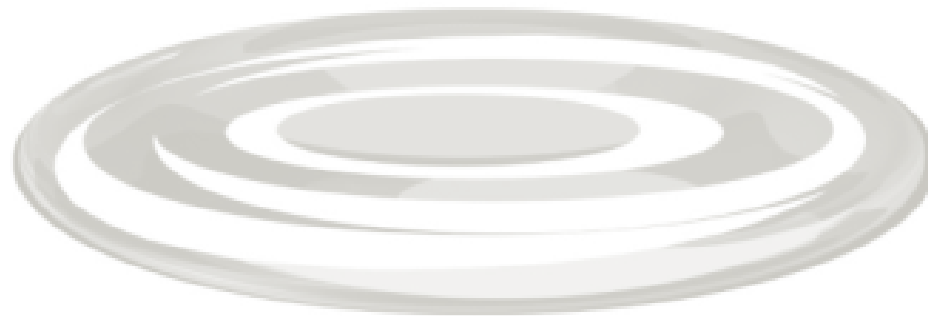
# But first another diversion

- These are VERY common mistakes that people make

- So let's set off in the right direction

- and not fall at the first hurdle

**Very common simple mistakes**

Limits — *Shorter than maximum is better, short is best, crystal clear ideas are simply stated.*

Go or not — *Look at rules, don't fight if you can't win. STOP, wait and build.*

Focus — *Is 'I' not team & about THIS project not general research interests.*

No difference — *Put work in context V. QUICKLY and focus on what DIFFERENCE it will make.*

Concepts — *Use theirs. Eg. 'objectives' not 'interesting research topics', 'hypotheses', 'ambitions' etc.*

Rules
- Letter — *Jump through ALL hoops even if v. strange and repetitive.*
- Spirit — *Is about high risk/high gain basic research, NOT incremental work.*

# This will take you a long way, in fact

- In the words of a famous art forger

- The level of connoisseurship is not very high

- the key was ticking all the right boxes in expert's mind

- hitting all the right triggers that they expected to find

- 'they go further than most people might imagine...'

- even if standard in some respects not high
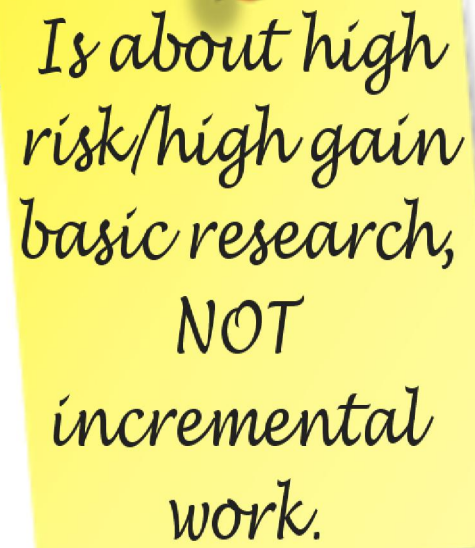
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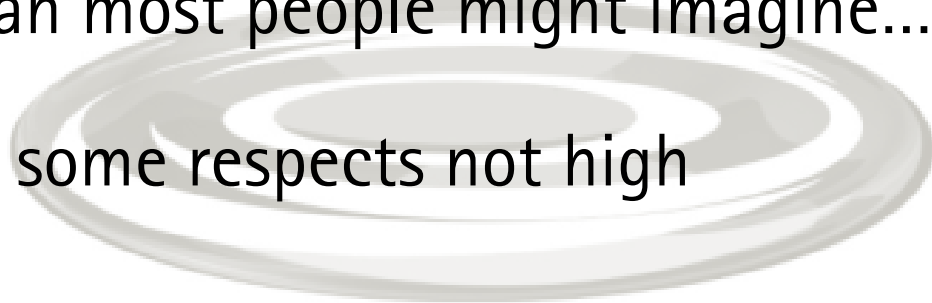
# Although idea of risk is a bit overstated

- It is part of their (slightly vain) self image
- An ideal that they aspire to rather than operational
- What they want is:
- highly innovative, ambitious, beyond state-of-art
- open horizons for resesarch, (society and industry too)
- well planned, clear objectives, well sold, well managed
- with buyable researchers
- clear steps beyond s-o-a *are* risks – big these up!
- no need to promise a revolution

# Focus on the 'why' not the 'what' and 'how'

- Easiest to sell the project on its benefits

- and very difficult to compete on results and activities

- this is a key idea that takes up time later

- just hold that in mind for the moment

# Set it up quickly using SCQA

- Situation
  - 'for a long time we have been...'
  - start with something they all know
- Complication
  - 'but the situation has changed recently...'
  - something is in the way of progress, triggers project
- Question
  - 'so, what should we do?...'
- Answer
  - 'we need to...'
  - and this is done at overall level & for each project objective
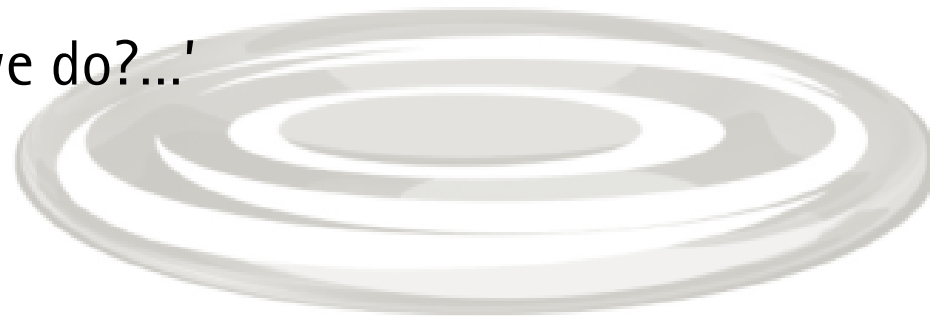
# Then there are more creative mistakes...

- Which are still quite common

- also very damaging, in particular in combinations

- and which we need to avoid at all costs

Less simple but still VERY common errors

**Different** — Not like other EU programmes with consortia & innovation objectives.

**Paradigm** — Everyone promises new one & has become cliche. 'Breakthrough' better.

**Devices** — In StG, AdG & Consolidor call keep it well away from industrial applications.

**State-of-art**
- **More than** — IS NOT: General dicussion of background or context.
- **Critical!** — IS: who doing what & where, what published, what gaps. EXPLAINS OBJECTIVES.

**Absent solutions** — 'Lack of this & we need more of that' in place of problem-driven objectives.

**Risk** — Everyone mentions risk, but proper assessments v. rare. Points to be won here.

# Ok, so once we're in the right frame of mind

- Simply follow the B2 template structure

- its clear, they know it, expecting it and easy reading

- and can then base B2 on B1 very easily

- and expand it a bit

- but not necessarily very much
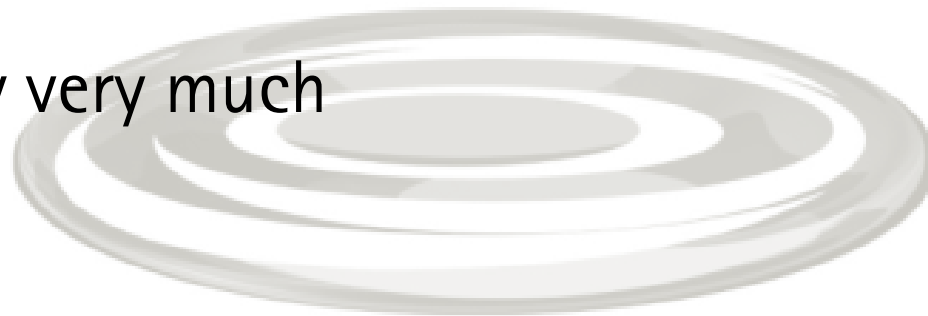
# A. State-of-the-art and objectives

- This is the most difficult bit

- but also most important – it is what they are buying

- where I spend most of my time

- and where the biggest mess is generally made

- it is really tough to get this right, but you must

- so, another quick diversion, or two…

## Log Frame

State-of-art →
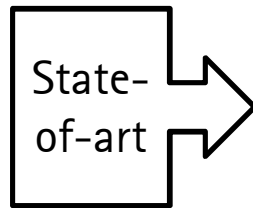
overall objective (greater why)

project objectives (WHY!)

intended results (what)

activities (how)

resources (how much)

# This is the key to quick accurate planning

- And if there is time and a willing victim or two

- we'll do a short log frame assessment at the end

- as together we can very quickly get all the parts

- in the right layer of the hierarchy

- and make the writing *much* easier
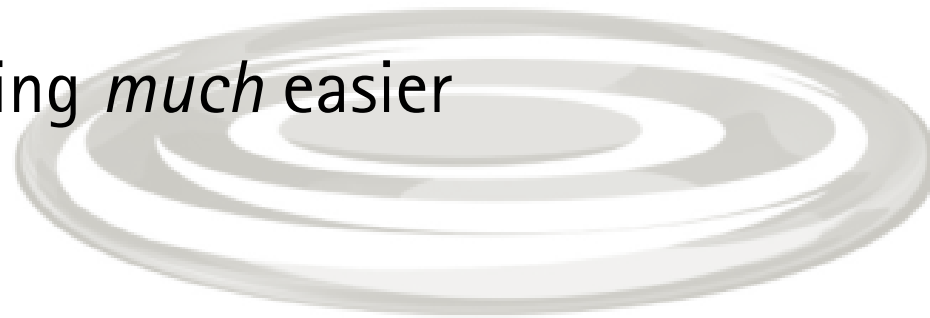
Bloom's Taxonomy

evaluating    (higher order thinking skills)

synthesising

analysing

applying

understanding

remembering            (lower order)

# Some good words at higher level might be...

- Evaluation:  Evaluate, judge, recommend, justify, appraise, argue, contrast, choose, defend, descriminate, estimate, grade, predict, prescribe, validate, verify...

- Synthesising: assemble, arrange, combine, compile, create, develop, devise, enhance,  facilitate, import, integrate, modify, organise...
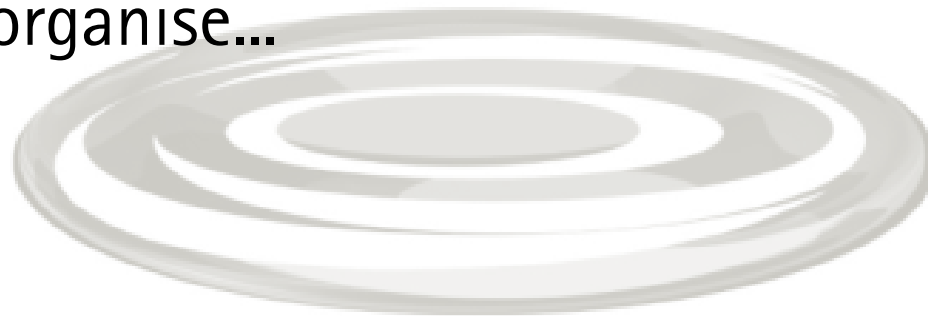
# So, on to the writing of this section

- Split it into overall objective

- to which you'll make a contribution

- i.e., this is the field and the sub-fields and problems

- serves as introduction

- and you'll address big, apparently intractable problem

- and contribute to beneficial change

# And project objectives i.e., the purpose

- The heart of the project

- Exactly what you are going to change

- The differences, effects, sustainable benefits

# You'll be in 'good' company here

- Objectives and Key Results (OKRs) part of way of life

- at Google (1999), LinkedIn, Intel, Oracle, Twitter etc.

- Under company mission and vision statements

- Each person has annual and quarterly  OKRs

- Usually 3 with 3 results each with *measures*

- Just beyond reach, not impossible or comfortable

- 70/80% achieved – measured by results attainment

# In fact, SMARRT ly described

- Specific
- Measurable
- Achievable
- Relevant
- Realistic
- Time bound

- i.e., easy to understand and know when reached

# Benefits of clear objectives

- Disciplines thinking
  - the rest of the work becomes much clearer
- Communicate accurately
  - everyone knows what is important
  - makes it possible to evaluate project
- Establishes indicators
  - shows that it is a feasible project
- Focuses efforts
  - becomes clear what the activities are
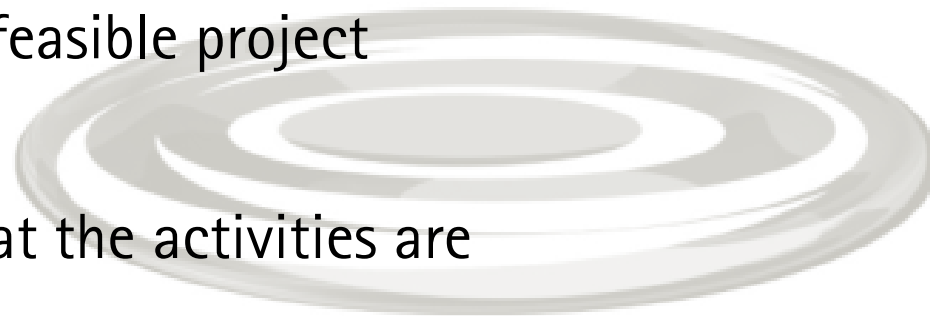
# And they should be MECE

- Mutually exclusive and collectively exhaustive

- So the objectives are distinct, don't blur

- and do the whole job intended

- and results that create them are all and only necessary

- i.e., clear, thorough and logical, no overlaps, no gaps

- necessary and sufficient

# Set in the state-of-the-art-key step in logic

- Either

- Lead with project objectives

- right after overall objective/introduction/scene setting

- So, given that these are the big issues

- My objectives are that at the end of the work…

# Or

- Set out state-of-the-art in the wider fields

- discussed in overall objective

- and then say that given weaknesses and gaps

- my project objectives are…
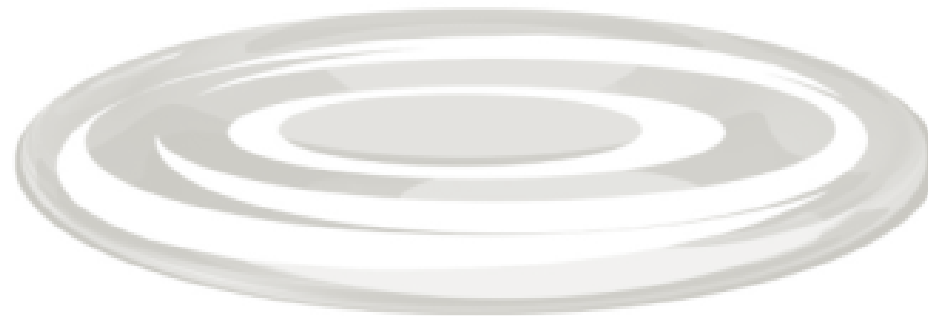
# State-of-the-art shows mastery of field
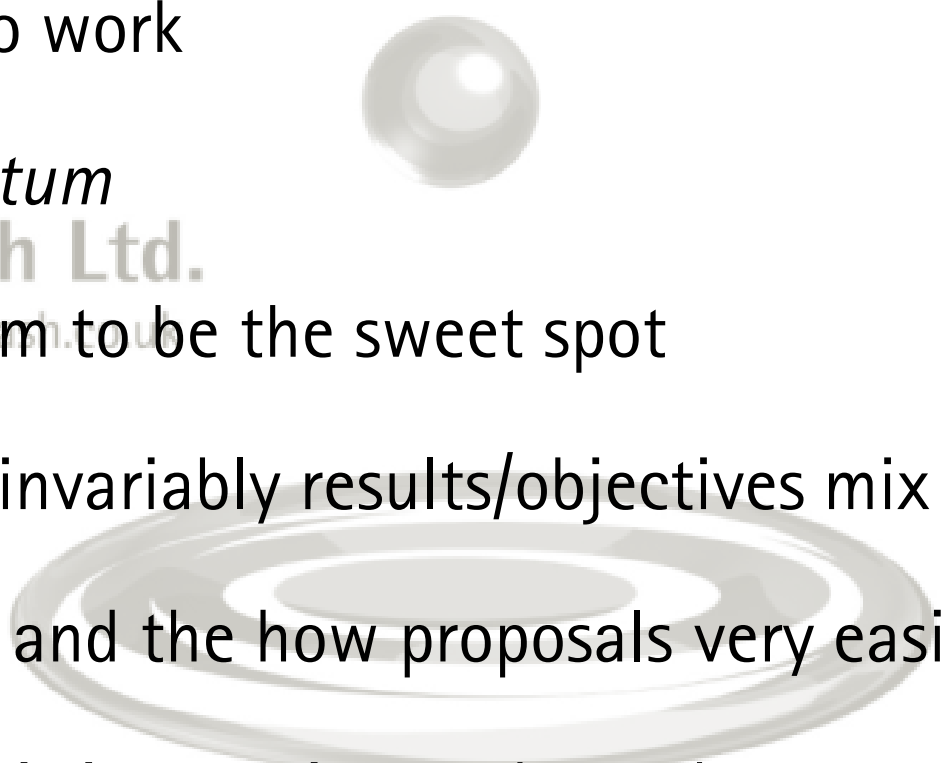
- Names

- Places

- Papers

- Books

- Debates

- and crucially the blind spots and gaps

- you have no project without them
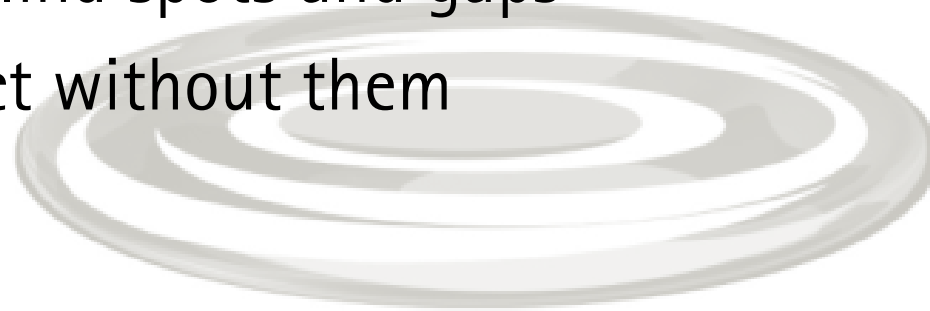
# How many project objectives ?

- The brave state one big one

- Two never seems to work

- *Omne trium perfectum*

- and three does seem to be the sweet spot

- any more and it is invariably results/objectives mix

- can't sell the what and the how proposals very easily

- hope we can see this in practice at the end

# Let's review the objectives stuff quickly

- At it really is the win/lose part of the job

- and the driver of the whole structure of the proposal

- i.e., it puts all the other sections to work

- and draws them in very quickly and logically

**Best strategy – work back from objectives**

Simplifies — With crystal clear objectives, methods, results, resources will fall into place.

Start — First set out objectives: these are heart of work. Work back from them.

End points — Set out new, fully realised knowledge or capacities, NOT process verbs, not questions.

Higher order thinking — USE 'control, predict, evaluate' etc. NOT 'describe, identify, analyse' etc.

'Why' not 'what'
- Benefits — Objectives answer the 'why' questions about the project.
- Confusion — ARE specific differences it will make, NOT results, methods, activities.

'At the end...' — Phrased by thinking: 'At the end of the project' - how the world will change.

# *Push* it into Goldilocks Zone

| PANEL | TIME | | 3/4/5 YEARS | |
|---|---|---|---|---|
| CHAIR | | INDEPENDENCE | | |
| | MONEY | | SIZE OF TEAM | CROSSING DISCIPLINES |
| COMPETITORS | | | | |
| CV | PROJECT EXPERIENCE | | | MANAGEMENT EXPERIENCE |
| | | BASIC | | |
| EARLY CONTRIBUTIONS | CONSENSUS | CURRENT | HOT TOPIC OR NOT | |
| NETWORKS | OVER HORIZON | | INCREMENTS | |
| | | APPLIED | | |
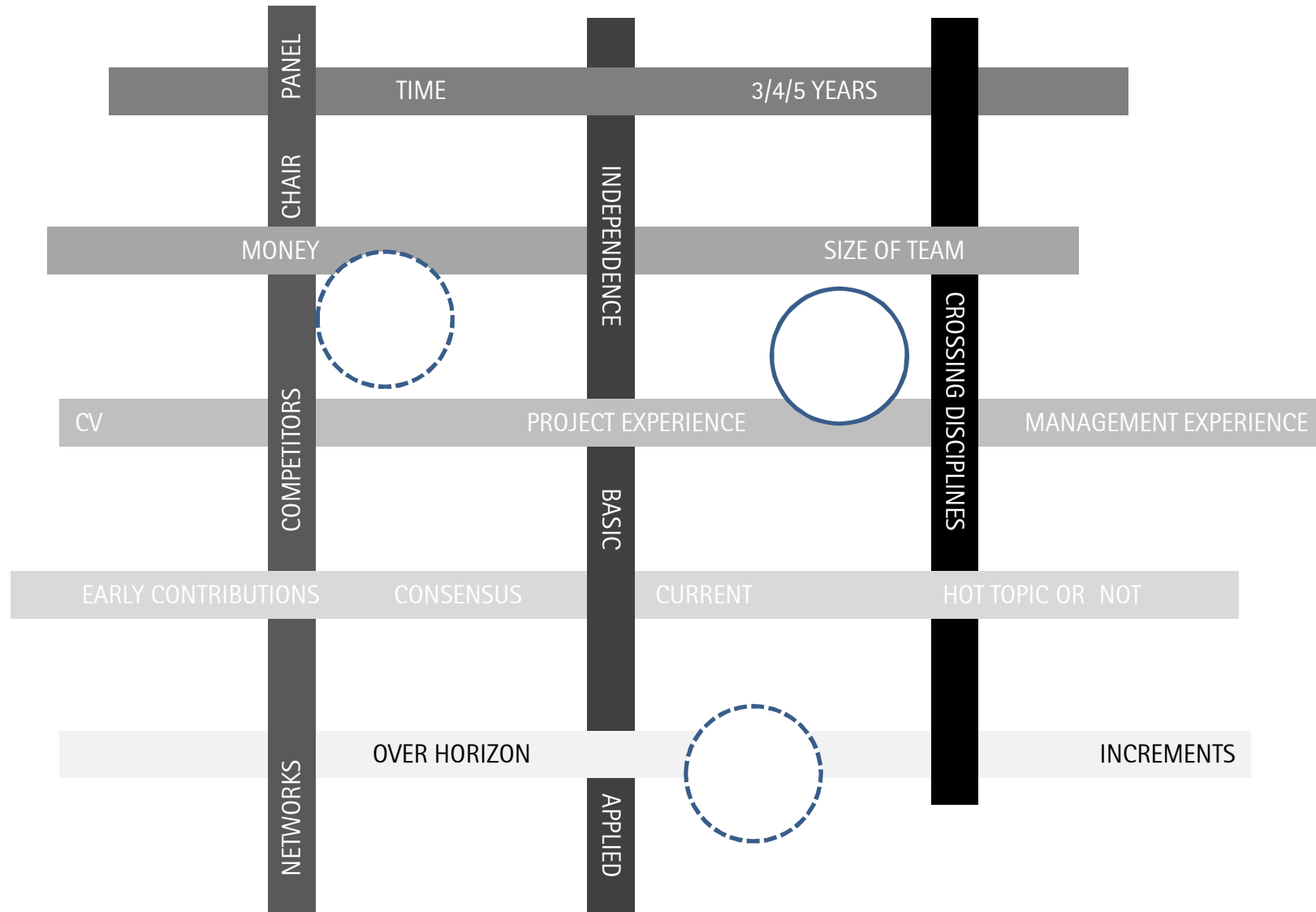
# You'll note that it is a *very* active process

- consciously designing the most competitive proposal

- might not be the thing you want to do most

- or have been doing

- or thought it might be

- but which is fit for this particular game

- the main tool in use is the hammer

# And then the results are

- all the outputs and deliverables

- and immediate effects

- that all together add up to objective realised

- this is the way that the success evident

- that promises have been delivered on

# and then the impacts

- the beneficial effects, horizons and opportunities

- for research, scholarship and technology

- at the end (objectives)

- in meso future (overall objective) and

- well beyond the duration of project (overall objective)

# basically

- How your intervention alters the state of the world
- what difference is it going to make
- to direct recipients, larger systems and community
- why is this work interesting and beneficial
- They need to be credibly described
- with logical causal links for attribution
- but in these projects are mostly claims
- and not subject to ex post evaluation

# B. Methodology

- Again consider general and specific split

- 'Approach' explains how and why selected

- introduce why these are uncoventional

- or beyond state-of-the-art way of reaching objectives

# Then link methods and objectives

- To reach objective 1 I will do this and this and this
- this approach is challenging, uncoventional
- and beyond state-of-the-art because xyz
- Describe all and only – law of succintness
- activities to get to objectives and no more


- This is the bit you know well
- Your daily business

# Resources etc.

- If the project is clearly planned

- resources are fairly obvious

- i.e., all and only what you need to do the jobs

- to deliver the results

- to reach the objectives

- to contribute to the overall objective
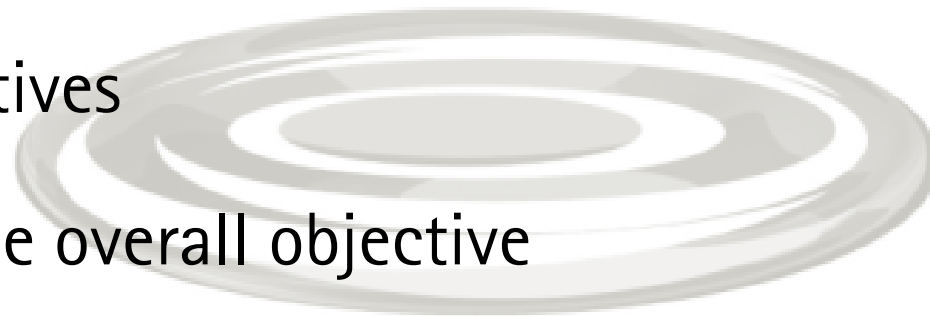
# And even in B1 give them

- Sketch of budget

- Intermediate steps and stages

- Control points/milestones

- So, sketch out project plan in miniature
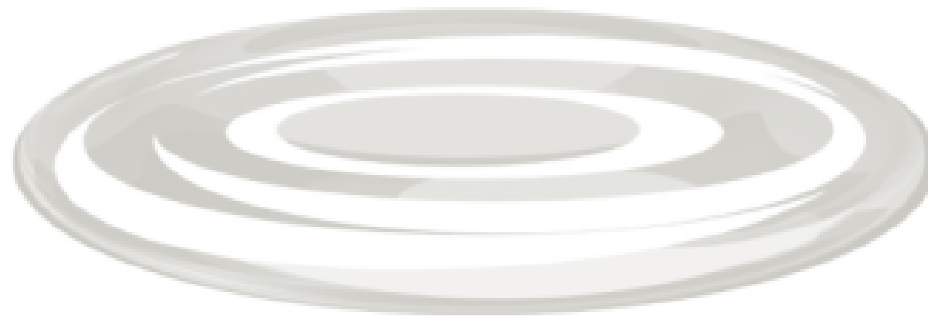
# And something on risk/gain

- Importance of this is a bit overstated

- Have to try to push to the edges of knowledge

- but show can do it – slight paradox or balancing act

- Beyond state-of-the-art is key idea

- captured in your objectives statements

# Beyond state-of-the-art is always risky

- So you will show that appetite for risk is high (ish)

- but also need to show that it is not out of control

- and so in B1 and certainly in the B2

- give sketch of how risk managed

- is key part of good project plan, all projects

# 'The effect of uncertainty on objectives '

**Communicate and consult**

| Establish the context | Identify the risks | Analyse the risks | Evaluate the risks | Treat the risks |
|---|---|---|---|---|
| What do we need to take into account? | What might happen? How, when and why? | What will this mean for our objectives? | Which risks need treating and our priority for attention? | How should we best deal with them? |

**Monitor and review**

# Normally a million cv questions, but

- In practice, I think, if eligible to play the game

- you can win with a great idea

- excellently sold – how to do that is for later

- It is as it is – wait, build, use other programmes

- Address their evaluation issues in paragraphs of cv

# Finally, think about how scientists 'read'

- Have a 'purpose-laden schema'
  - particularly the evaluation criteria for ERC
- i.e., trying to accomplish a job – find fundables
- process information against this schema
- how it matches what it known
- and judgements about what's new & where field going
- deciding, warily, if this can be incorporated
  - into knowledge
  - and into this particular programme

# Have some bad habits

- Highly non-linear, jump around to get headlines/news
  - read backwards, jumping back and forth to find news
- Scanning can be rapid, faster than conscious thought
  - certain words trigger attention, (ERC and) field buzzwords
  - words reported as 'popping out of page' without thinking
- Readers  hooked in title and text by

  - names of objects or phenomena – (ERC and field) buzzwords

  - names of approaches and techniques – ways of knowing

  - names of individuals and research groups – links to leaders

# You might say that…

- The Rhetoric of Assertion needs to match
- The Rhetoric of Appropriation
- You have to position yourself in the 'rhetorical space'
- At the core of a scientific world picture
- it is an extrapolation of your past
- and a staging area for future expedition
- 2 actors, 2 different soliloquies one same stage
- And taking it forward in a challenging way…simple!

# So, in Thinking Fast and Slow terms

- You want to try to keep them in System 1

- i.e., brain's fast, automatic, intuitive approach

- which is often logical and useful

- using association and metaphor to draft reality

- And keep them out of System 2

- i.e., slower, analytical mode where reason dominates

- which is conscious, deliberate but often irrational, lazy

- and willing to accept System 1 answer unless pushed

So, some things to avoid and some to do

**Tone of voice**

Polarising
- Lots of — Messianic, combative, prejudicial, accusatory, pathos.
- Carry with you — DON'T ALIENATE ANYONE! and it leads to non-science.

Too modest? — Is 'selling': ambitious and bold, just beyond usual academic modesty.

Passive — Use the active voice at all times.

Sell — Lightly and discretely but do it, don't write it like a research paper.

Self evident that...
- Lots of — Coercive tone, 'this must be done', 'this vital but under-researched field' etc.
- Convince — Case has to be made for each project without assumptions - ie. it is science.

Negative — 'This project is not about, I will not do...' - just say what you WILL do.

# Proposals are technical sales documents!

- Still has air of charlatanism for some

- but can any longer be avoided like it or not

- everything is competed, everyone is involved in EU

- In outright race for cash and resources

- outstanding projects won't sell themselves

- average projects very well pitched

- will beat great ideas sold badly

# Consider 6 dimensions for cumulative effect

- Reciprocation
  - who can I help?
  - better than who can help me get where I want to go?
- Social proof
  - guided by what peers are thinking when uncertain
  - so linking into networks of trusted thought leaders
- Commitment and consistency
  - preference for following pre-existing attitudes, values, action
  - showing how research trajectories point towards this project

# Where possible on all 6 for good effect

- Liking
  - people say 'yes' to those they like
  - in writing this is probably about making easy to evaluate
  - and showing we share concerns of mainstream audienceA

- Authority
  - people tend to follow lead of experts and authorities
  - link to authorities and state core ideas with authority

- Scarcity
  - the rarer it is the more they'll want it
  - timely and urgent and with you as the person

# Critical to open it up to evaluation

- 'Do not be concerned that you have no position, be concerned that you have what it takes to merit a position. Do not be concerned that no
one recognises you, seek that which is worthy of recognition'

- Confucius won't do the job any more!

- Think Machiavelli's 'virtù' – whatever it takes to win.

- Too many remain impossible to evaluate fairly

- and simply make the reader work too hard
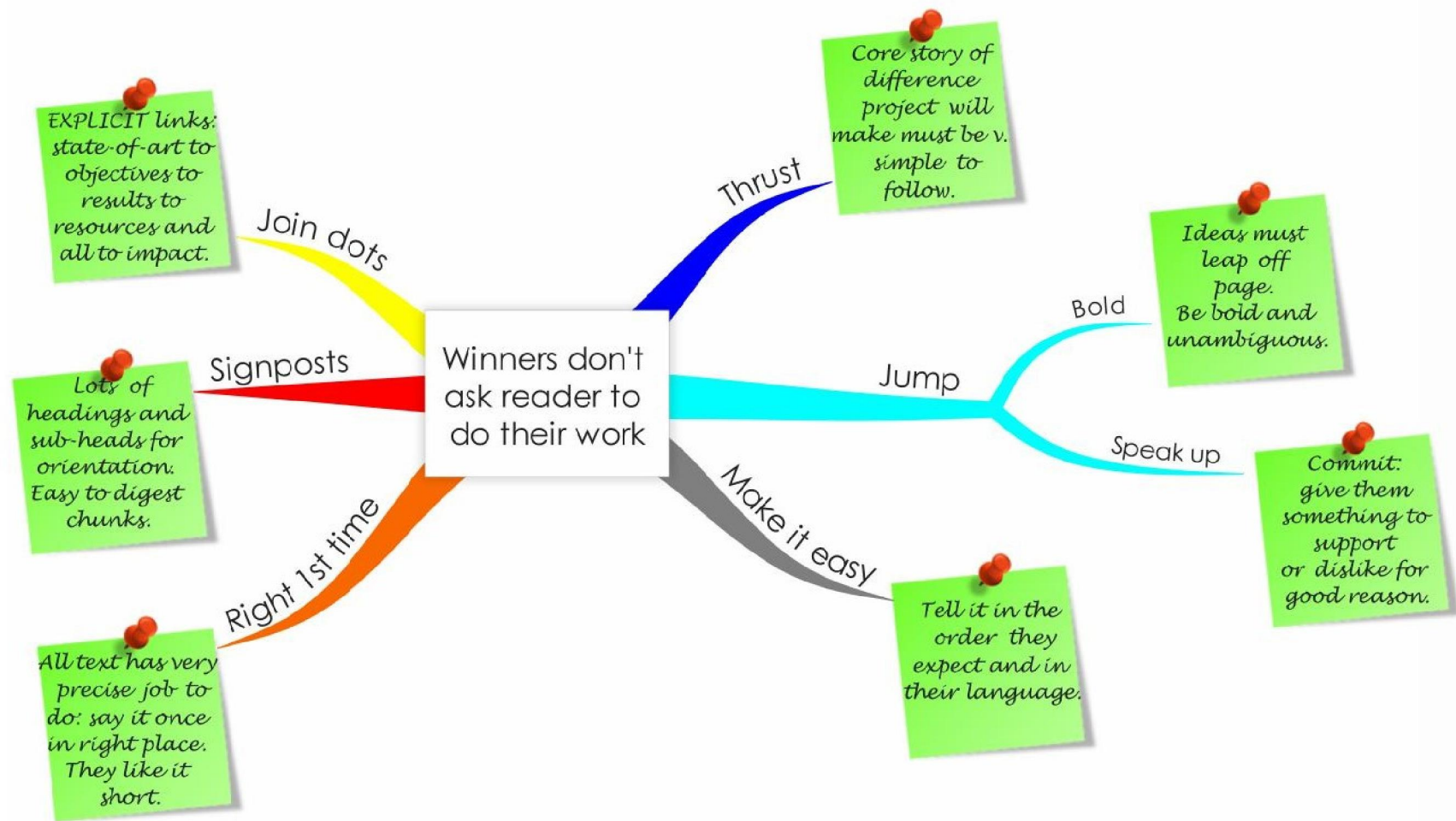
| finished (rare) | in progress (common) |
| --- | --- |
| familar, anticipated form | meanings proliferate |
| linear structure | reader active |
| pre-determined meanings | having to create |
| status quo style & content | makes its own laws |
| made, fixed meanings | multiple ideas at play |
| consumed by the reader | destablises expectations |
| passive, receptive reader | no narrative structure |
| text as closed | reader becomes writer |
| shared understanding | impossible to evaluate |
| decidable, evaluatable | |

# Work is about moving from 'what' to 'why'

- Clarifying objectives as benefits and end points

- and linking them into the state-of-the-art

- which is the win/lose part

- (the rest mostly takes care of itself)