

The Next Three Years

first thoughts

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Mike's input / questions?

Mike Harrison's themes

Site-specific design 📝

Phased project (aka LHF)

Cryomodule design and R&D

Possible selective project engineering?

Beyond current funding profile?

Not to cover?

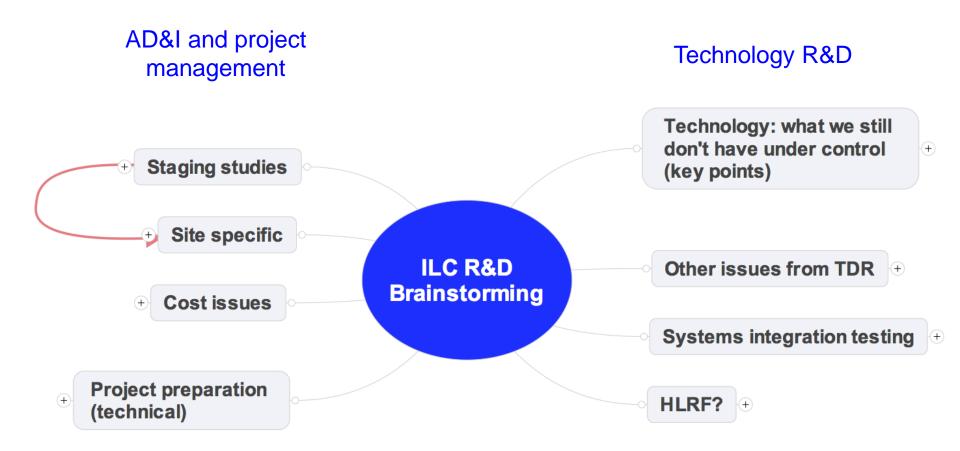
Preparing for construction project

...

TDR cost base and its maintenance

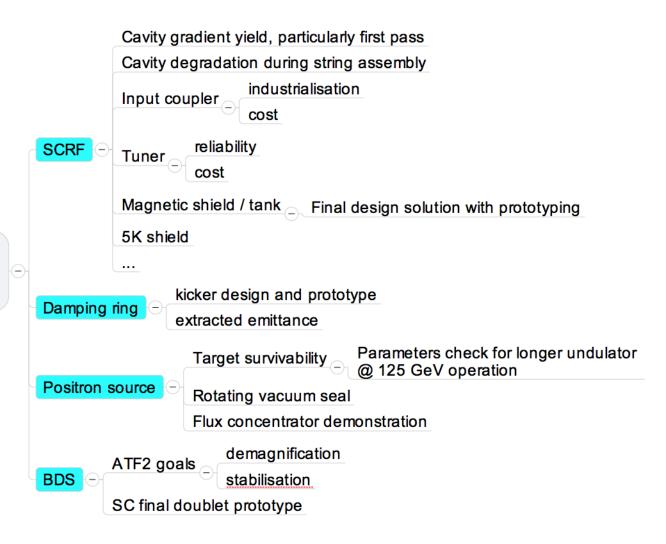


Themes





Technology: what we still don't have under control (key points)





Other issues from TDR

installation and manpower

global timing and operations

BDS design & performance in particular beam dynamics and tuning

...

Re-read TDR and look for issues

Request input from ECFA LC2013 WGs



Systems integration testing

FLASH and FLASH upgrade

STF2

NML

Understand individual goals and schedules

Look for "complementary programmes"

Keep concept of "9mA collaboration" and extend to STF2 and NML



what is still to be done for Marx? Industrialisation and cost studies lifetime testing? anything really left for klystrons? more vendors? efficiency? prototyping and demonstration Idea to actually test remote adjustable PDS is very attractive



Looking at trade-offs between design, cost and ease of 'upgrade' to the next stage. Technical based and relatively straightforward.

Look at differences between energy points

Reevaluation of parameters

simple scaling of costs
simple scaling of power needs

Conceptual (general)

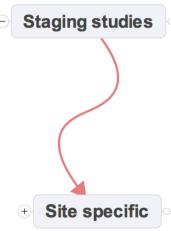
This requires us to develop models (probably more than one) of how the mass production and construction would go. Starts to overlap with PIP themes. Several scenarios could be considered.

Impact on CM production
Impact on schedule
Overall project costs (profile)

... Engineering

TDR concept of "global value engineering" important!

- cost impact / trade-off should always be considered
- Change control! (At least some form of it)







Basically reacting to 'what if' questions from site considerations. For example how can the accelerator design deal with change request driven from (for example) civil construction needs?

Note this can be considered as 'change control' and 'value engineering'.



Module assembly

Achieving RI production methods

Impact of distributed IKC models

Cost issues

They are legion!

Propose that DESY ILC-EDMS team takes control TDR cost basis (Additional resources to be found)



Assume TDR is our construction project baseline Update and consolidate EDMS documentation Cross-check CFS requirements (traceability) Implement change control Begin to generate/consolidate WBS Suitable for IKC models WBS development Identify and prioritise pre-construction R, D and E work. **Technical** Interface definitions Responsibilities Risk assessment

Project preparation (technical)



Reality Check

Resources!

- We have much less than during the GDE!
 - · currently tending to zero
- Europe has some potential
 - Greater involvement from CERN?
 - EU money?
 - ...

For technical based R&D

- GDE experience is to maximise use of existing (and funded!) programmes
 - attempt to influence where possible
- Make clear priorities
 - Needs discussion and consensus

For ADI-like

- Core ADI team is not available very limited in what we can do!
 - There will be many questions 'punted' to 'future work'
- Project management / EDMS stuff
 - Interest at DESY (obviously)



Next Steps

- Take themes and iterate them with broader group(s)
 - This board
 - ECFA LC2013 WGs (part of their charge?)
- Identify priorities on following time scales:
 - Next 6 months (until next workshop)
 - Next three years (LCB mandate)
 - Construction project (think positive)
- Produce a 'plan' report after ECFA LC2013
- Go look for (new) money
 - in Europe at least

the money!