



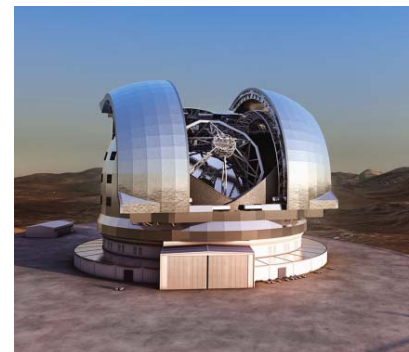
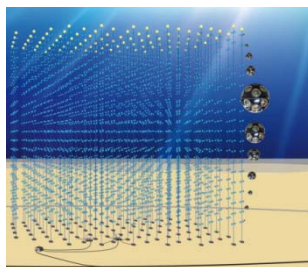
Opportunities for HiLumi upgrade LHC (CERN)

Initiators:

Industry: Hans Priem (VDL), Sytze Kampen (Airbus), Bert Monna (Tiberion), Mo Biglari (Mat-tech)

NWO: Rob Klöpping

TNO: Sander Kossen, Bart Snijders





HiLumi upgrade CERN

- Goal increase luminosity of LHC x 10
- Upgrade finished ~2030
- Estimated tenders for industry 200-300M€





CERN's approach for HiLumi

3

- Small companies are preferred supplier
- CERN designs and specifies prototype
- CERN performs system integration of prototype
- Parts are tendered in 50K en 200k CHF chunks
- Industry performs production
- CERN projectmanagement underestimates the amount of work for CERN purchase department...
- Dutch companies are highly appreciated within CERN



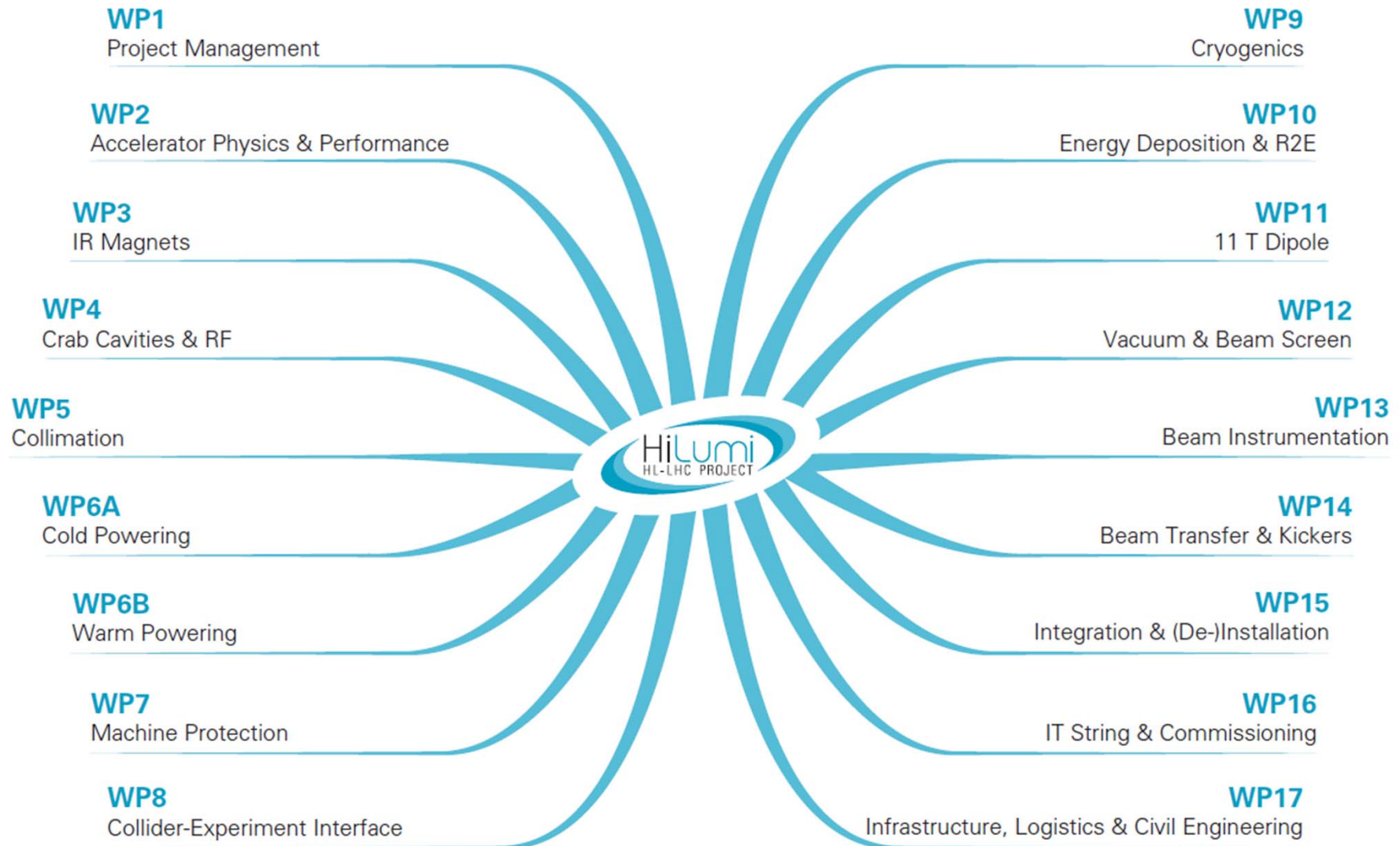
HHH approach HiLumi Upgrade

- Goal: offer a complete solution for a WP
- Benefit for CERN:
 - Less risk
 - Less work
- Benefit for NL industry
 - More return
 - Ultimately share risks of WP



HHH approach HiLumi Upgrade

- Look at complete WP and separate into clusters
- We've done this with WP11 last year
- Appreciation from CERN
(nb position Boi Lan is now occupied by Isabel Bejar)
- Patience, WP11 delayed over 1 year
- Early enrollment has benefits





WP4 - Crab Cavities & RF

Keywords:

[Radio Frequency](#)

[Raw Materials](#)

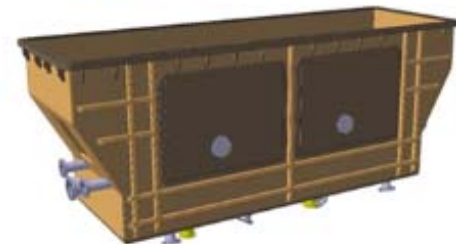
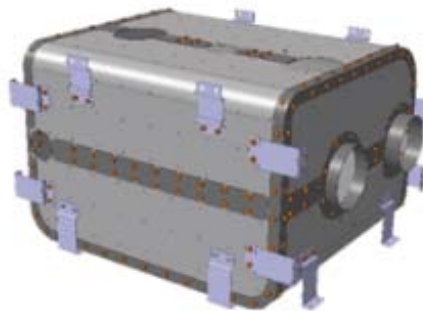
[Mechanics](#)

[Manufacturing](#)

[Electrical](#)

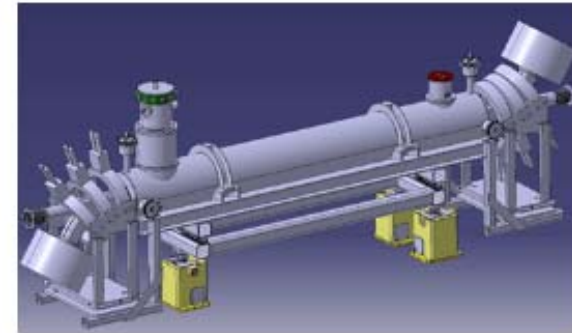
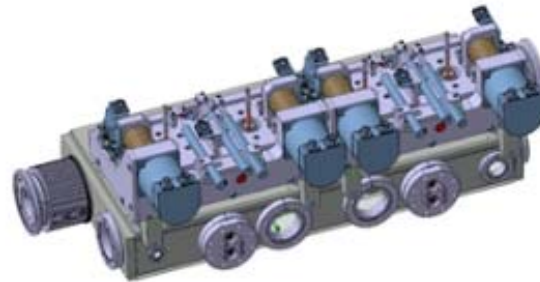
[Electronics](#)

[Cryostats](#)





WP5 - Collimation



Keywords:

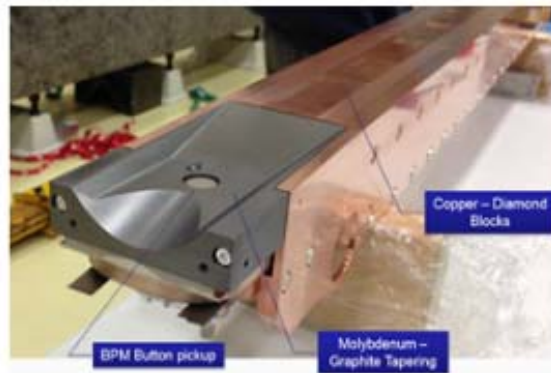
[Raw Materials](#)

[Mechanics](#)

[Manufacturing](#)

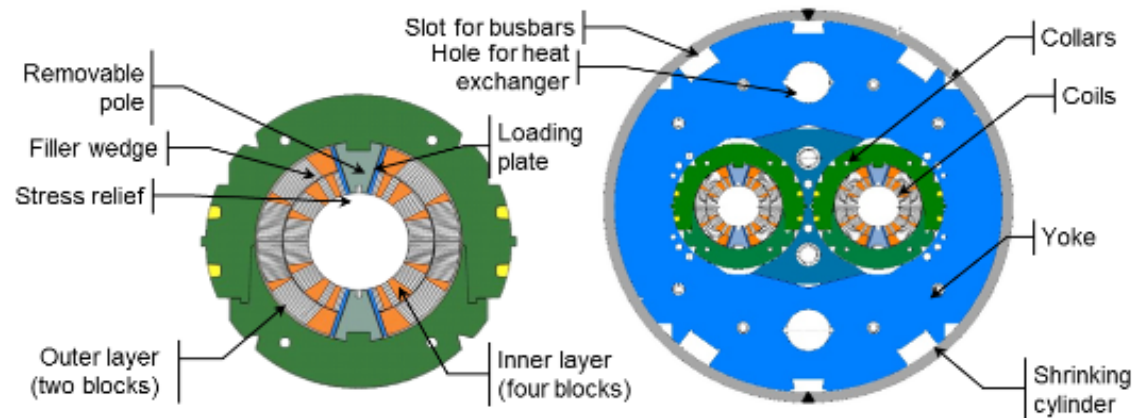
[Electronics](#)

[Collimators](#)





WP11 - 11T Dipole

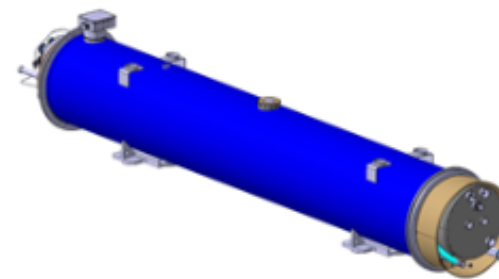
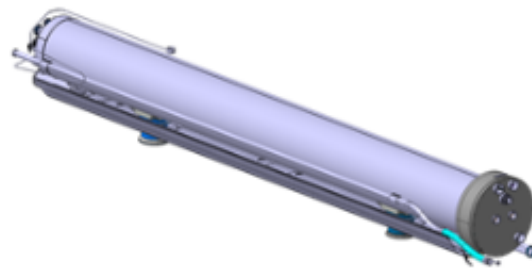


Keywords:

[Raw Materials](#)

[Cryostats](#)

[Magnets](#)





Other interesting WP

- WP9 – Cryogenics
- WP12 – Vacuum

More (technical) info HiLumi upgrade:

- HiLumi upgrade ppt Rob BSI nov 2015 (bigscience.nl)
- <https://project-hl-lhc-industry.web.cern.ch/>
- <http://hilumilhc.web.cern.ch/>



Next steps


- Prepare Industry meeting 31 October Lissabon
 - Analyse HiLumi WP's in workshop 24 October
 - Info/sign in for workshop: Rob
 - Visit Industry meeting in Lissabon
- Reply Tenders with NL Proposals
- Industry Meeting UK Maart 2017
- Industry Meeting NL?



2ND HILUMI INDUSTRY DAY

INSTITUTO SUPERIOR TÉCNICO (IST)
31 October 2016
LISBON

AN EVENT FOR COMPANIES WILLING TO TAKE ON THE HL-LHC TECHNICAL CHALLENGES
More information on HL-LHC and future procurement needs
<https://project-hl-lhc-industry.web.cern.ch>

Registration before 30 September 2016
<https://indico.cern.ch/event/557233/> 

THE 3RD HILUMI INDUSTRY DAY WILL BE HELD IN THE UK ON 30 MARCH 2017

