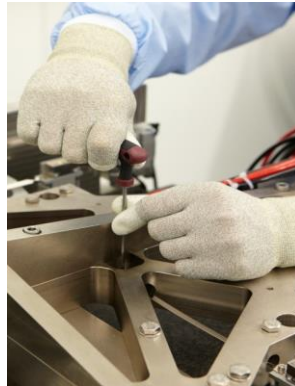
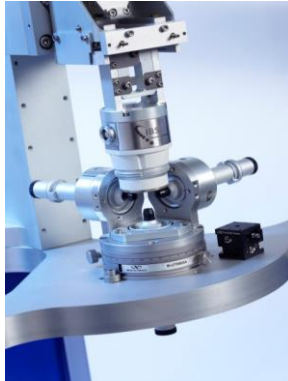




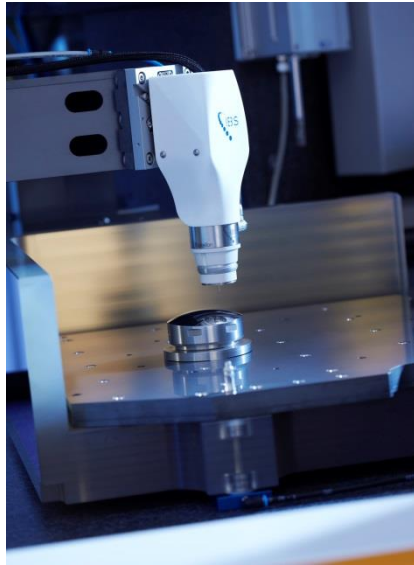
Understanding the true meaning of precision

A Global Reputation

Ultra Precision Measurement and Engineering Solutions



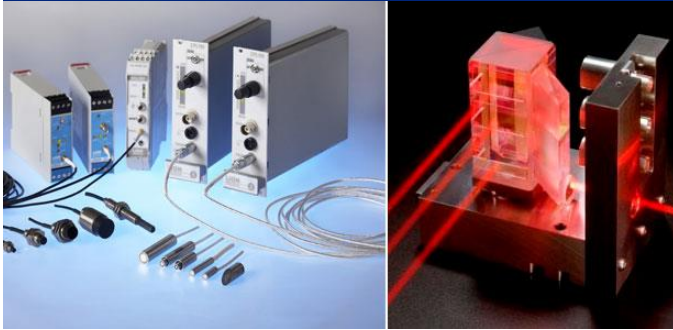
Our expertise



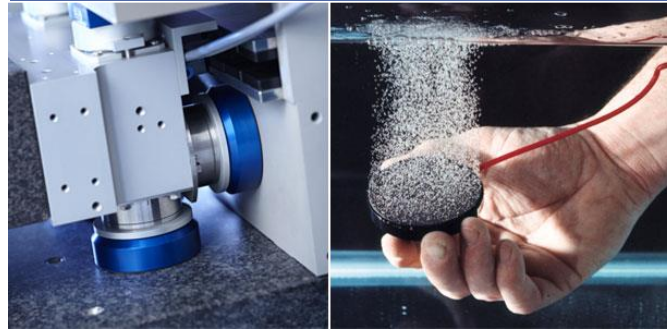
Ultra Precision
Everything we do...is built on unique
Measurement metrology expertise
Engineering

Our Products

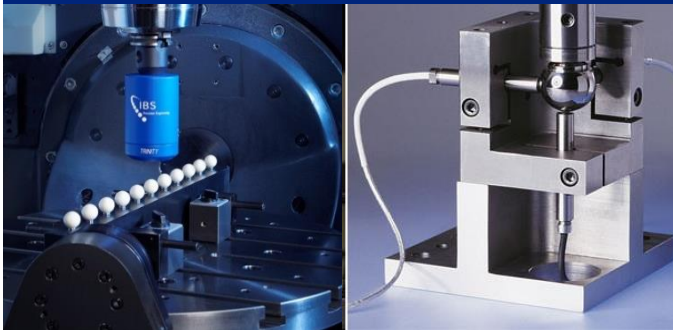
Non-contact Measuring Systems



Precision Motion Components



Calibration & Inspection Systems



Metrology Machines



Our Markets

Semiconductor



Aerospace



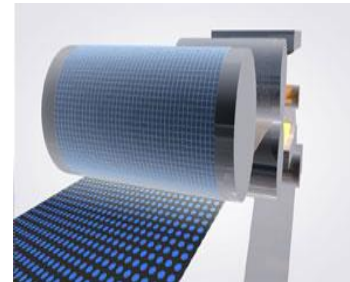
Machine Tool



Disk Drive



Scientific Instruments



Printing & Processing

Taking customers to the next level of precision in manufacturing.

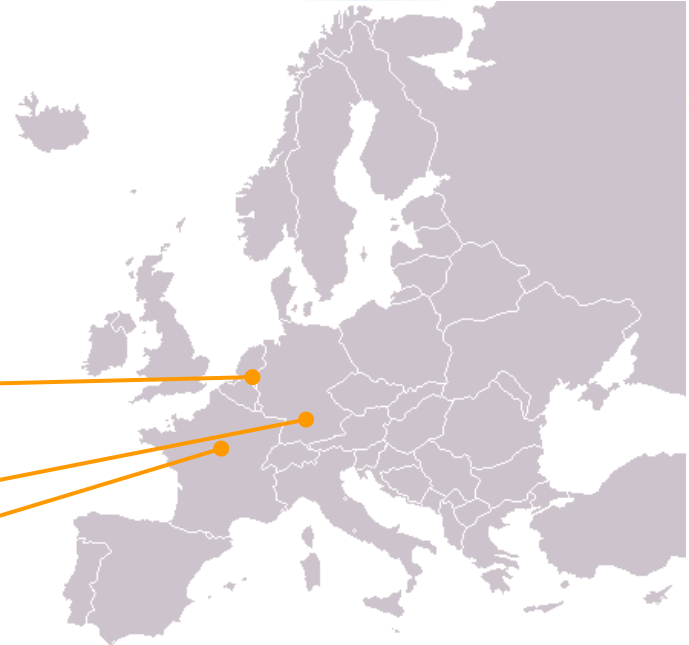
IBS Precision Engineering offices



IBS PE BV – Corporate Headquarters
The Netherlands

IBS PE GmbH Office Germany

IBS PE Sarl Office France



Engineering Solutions: ALICE Detector Upgrade CERN





ALICE Detector Upgrade



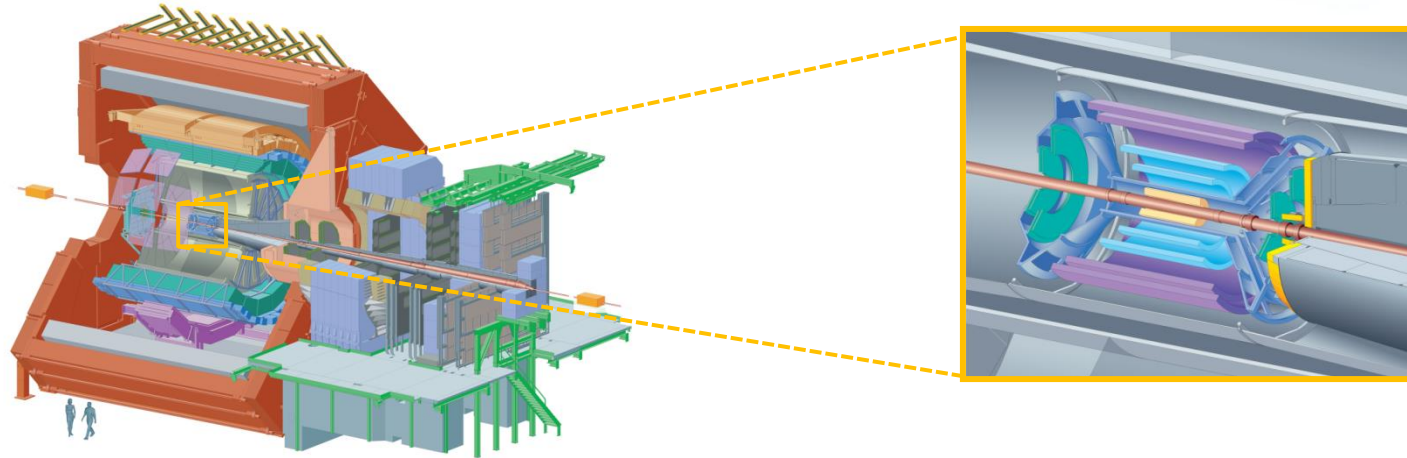
ALICE detects quark-gluon plasma - state of matter formed just after big bang

Detectors among the most complex scientific instruments built by mankind

IBS providing precision engineering for advanced upgrade



ALICE Detector Upgrade



ALICE
(A Large Ion Collider
Experiment)



2019

Inner Tracking System Upgrade:
Higher resolution, lower mass





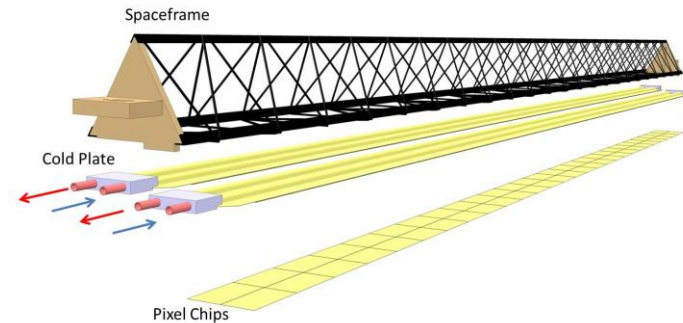
ALICE Detector Upgrade

CERN Upgrade Strategy: Increase luminosity & precision

Key item - new, high-resolution, low mass, 7-layer silicon tracker based on monolithic pixel detectors

IBS role

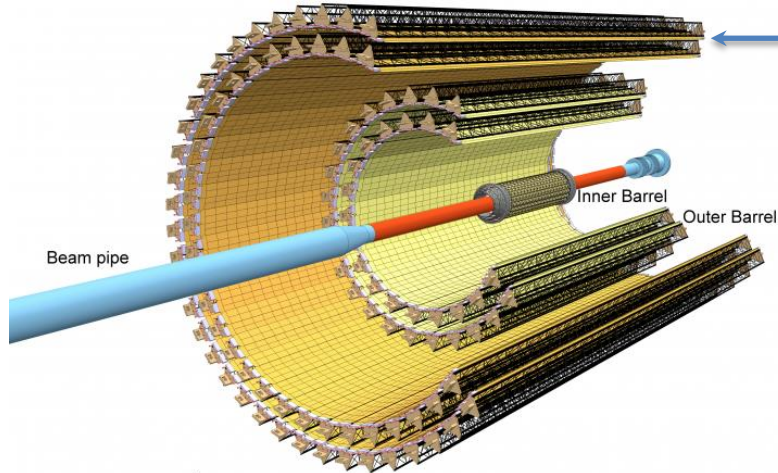
- High accuracy sensor array positioning & interconnect
- Systems supplied to 5 institutes across the globe





ALICE Upgrade and IBS

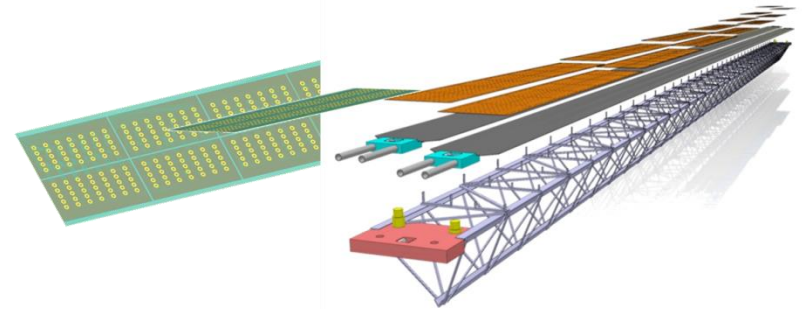
Inner Tracking System



Perfect particle tracking



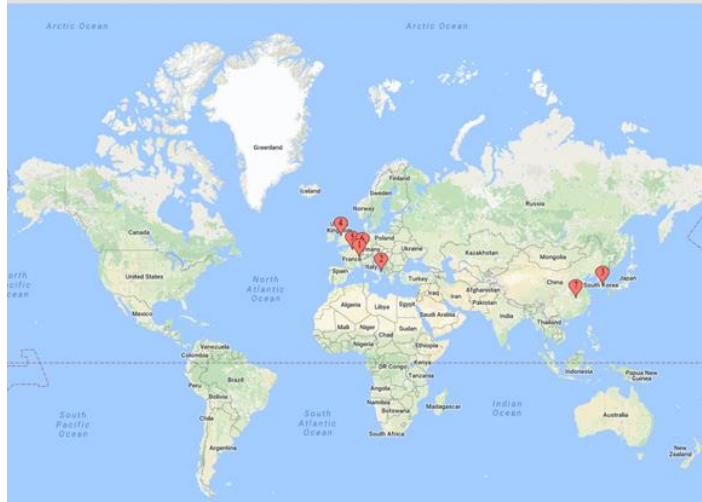
Automated detector
assembly & integration



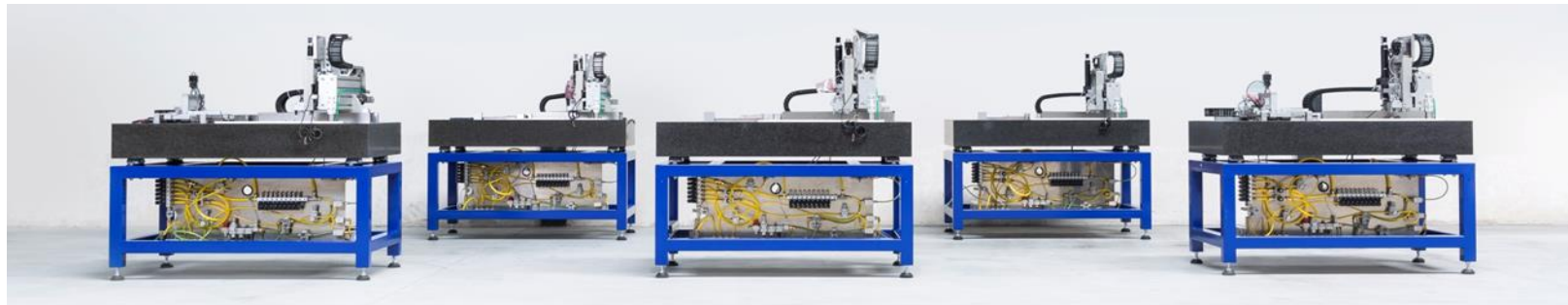
Machine design



7 Machines

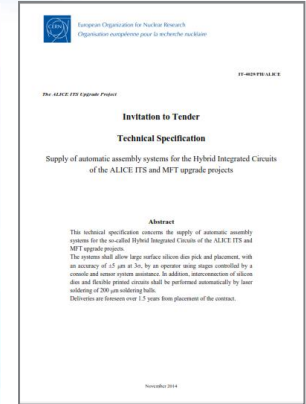


- ARINNA- 1 (CERN,Switzerland)
- ARINNA- 2 (Pusan, Korea)
- ARINNA- 3 (Bari, Italy)
- ARINNA- 4 (Strasbourg, France)
- ARINNA- 5 (Liverpool, UK)
- ARINNA- 6 (Wuhan, China)
- ARINNA- 7 (Paris, France)

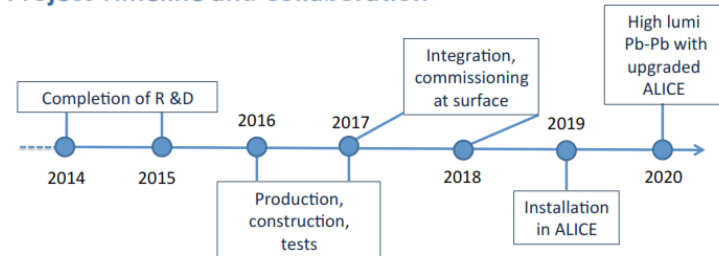


Contract Procedure

- CERN Market Survey – identify potential bidders
- Pre qualification phase
- Tender documents issued by CERN
- Submission (pre checked by NIKHEF/ILO)
- Negotiation
- **Contract 😊**



Project Timeline and Collaboration



Lessons learned

- **Dos & Don'ts**
 - Play to your strength !
 - Do what you promise, be honest
 - Working with academia can sometimes be a challenge

- **Enjoy in what you are doing;**
 - taking part in a large scientific experiment.

Conclusion



ED Eindhovens Dagblad

Home Regio Algemeen Sport **Economie** Misdaad & 112 ED Club Extra

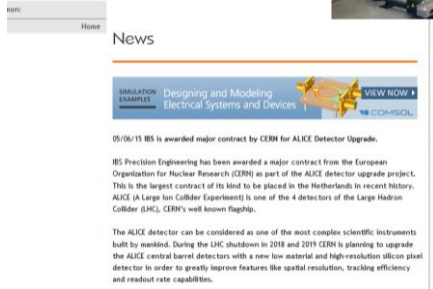
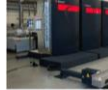
ASML Beurs Blog: Eco Talk Bouw DAF Phillips VDL

Home > Economie > IBS uit Eindhoven werft 'grootste order ooit' bij onderzoeksproject CERN Zwitserland

IBS uit Eindhoven werft 'grootste order ooit' bij onderzoeksproject CERN Zwitserland

08 mei 2015 | Laatste update: 08 mei, 07:00

Dutch High Tech Systems



Home News

DESIGNING AND MODELING ELECTRICAL SYSTEMS AND DEVICES [VIEW NOW](#)

05/06/15 IBS is awarded major contract by CERN for ALICE Detector Upgrade.

IBS Precision Engineering has been awarded a major contract from the European Organization for Nuclear Research (CERN) as part of the ALICE detector upgrade project. This is the largest contract of its kind to be placed in the Netherlands in recent history. ALICE (A Large Ion Collider Experiment) is one of the 4 detectors of the Large Hadron Collider (LHC), CERN's well known flagship.

The ALICE detector can be considered as one of the most complex scientific instruments built by mankind. During the LHC shutdown in 2018 and 2019 CERN is planning to upgrade the ALICE central barrel detectors with a new low material and high-resolution silicon pixel detector in order to greatly improve features like spatial resolution, tracking efficiency and readout rate capabilities.



IBS scoort grote opdracht voor Alice-detector Cern

IBS Precision Engineering heeft een aanzienlijke order in de wacht gesleept bij Cern. Het Eindhovense bedrijf mag zes machines maken voor de assemblage van detectorchipparrays die onderdeel worden van de nieuwe Alice-detector. Alice is een van de vier detectoren van de Large Hadron Collider (LHC). In 2018 en 2019 trekt Cern tijdelijk de stekker uit dat experiment voor een grootschalige...

Play to your strengths:

Meeting tough ultra precision and metrology challenges is what we do.

■ IBS DELIVERS FIRST SENSOR MODULE ASSEMBLY MACHINE TO CERN FOR DETECTOR UPGRADE

ALICE POWERED BY **ALICIA**

In the spring of 2015, IBS Precision Engineering was awarded a major contract by CERN as part of the ALICE detector upgrade project. Just over one year later, the first sensor module assembly machine, called ALICIA, that was developed and constructed for this upgrade by IBS, passed the site acceptance test at CERN. Six more machines will be delivered by IBS to sites around the globe. Key success factors of the ALICIA development project were system integration and flexibility.



Assembly sequence



Understanding the true meaning of **precision**





Thank you

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