

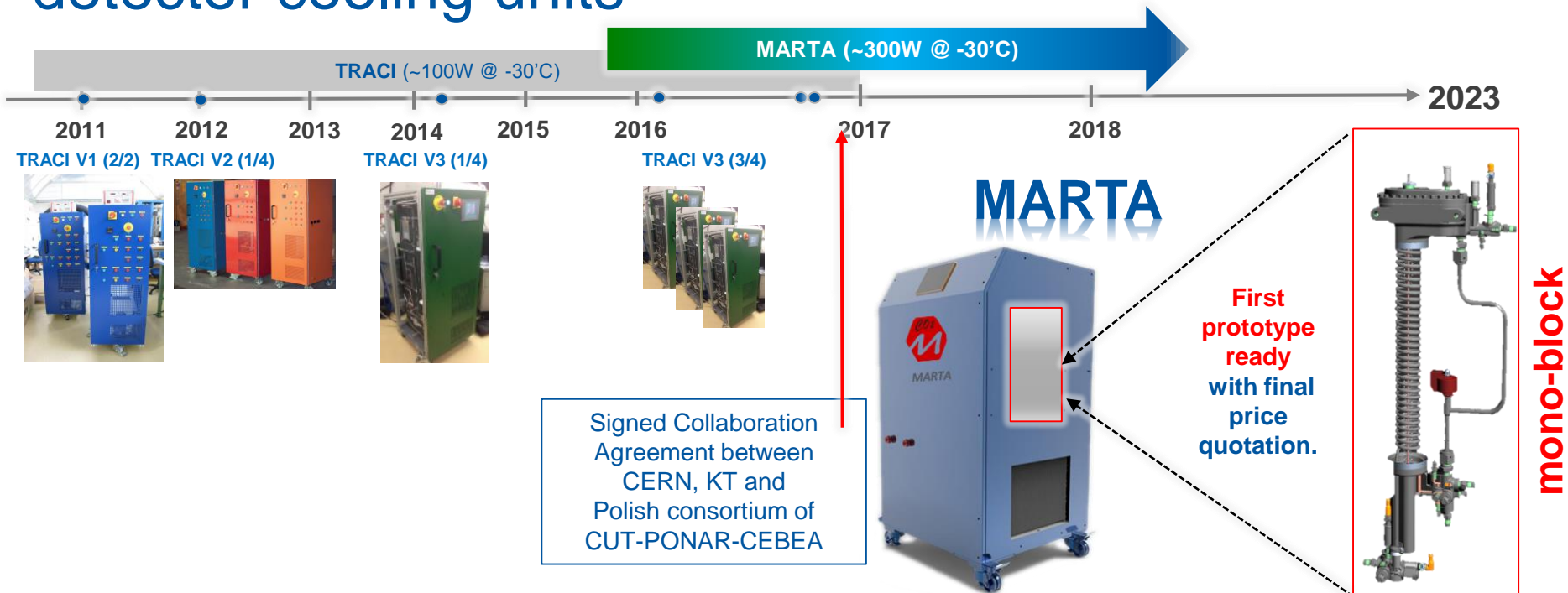
KT for detector cooling applications

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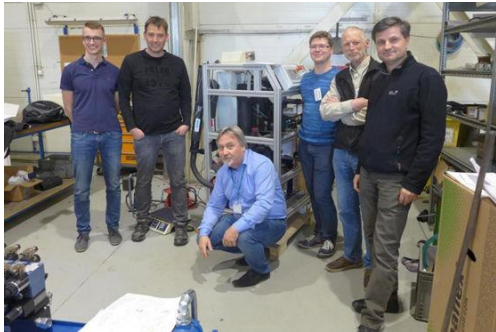
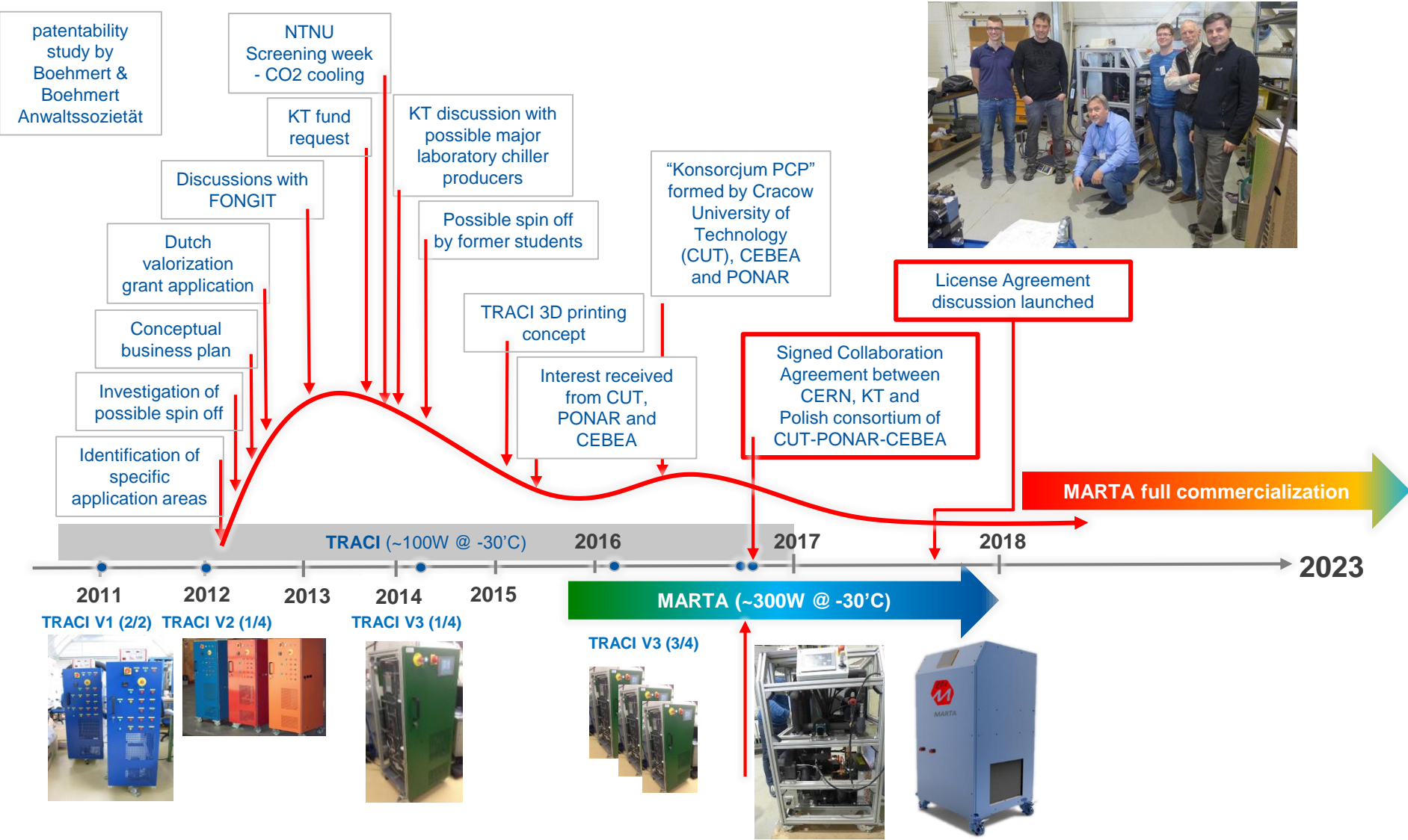


Industrialization of the I-2PACL CO₂ portable laboratory detector cooling units



- Industrial evolution of **TRACI** to **MARTA** (**M**ono-**b**lock **A**pproach for **R**efrigeration **T**ransportable **A**pparatus).
 - **Optimization of cost and size.**
 - Industrial manufacturing standards and techniques – **mono-block.**
 - Improved cooling capacity to ~300W @ -30°C.
 - Industrialization of LUCASZ cooling plants is also under consideration.

KT support in TRACI to MARTA technology transfer



Patent process

- Patentability study by Boehmert & Boehmert Anwaltssozietät
- The IP of the I-2PACL is owned in a shared patent 50% by CERN and 50% by Nikhef
- CERN quota of the incurring costs for patent application and maintaining is fully supported by KT budget
- Patent granted on Friday September 9th, 2011

Collaboration agreement

- Initial discussion with KT to use appropriate template according to the project is mandatory.
- Collect important information before drafting agreement:
 - Legal position of the industrial partner.
 - Project time line with different project phases and exact dates.
 - Define foreseen investments FTE or money or material form each partner.
 - Define the way how the knowledge transfer is made.
 - Provide each partner profile description and background related to the project.

Simple? Looks so 😊, but it took us 9 months to agree on all details !!

Commercial discussion

- License agreement must be followed up with KT and KT legal advisor.
- Best procedure to grant permission for production shall be defined ahead.
- Strategy:
 - Legal entity of the partner
 - Role of each partner. I.e. Who will be manufacturing the devices?
 - Who will be selling the devices?
 - What is the CERN intellectual property required by each partner.
 - Will any additional CERN input be required in order to use the intellectual property?
 - Specific deadlines/timescales?
 - Business plan for market penetration, including:
 - a. Field(s) of application and geographical market(s).
 - b. Timeline of manufacture, marketing and sales.
 - c. Marketing activities, including customer target groups.
 - d. Estimated sales over next 5 - 10 years – including number of units sold, price per unit, operating profit margin, etc.

Looks clear 😊, but it takes time and serious discussions shall be started well ahead launching official sale!