

The Curious Cryogenic Fish

Short description of the aim(s) of the Project: develop a **robotic device** performing **visual inspections** (and other diagnostic measurements) inside **cryostats**.



Current status of progress:

% of deliverables completed so far: 50

% of budget (100 kEUR) spent so far: 61

Any remaining uncertainties w.r.t planned deliverables

No, but outcome of prototypes in constructions not known

Yes;

Using students (PhD/MSc/BSc) in the project?

No

Yes; one PhD student

Any interactions with other funded ATTRACT projects so far?

No

Yes; (project names...)

If your project were to be selected for ATTRACT Phase 2:

How would your technology scale up to become an industrial product/system?

Once all feasibility studies are completed, the engineered solutions need to be simplified and cost efficient production/operation has to be achieved.

With who you would need to partner for this to happen? (No names, just profiles of type of organizations)

Experts in robotics and motion control; continued partnership with cryogenics experts; experts on cold electronics; possibly space agencies for research on [RTG](#);

Have you already discussed this with KT Group?

No

What applications will you demonstrate with value for science, industry and society? (Examples)

If industrialised, the application could become widely spread for large cryostats inspections both in science (e.g. DUNE) and industry (in particular liquid gas transport).

Any comments, remarks or observations you would like to make to CERN?

Breakthrough R&D on spare time is very hard to do. We are preparing an extension request for the project with a modified fund sharing.