



Project AIR

Validation of regulatory cleared AI software for radiology

Vendor information, v1.0

June, 2021

Radboudumc

Summary

Why

- Multiple tools for similar tasks
- Lack of public evidence on (compared) performance
- Increase transparency in the AI for radiology market

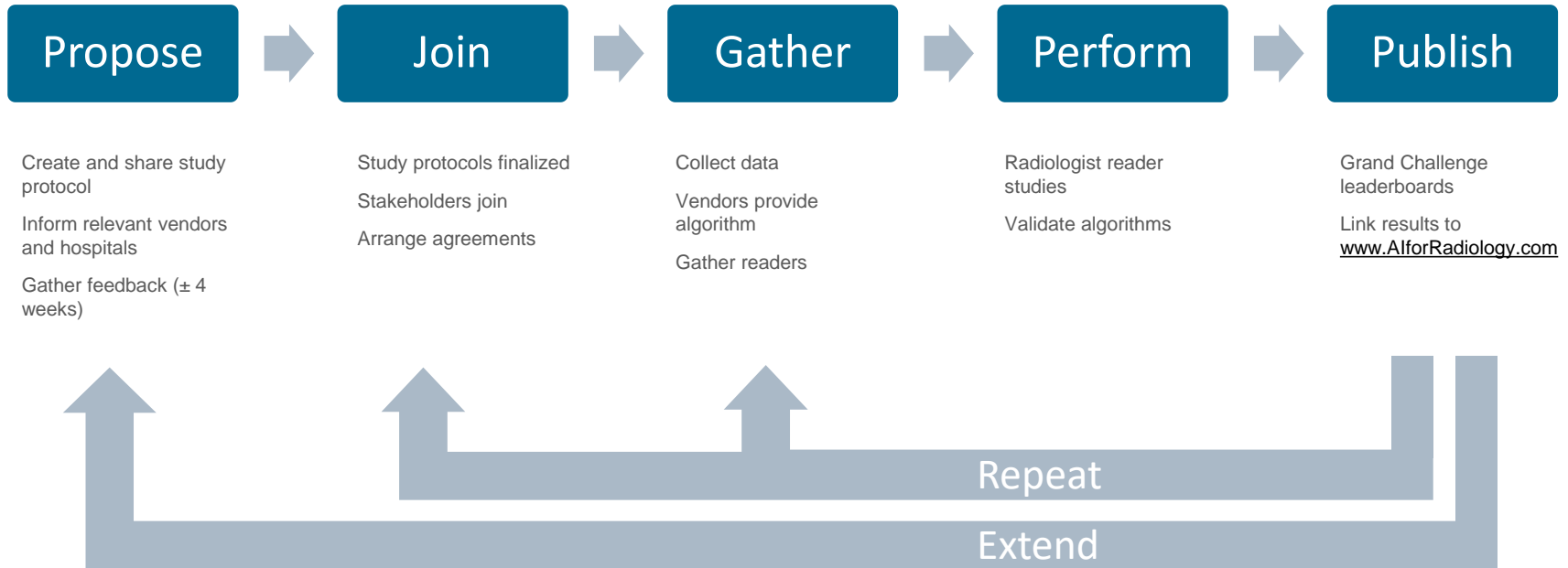
How

- Setting up a physical and digital infrastructure for technical validation studies
- The process is repeatable with:
 - New use cases
 - New vendors
 - Algorithm updates

What

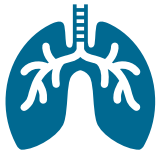
- Performing independent technical validation studies
 - Multi use case
 - Multi center
 - Multi vendor
- Equal hidden test set
- Equal reference standard
- Reader studies to provide context
- Results are publicly available

Study process



Initial use cases

- We start with three use cases which can be expanded to any task for which multiple cleared AI products are offered.
- All vendors offering a product for such task that are listed on www.AIforRadiology.com get an invitation to join.



**Lung nodule detection
on
chest radiographs**

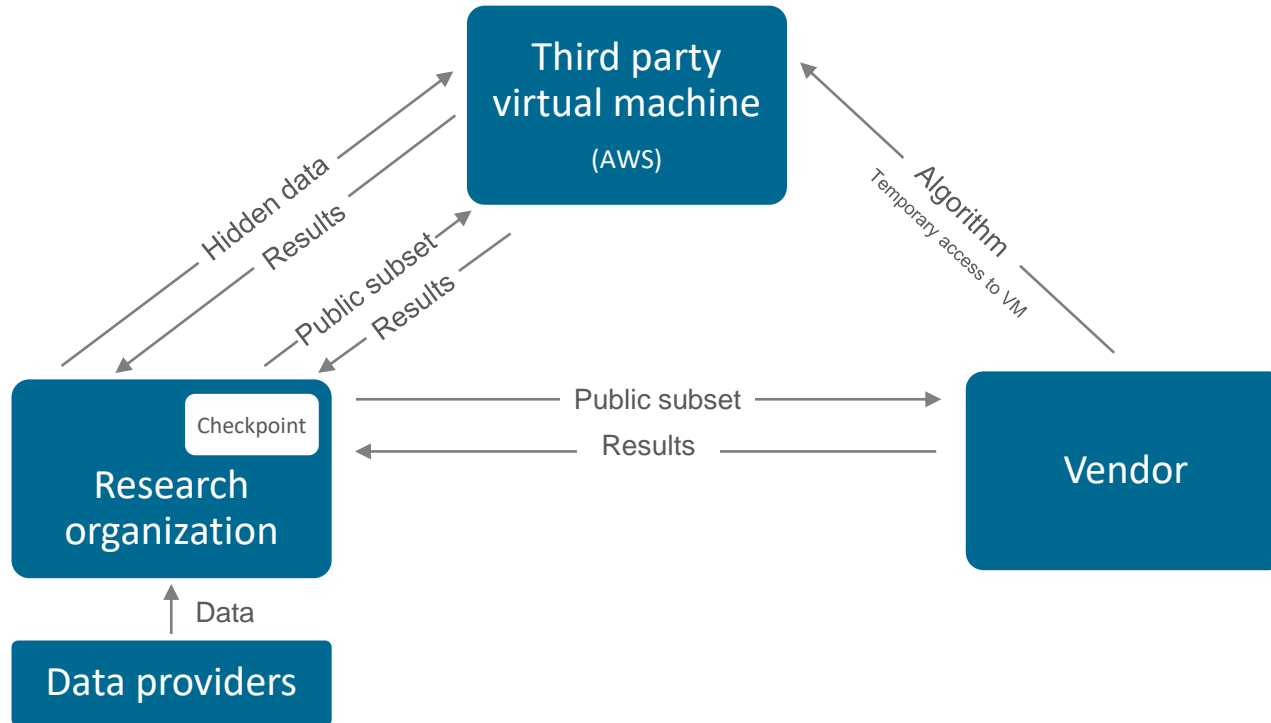


**Bone age prediction
on
hand radiographs**



**Large vessel occlusion detection
on
brain CTA**

Technical process



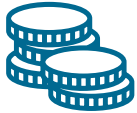
IP and safety of algorithms

- We understand that your proprietary algorithms should remain safe. Therefore, we choose a secure, independent third party (AWS) to host both the data and the algorithm. You may hide/license/protect your code/software, only a data entry point and prediction exit point are necessary. The virtual machine will be deleted after the validation.
- A small, public subset of the data will be shared with you to ensure the outcomes from the virtual machine are as expected (the checkpoint). The images from the subset will also function as examples for publication.

Publication

- Results will be shared as a leaderboard on www.Grand-Challenge.org.
- Participating vendors will be prioritized on www.AlforRadiology.com and results are showcased.
- Validation may be repeated as new algorithms are introduced or algorithms are updated. All online published results become updated accordingly.
- A single article will be submitted to a peer-reviewed journal about the first set of use cases and vendors to demonstrate the framework and process. Participating vendors will be mentioned in the acknowledgements.

Why join as a vendor?



Free validation study
on an independent
dataset



Compare results with
radiologist
performance



Benchmark your
algorithm with
competitors



Use results for sales
and marketing

How do I join?

Please contact:

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