

# Airborne Risk Indoor Assessment in the context of SARS-CoV-2

## Project Team:

A. Henriques, L. Aleixo ([CERN/HSE](#)),

N. Mounet ([CERN/BE](#))

E. Sandner, N. Tarocco, Paolo Tedesco, Thomas Van Vark,

Andreas Wagner ([CERN/IT](#))

Luca Fontana, Matteo Manzinello, Alice Simniceanu ([WHO](#))

# Airborne transmission model

- 5-tier



+100 model parameters

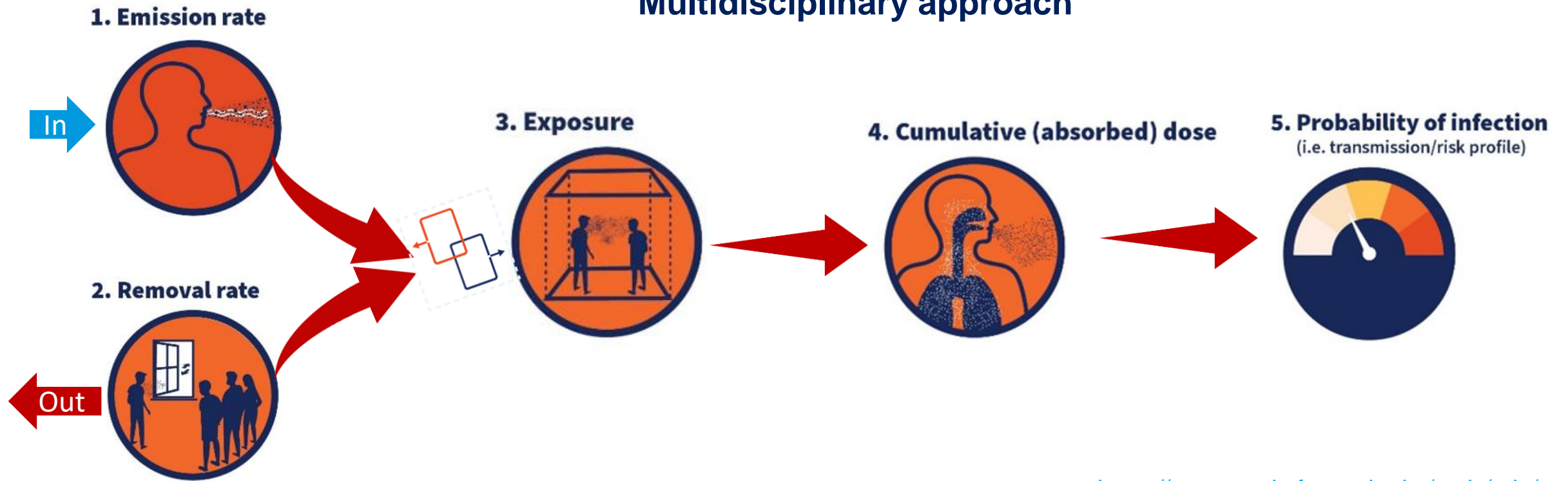


Systematic literature review



Stochastic (plain Monte Carlo)

## Multidisciplinary approach



<https://partnersplatform.who.int/tools/aria/>

# WP4: Systematic Review Automation

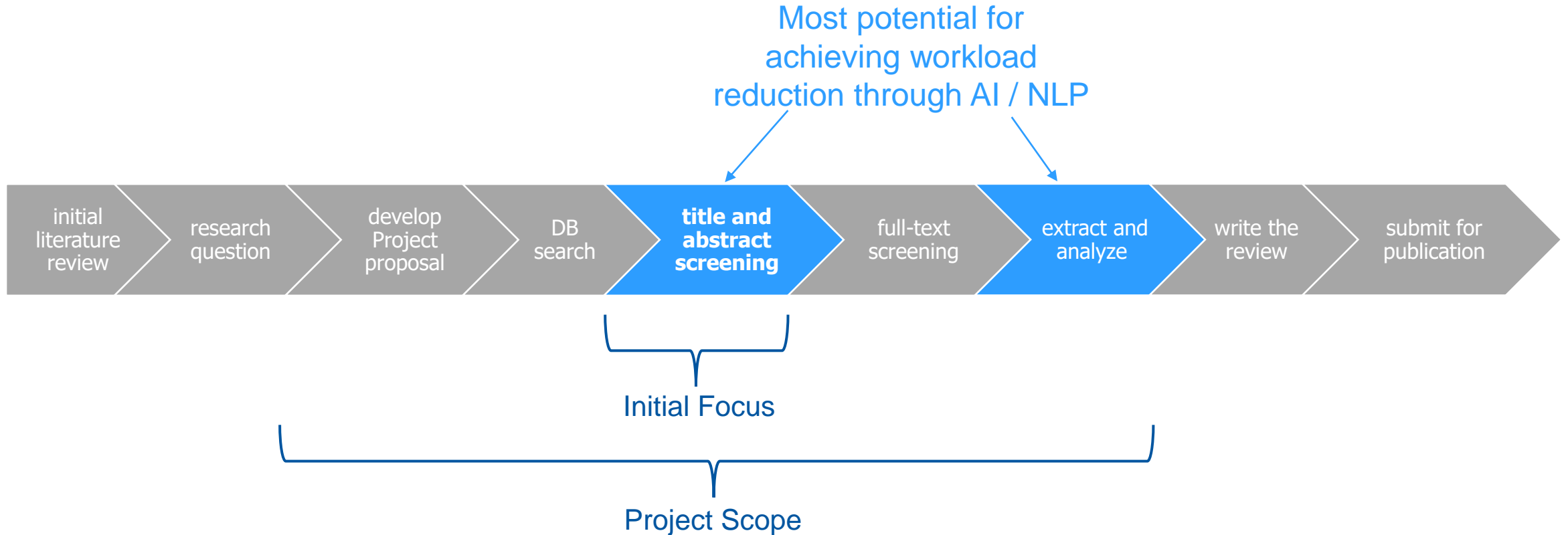
- Model is based on >100 parameters.
- To ensure evidence-based results, these parameters must be evaluated using systematic reviews.
  - **Developing a tool to streamline and automate the systematic review process.**

## Requirements:

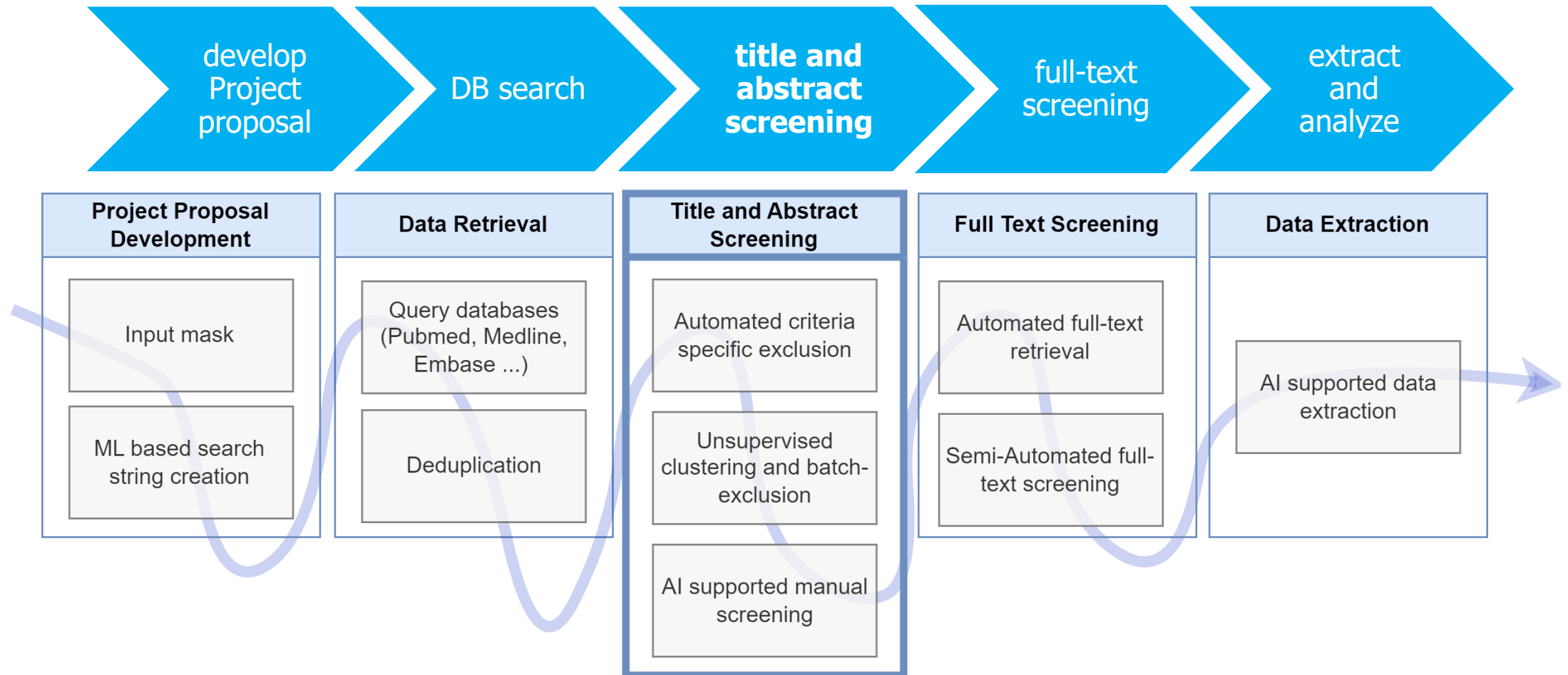
- Reduction of human working hours
- Recall at least as good as human
- Transparent and comprehensible decision making



# Systematic Review Process



# NeutrinoReview: a new Review Management Tool



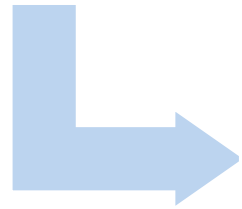
# Exclusion-criteria specific classification

## Possible criteria:

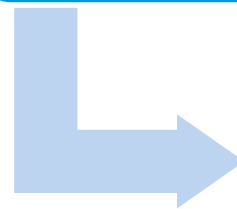
- Language
- Study design
- Population
- Result representation



- Build a human-annotated dataset to train the model.

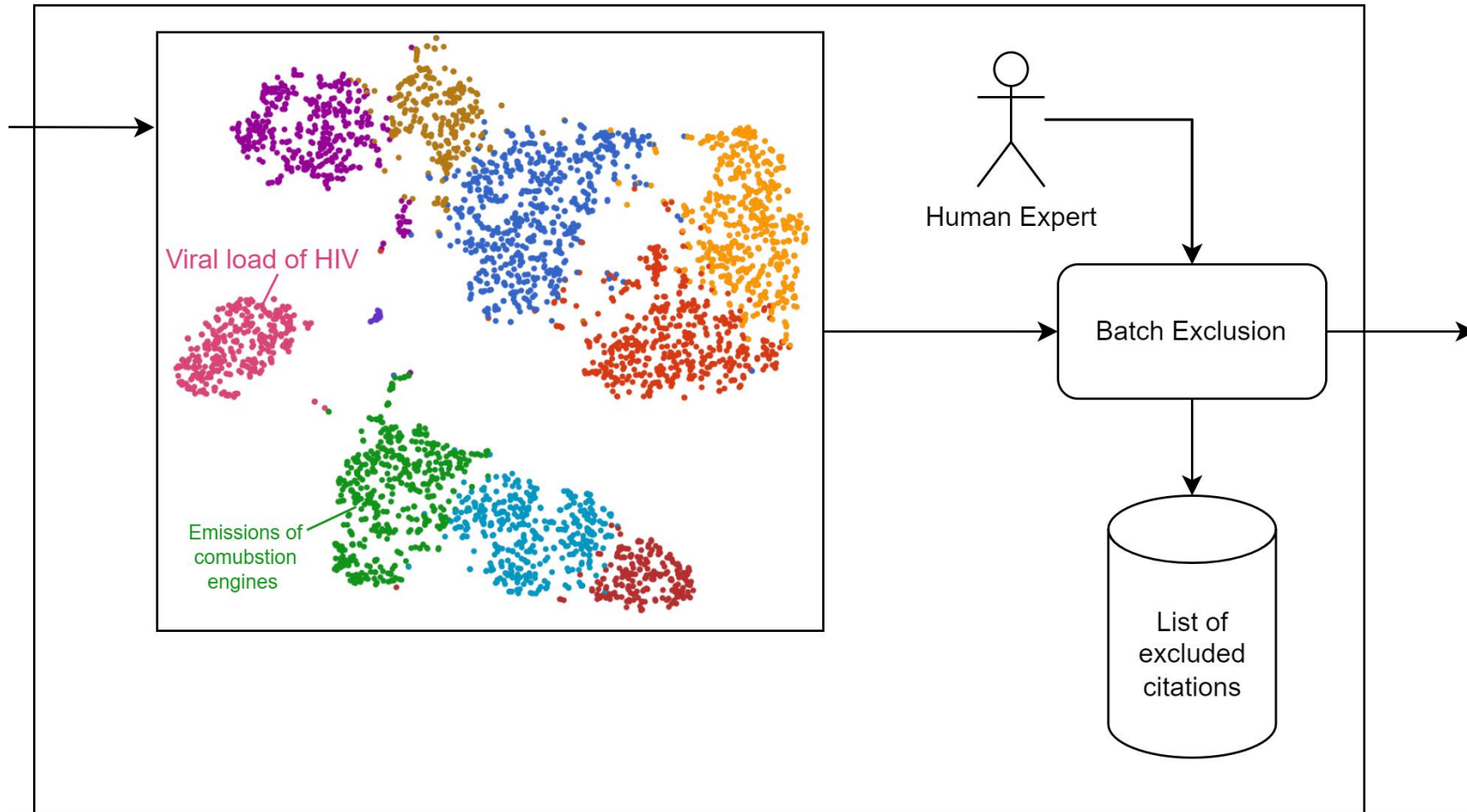


- Train and test a Machine Learning classifier.



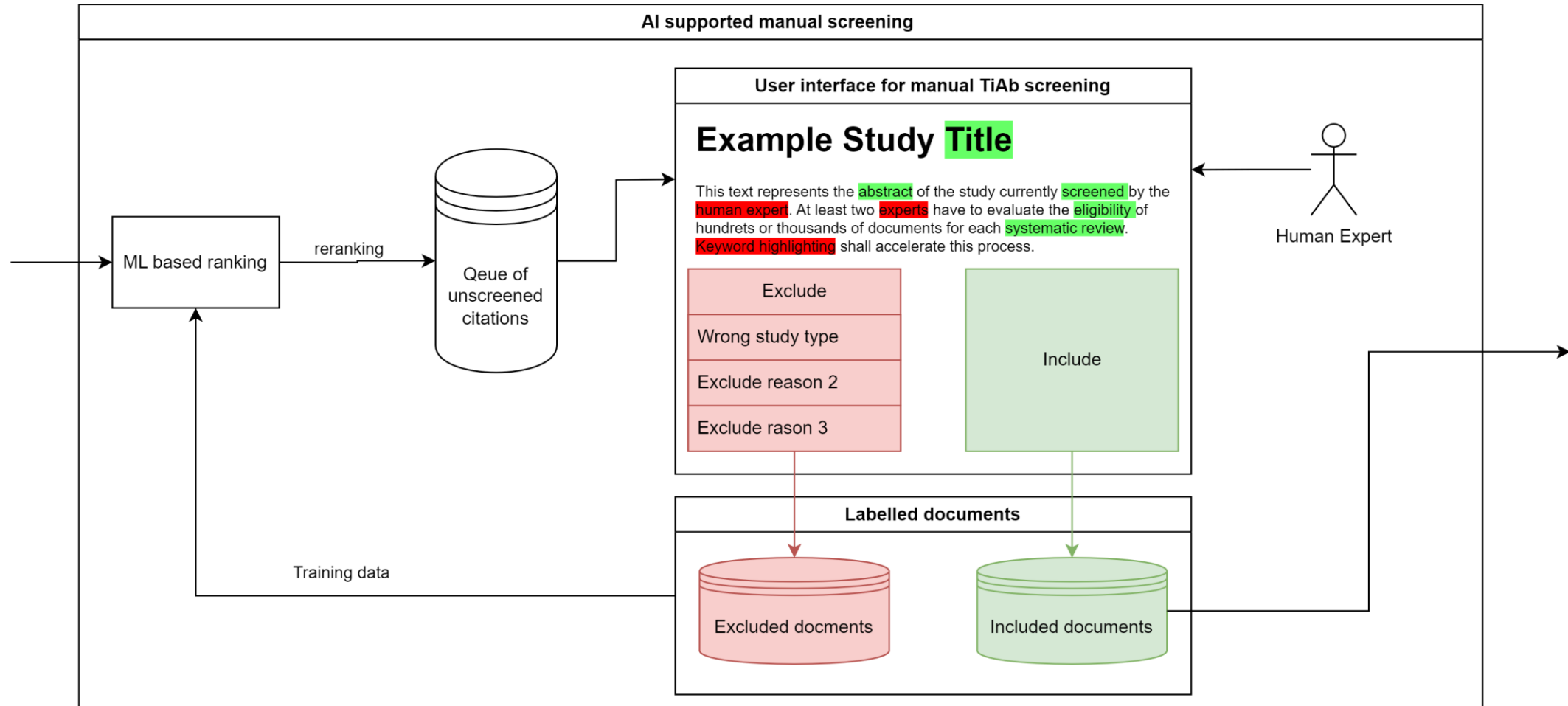
- Test to which extend the classifier reduces the number of papers in the screening process.

# Unsupervised Learning and Batch Exclusion





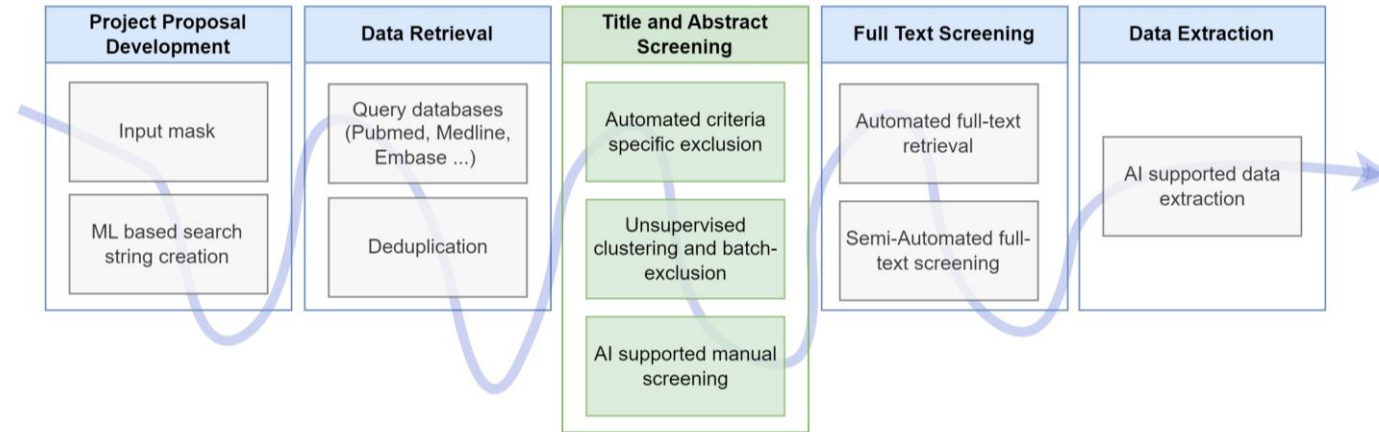
# Supported manual screening



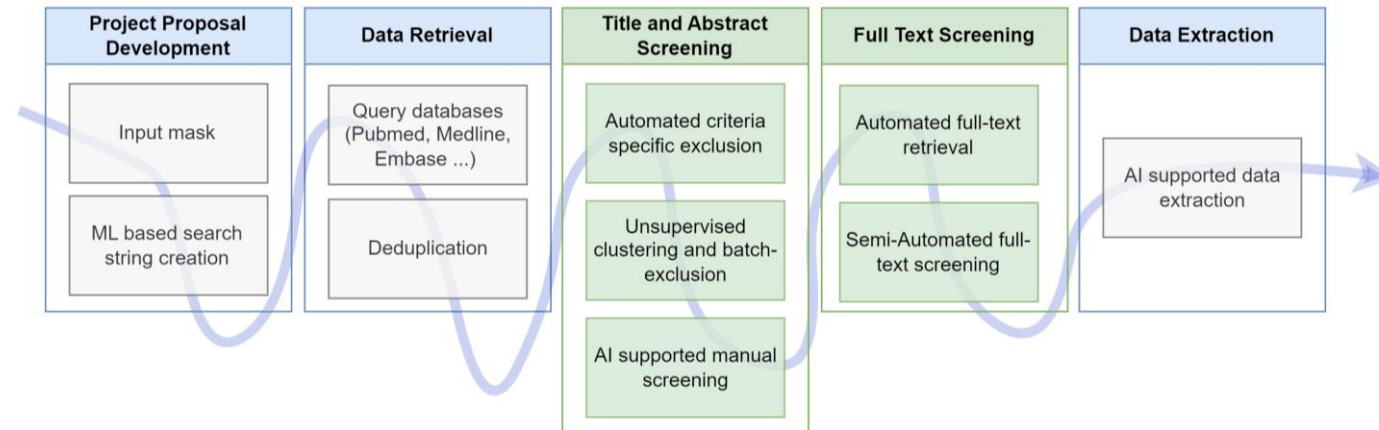


# Milestones

September 2024:

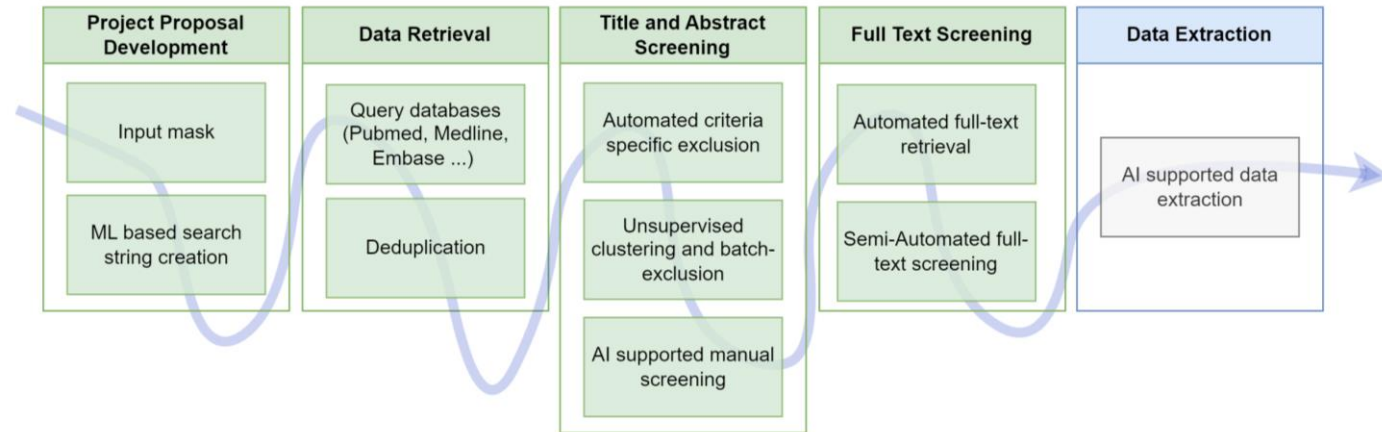


March 2025:

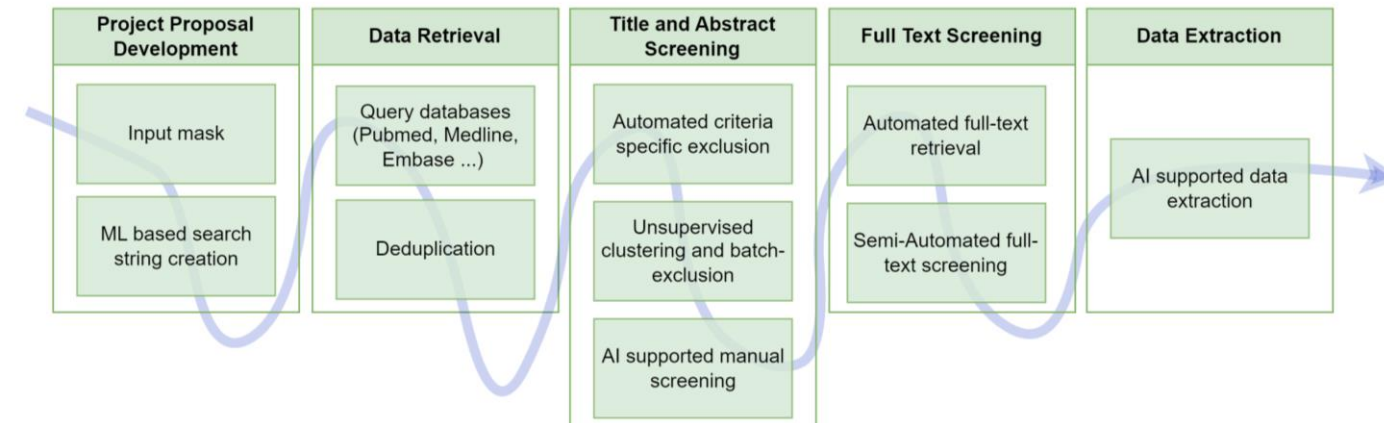


# Milestones

January 2026:



November 2026:



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# NeutrinoReview:

- Motivation:  
Reduce workload of systematic review to retrieve evidence based values for the CAiMIRA / ARIA model.
- Goal:  
Develop an open source review management tool.
- Initial focus:  
Title and abstract screening.
- Scope:  
Cover the whole process from proposal development to data extraction.

Contact: [elias.sandner@cern.ch](mailto:elias.sandner@cern.ch)