innovative health initiative

HEU EFS
HARMONISED APPROACH TO EARLY FEASIBILITY STUDIES FOR MEDICAL DEVICES IN THE EUROPEAN UNION

# HEU-EFS Harmonised approach to Early Feasibility Studies for Medical Devices in the European Union

## Progress and preliminary results

Giuditta Callea (PI | Bocconi University)

MDCG Clinical Investigation and Evaluation Working Group | 15 November 2024

# Agenda

1. Progress of the project
2. Preview of upcoming deliverables results
3. What's next
4. Q&A

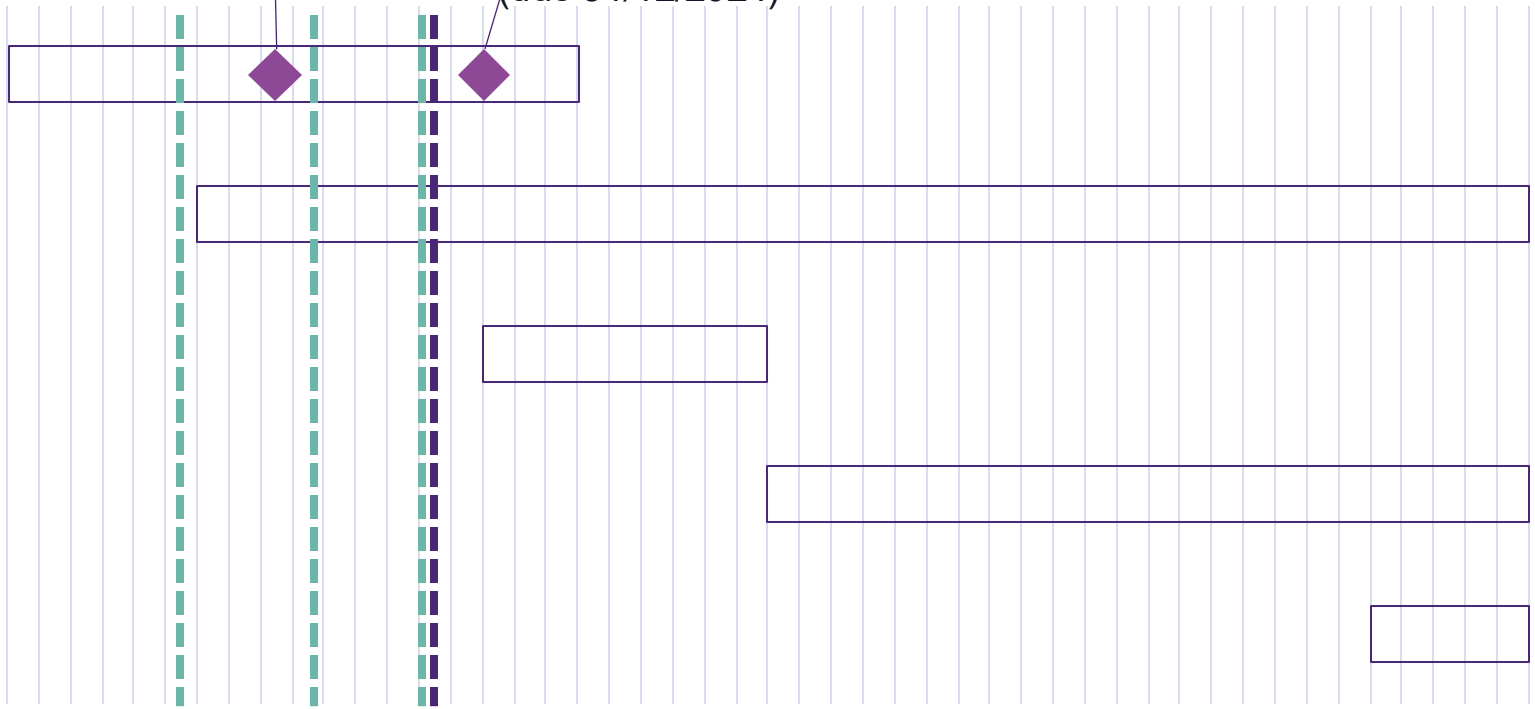
# Progress of the project

**D2.1** EU regulatory framework and international standards (submitted 31/07/2024)

**D1.1** Characteristics, gaps, and best practices of pre-market programs
**D1.2** Pre-Market Program Database
**D1.3** Characteristics and state of play of EFS
**D2.4** Current EU regulatory framework for clinical evidence generation for MDs and DHTs and relations with the future EU EFS (due 31/12/2024)

**Start 01/10/2023**

**End 30/09/2027**

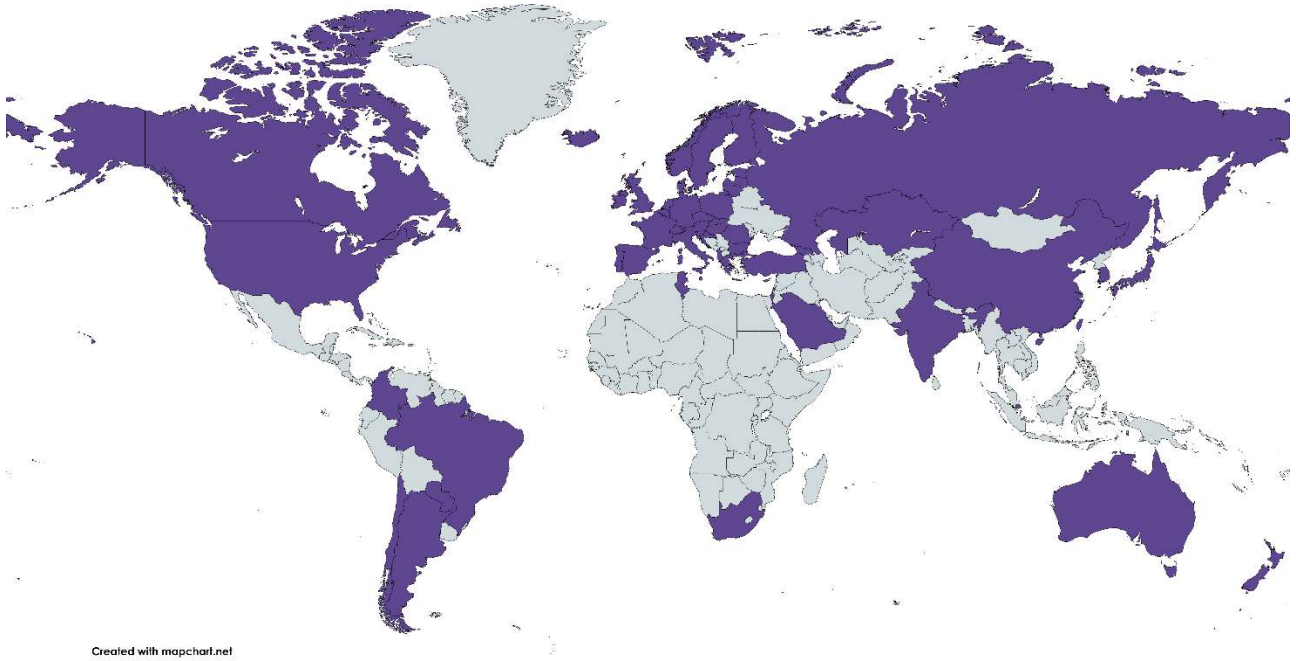



For the establishment of an EFS Program within the EU, with a focus on ensuring patient safety and enhancing the EU single market competitiveness.

# Pre-Market Approval Pathways

## AIM

Understand the characteristics of pre-market clinical investigations for MDs approval pathways in 56 selected countries.




## METHODOLOGY

1. Design Pre-Market Approval Pathways DB (PMAP-DB)
2. Data collection from public sources and compilation of the DB
3. Validation
   - By NCA for EU & EEA (13 out of 30)
     - Additional validations are welcome
   - By HEU-EFS partners for non-EU (26/26)
4. Analyses
5. Discussion of results and recommendations
6. Scientific paper: NCAs are invited to be coauthors

We want to sincerely thank DG SANTE and CIE members for their contribution to the research

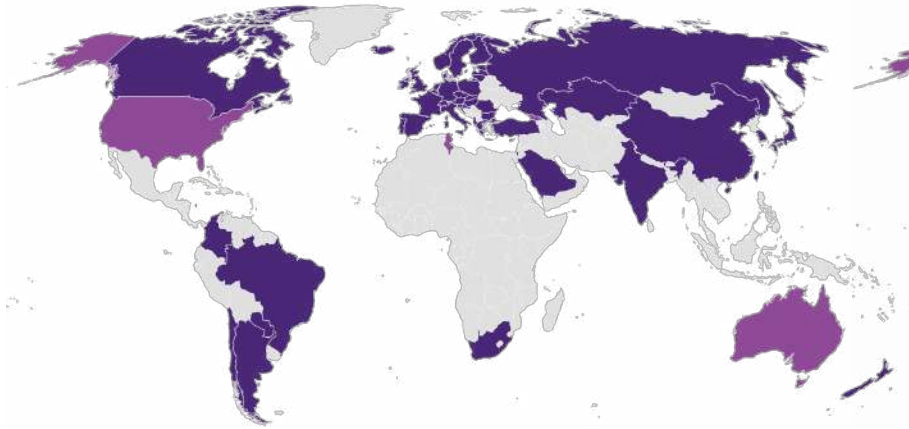
# Pre-Market Approval Pathways

## Mandatory documents accompanying the application for clinical investigation

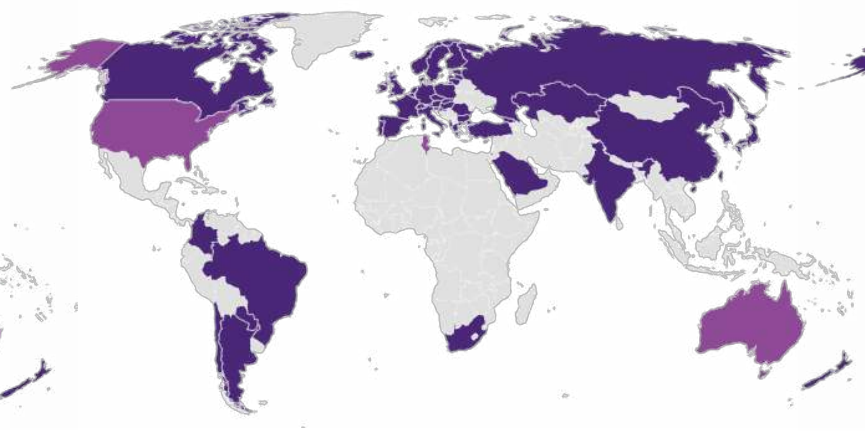
Yes, mandatory

Yes, optional, No, or n/a

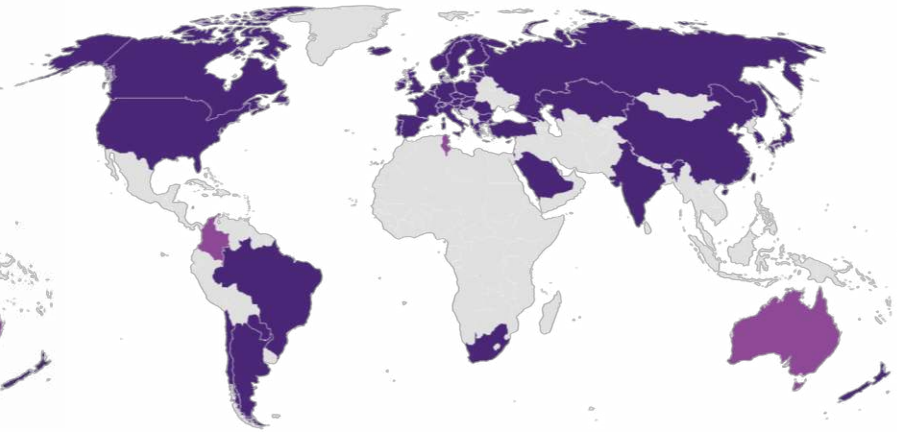
### Application form (n=52)



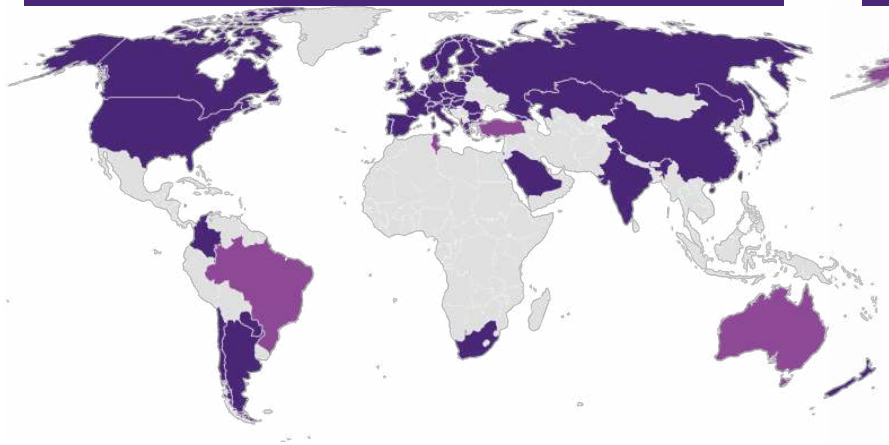
### Investigator's Brochure (n=54)



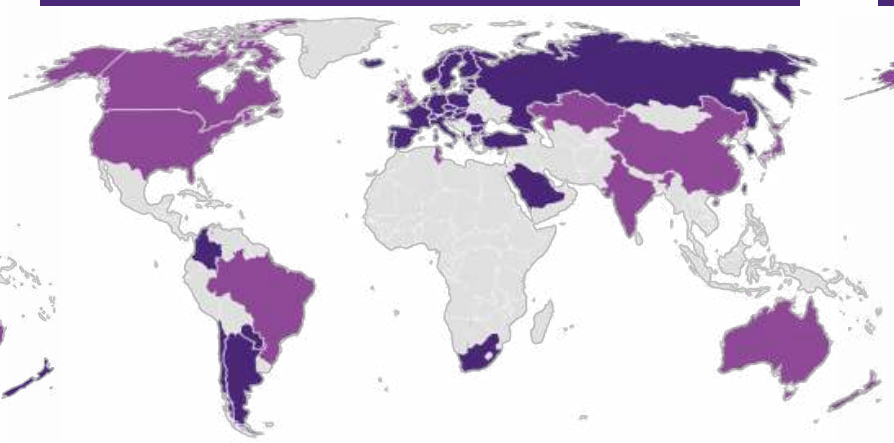
### Clinical Investigation Plan (n=53)



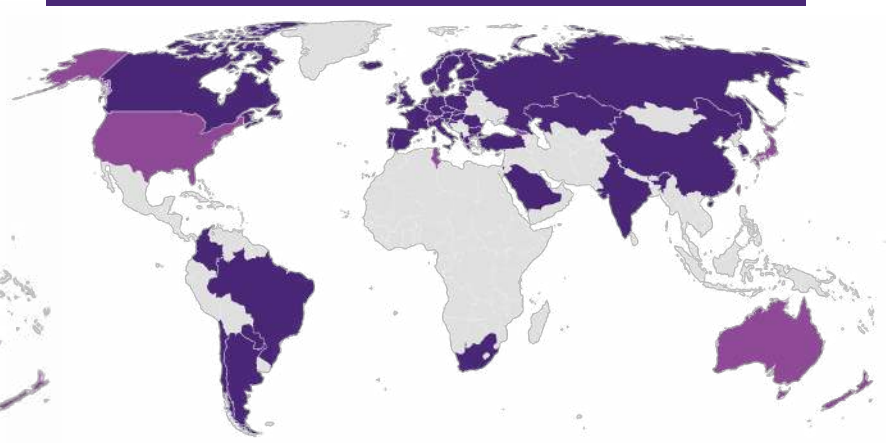
### Informed Consent Form (n=50)



### Proof of insurance cover (n=44)



### Copy of ethics committee opinion (n=47)



# Pre-Market Approval Pathways

## Existence of public database of pre-market CI of MD (n=15)

**APAC** Australia, New Zealand, Japan, Republic of Korea, Taiwan
**EMEA** Israel, Russia (only approved studies), Kazakhstan
**EU** Croatia,* Germany,* Netherlands, Czechia
**LATAM** Argentina, Brazil, Paraguay
* Not validated

## Existence of performance monitoring system of pre-market CI of MD (n=5)

**APAC** Australia
**EU** Portugal
**LATAM** Brazil
**NAFTA** Canada (only for trade association), USA

## Possibility to reimburse investigational devices (n=3)

**EU** France, Belgium
**NAFTA** USA

# Challenges of pre-market CI of MDs in Europe

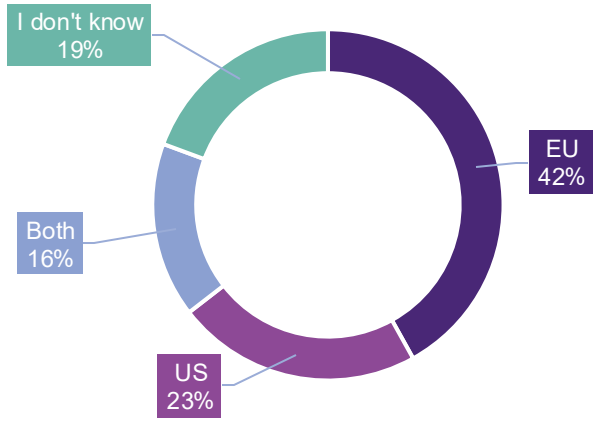
## FOCUS

- Challenges of planning and conducting pre-market CI of MDs in the pilot phase in Europe

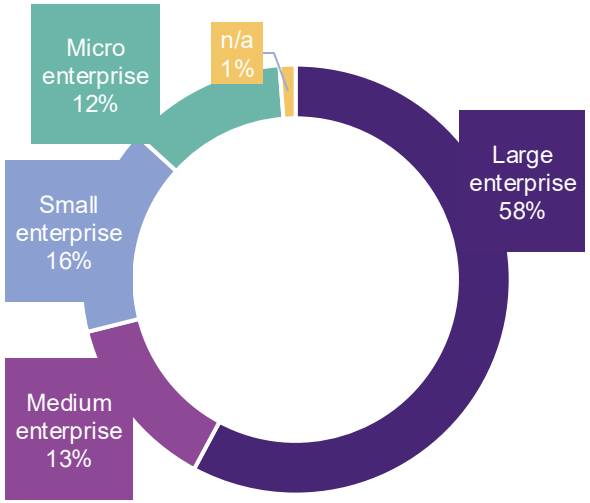
## METHODOLOGY

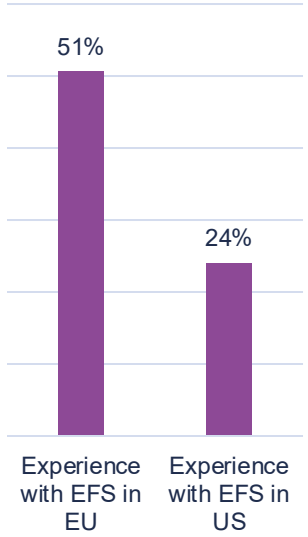
- Anonymous, online survey implemented on Qualtrics, open from 18 Oct-11 Nov 2024
- Approved by Bocconi University Ethics Committee
- Distributed through HEU-EFS website, social media and consortium, and trade associations

## Favourite location for conducting pilot CI

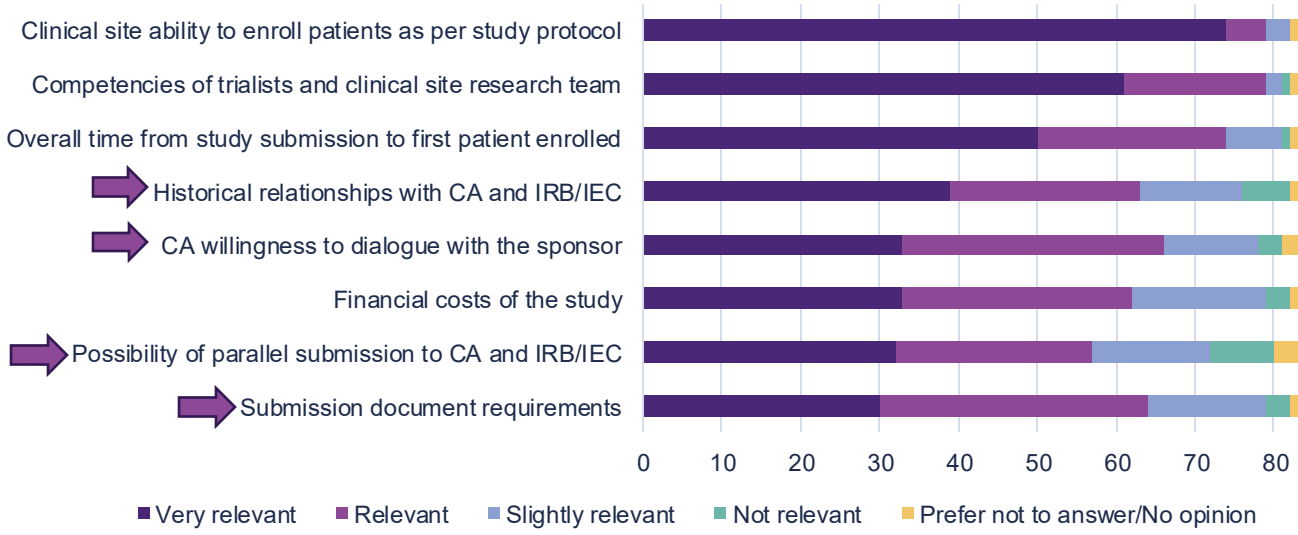



## The sample (n=83)



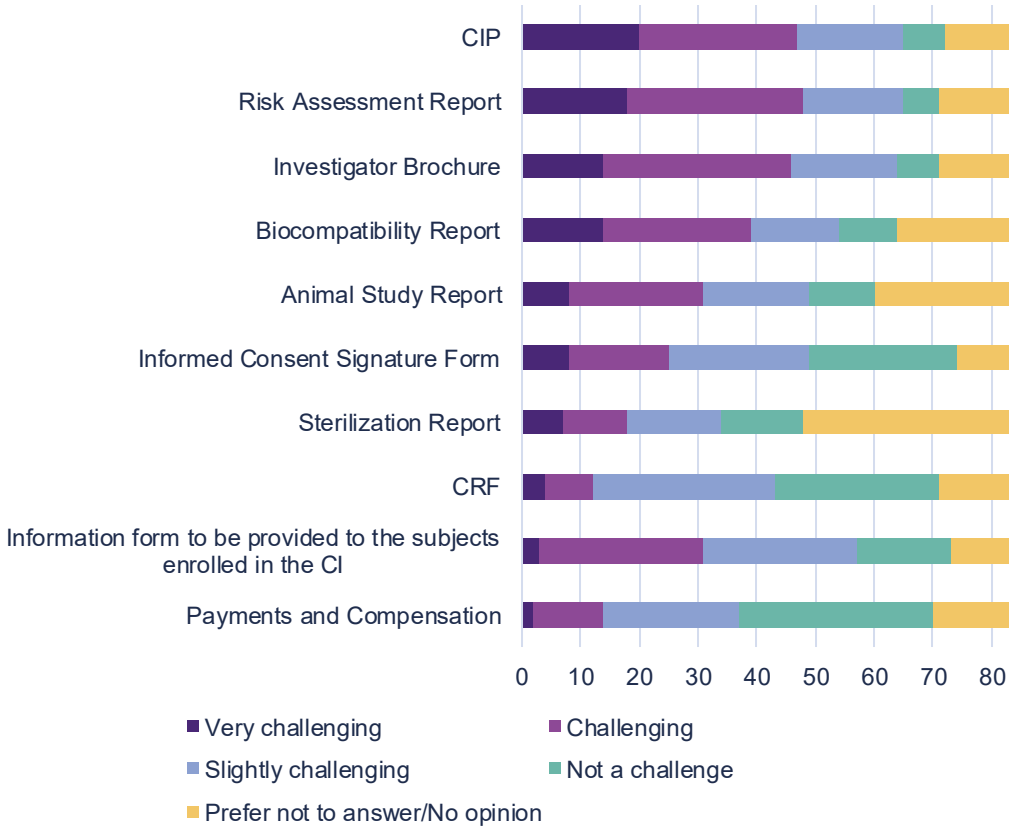




## Key criteria influencing the selection of the country

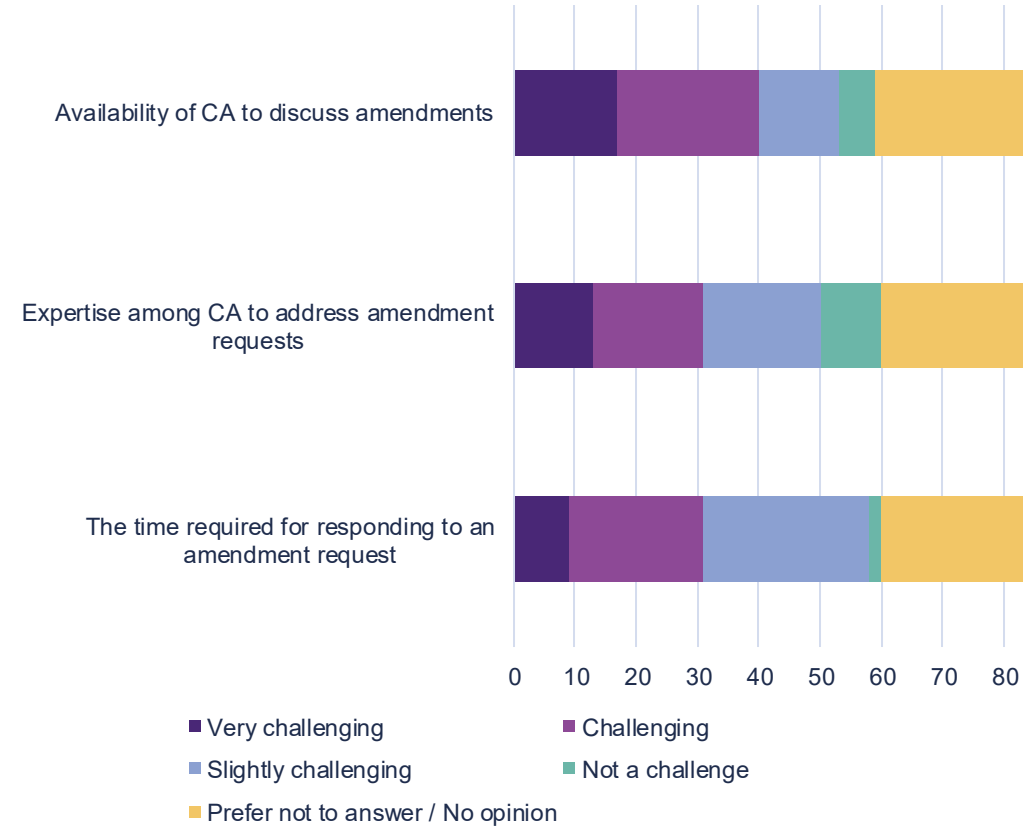


# Challenges in pre-market CI of MDs in Europe

## Most challenging documents to get approved by CA




## Challenges of the dialogue with CA when managing amendments to the CI

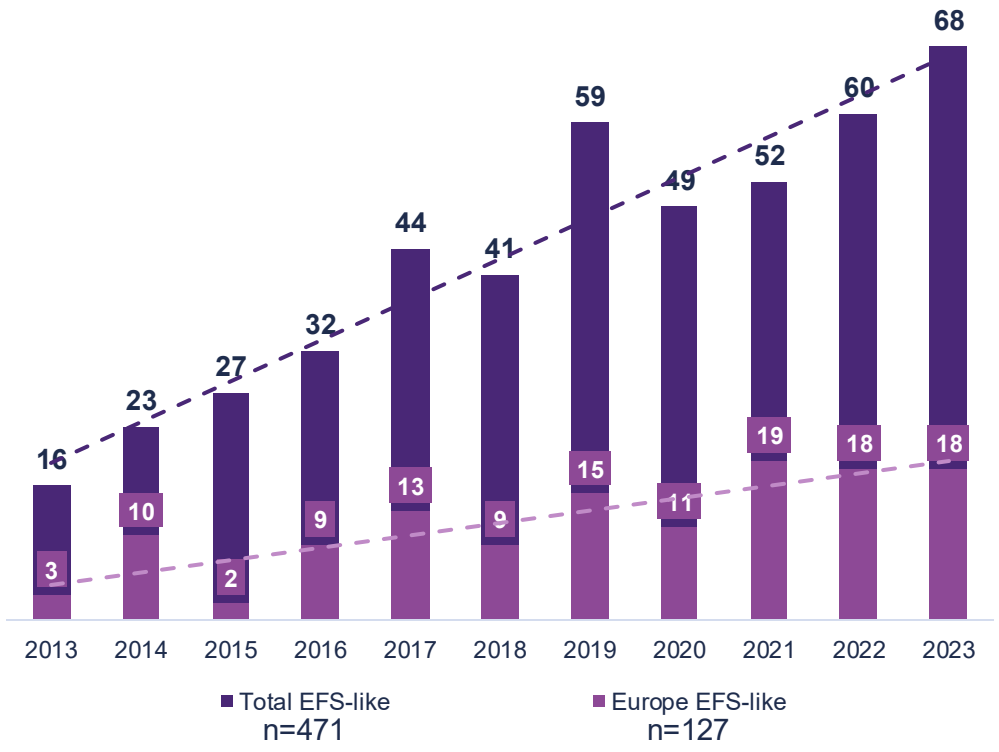


# Diffusion of EFS-like studies

**«EFS-LIKE» IDENTIFICATION STRATEGY IN CLINICALTRIALS.GOV**

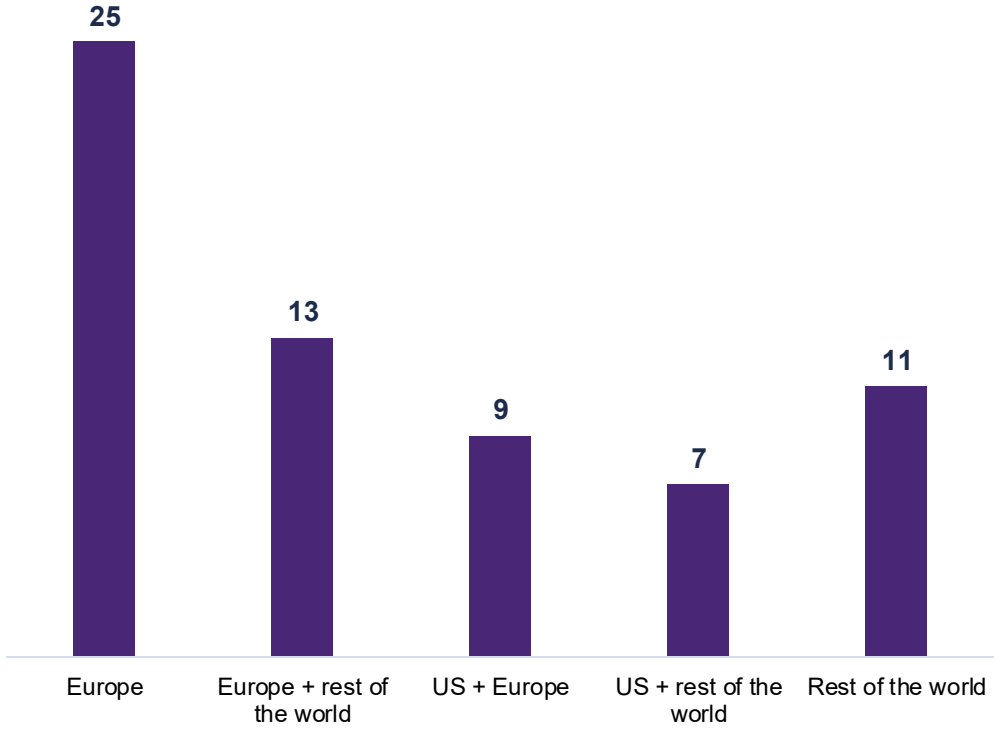
- **«early feasibility»** or **«EFS»** in title or summary of the study
  OR
- Study type: **Interventional** AND Estimated sample size **<= 30** AND Interventional mode: **single group assignment** AND Masking: **None** (Open label)

## Time trend of EFS-like studies 2013-2023*



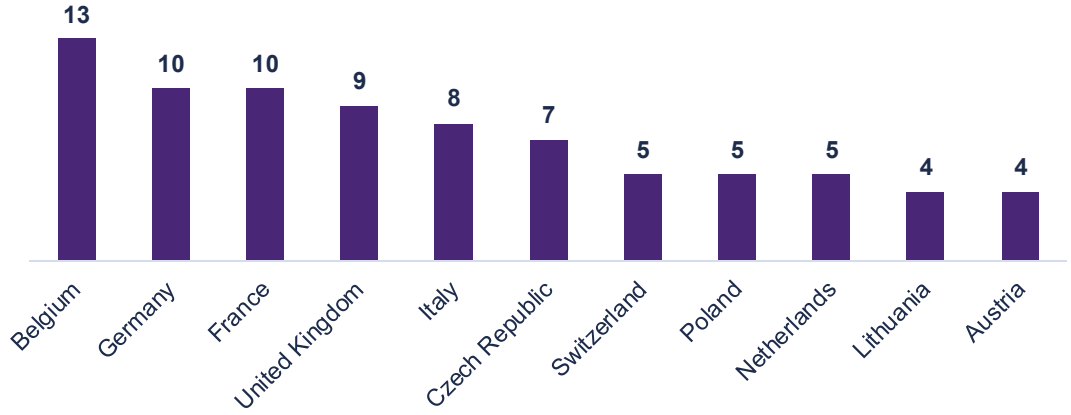

*Start year of the study

## Multi-country EFS-like studies 2013-2023 (n=65)



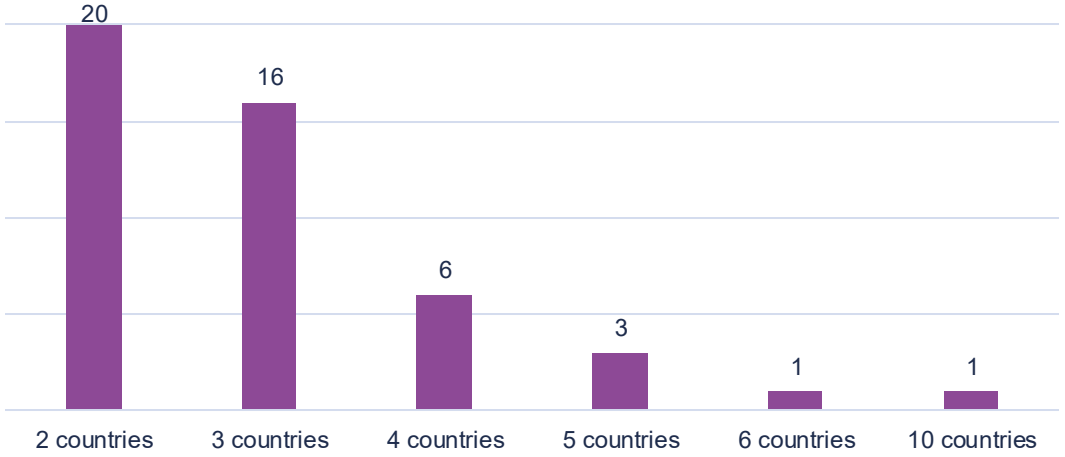
# European multi-country EFS-like studies

## Multi-country studies* by country

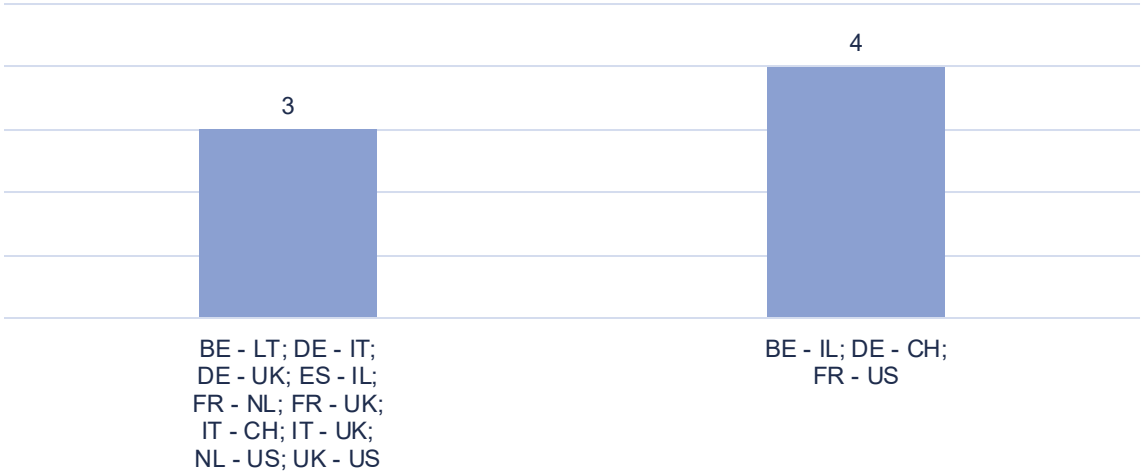



*Multi-country studies are counted in all countries

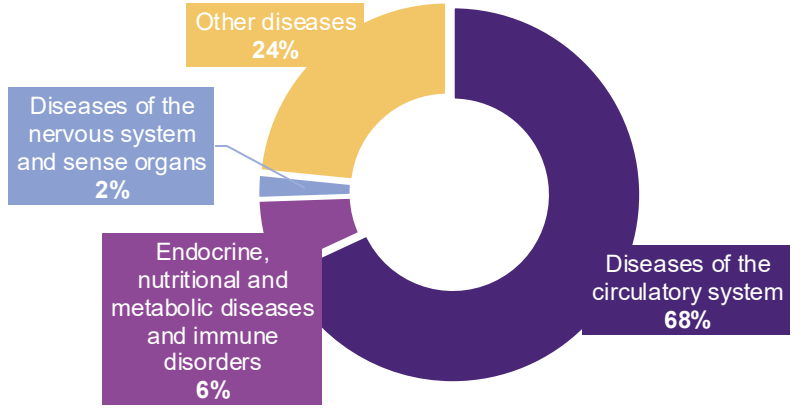
## Number of collaborating countries per study




## Most common collaborations among European countries




## EFS-like conditions (ICD-10 classification)



# Survey for National Competent Authorities

## AIM

- Explore
  - NCAs experiences with pre-market exploratory clinical investigations (CIs) of MDs at the pilot stage (first-in-human, early feasibility, and traditional feasibility CIs)
  - Resources and training needs related to the assessment of CI applications to conduct pre-market clinical investigations

## ETHICS APPROVAL

- Survey and informed consent already approved by Bocconi University Ethics Committee, under evaluation by Trinity College Dublin Ethics Committee

## SURVEY

- Online survey implemented on Qualtrics platform
- Time required for completion: 15 minutes
- 28 questions
  - Validation by NCA of Ireland, Italy, and Portugal (members of HEU-EFS Advisory Board)
- Participation is entirely voluntary. You can provide the information you are comfortable with
  - Each question has a “Prefer not to answer/No opinion” option
- Informed consent and link to the survey distributed by DG SANTE

# Survey for National Competent Authorities

## ELABORATION OF INFORMATION

- All information collected in the survey will be kept confidential, in accordance with applicable laws
- Responses will be anonymized
- Results will be analysed in aggregate, ensuring that individual responses cannot be traced back to you
- Data will be stored securely and will be accessible only to the research team

## USE OF THE RESULTS

- Results will be included in a confidential report for NCAs and a scientific deliverable
  - Level of disclosure to be discussed with NCAs
- Results will be shared only after presentation @CIE and validation by NCAs

## NEXT STEPS

1. Bocconi University shares survey (pdf) and informed consent through DG SANTE 7 days after TCD ethics approval (second half of November)
2. NCAs send the signed informed consent to Tom Melvin
3. Link to online survey shared through DG SANTE
4. Survey open for 2-3 weeks
5. Half day virtual meeting with NCAs for discussion of results in mid January (doodle will be circulated)
6. Preparation of report and deliverable
7. Reviews and comments by NCAs
8. Submission of outputs

# Contacts

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**Associate Professor of Practice**

**SDA Bocconi School of Management – Bocconi University**

**mailto giuditta.callea@unibocconi.it**

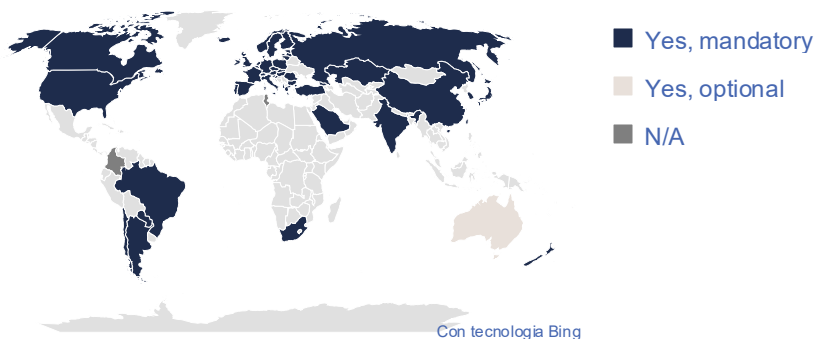
# Documents accompanying the application for clinical investigation

## Cover letter

## Application form

## Investigator's Brochure (IB)

## Clinical Investigation Plan (CIP)

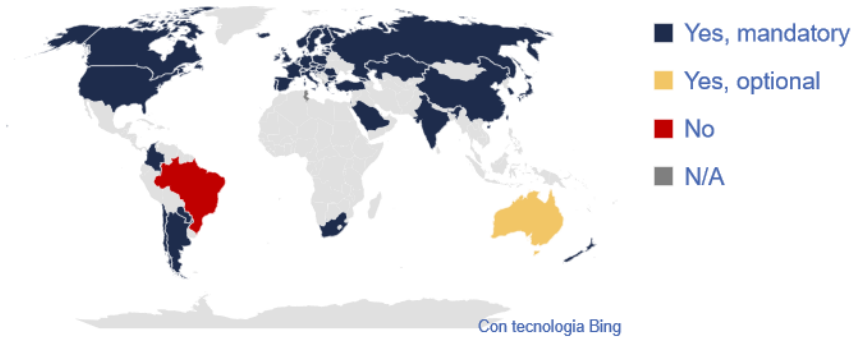


# Documents accompanying the application for clinical investigation

### Copy of the opinion of the ethics committee

### Case Report Form (CRF)

### Informed Consent Form (ICF)

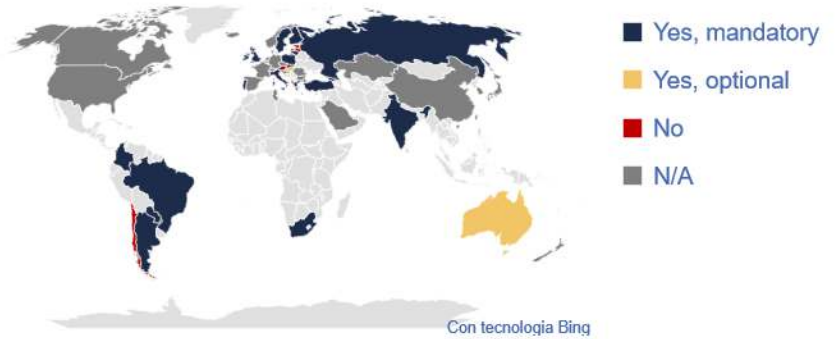



### Proof of insurance cover

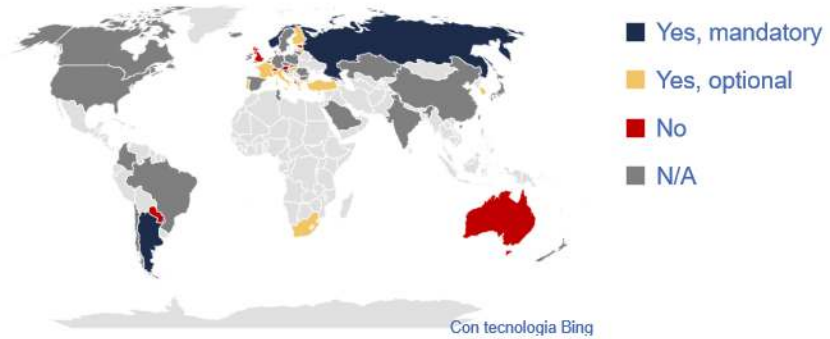
# Documents accompanying the application for clinical investigation

### Description of the arrangements to comply with the applicable rules on the protection and confidentiality of personal data and information

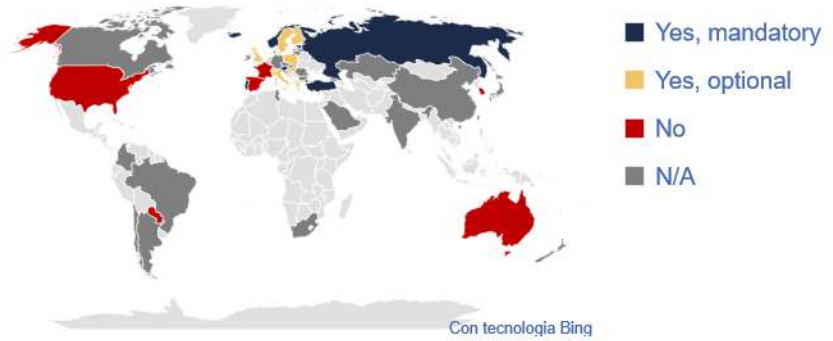
### Proof of payment of the fee




### Opinion of expert panels




### Notified Bodies CE certificates



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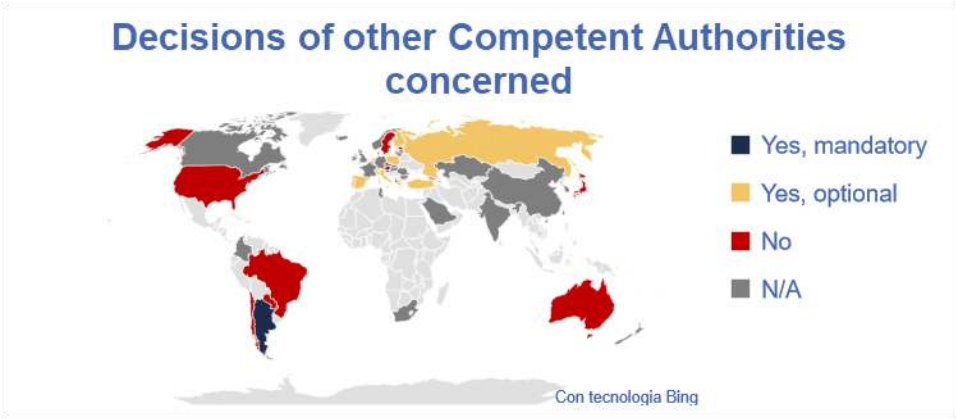


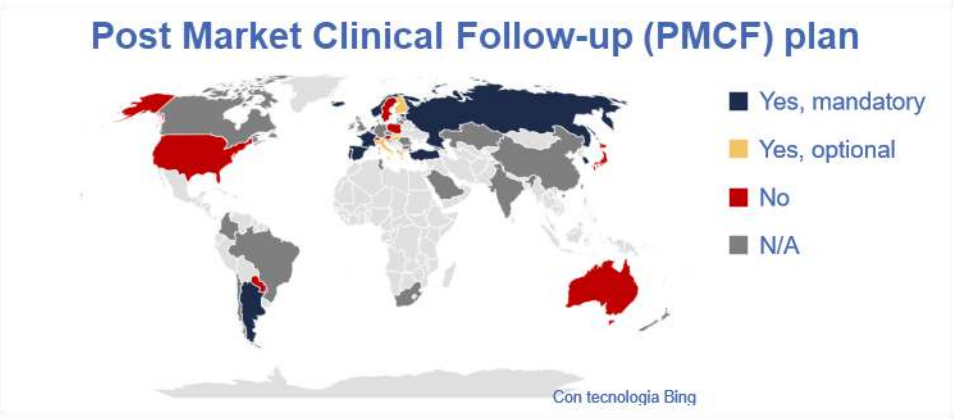


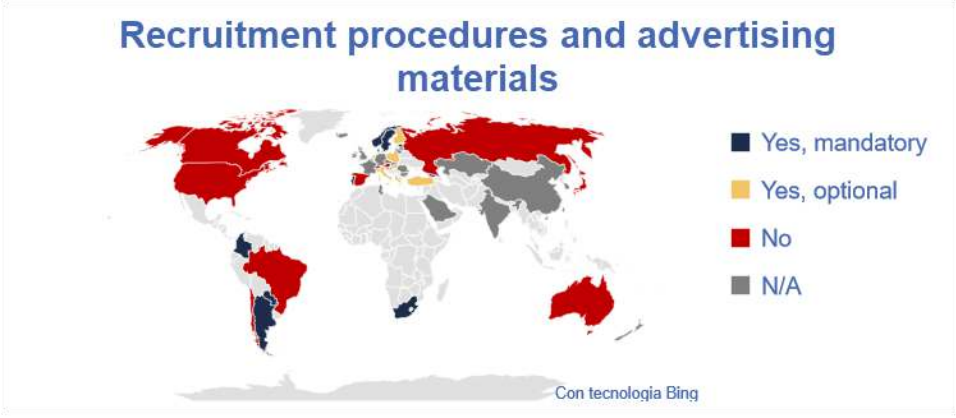

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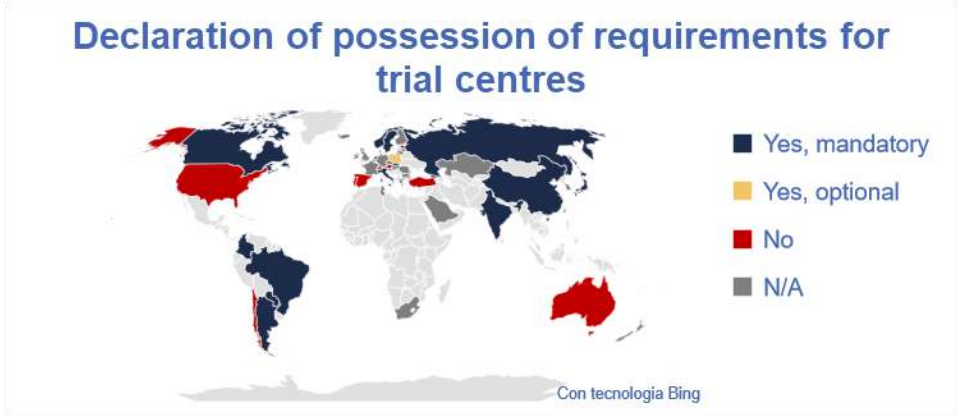

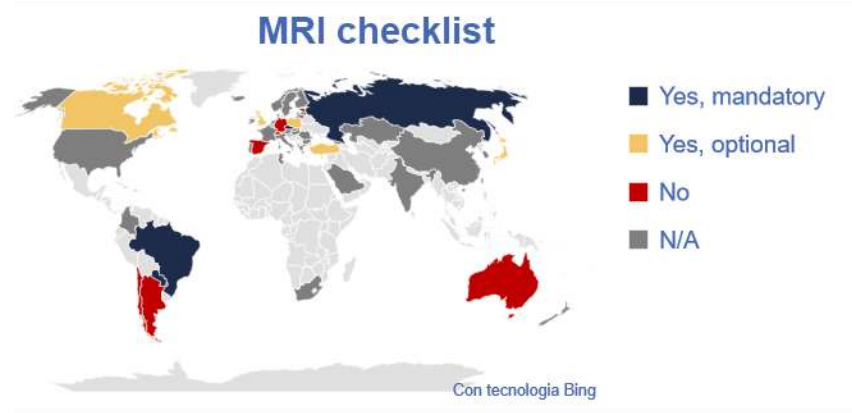


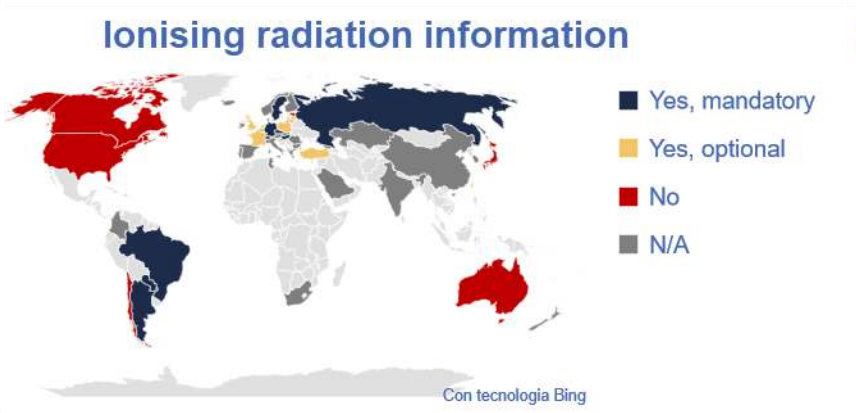

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# Thank you!
# Questions?

This project is supported by the Innovative Health Initiative Joint Undertaking (JU) under grant agreement No 101112185. The JU receives support from the European Union's Horizon Europe research and innovation programme and life science industries represented by MedTech Europe, COCIR, EFPIA, Vaccines Europe and EuropaBio.

innovative health initiative COCIR efpia EuropaBio MedTech Europe Vaccines Europe Co-funded by the European Union