

SIERR Survey Presentation

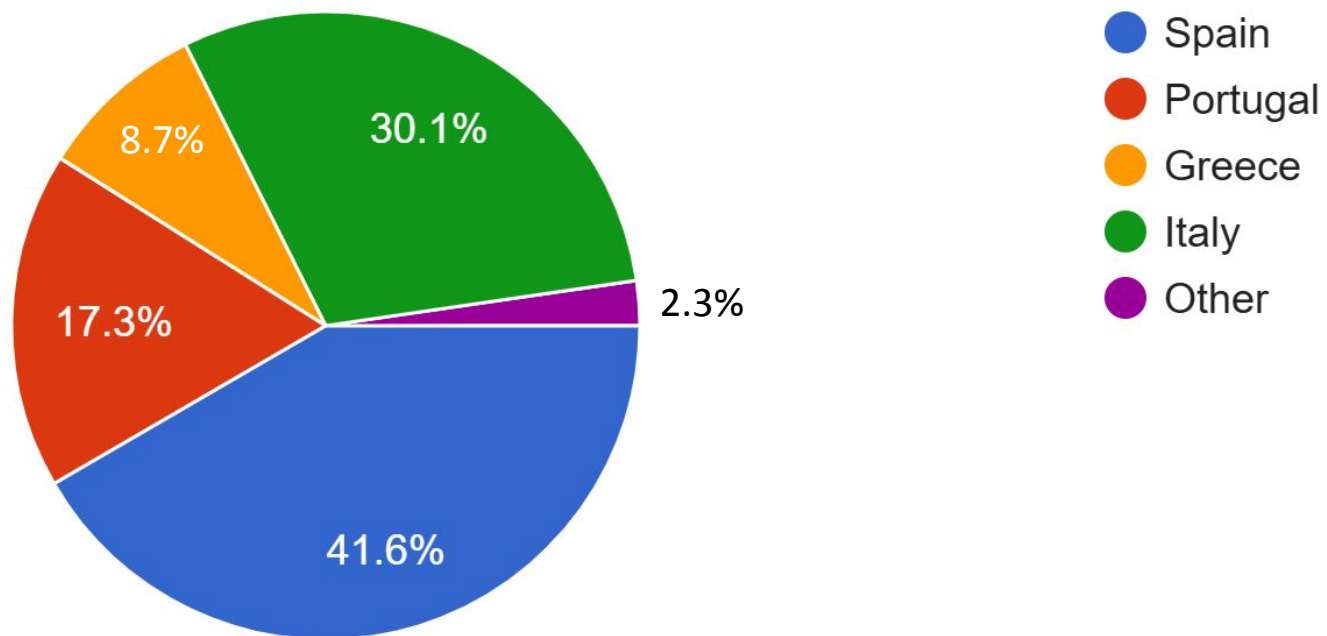
**Clinical embryologists on IVF laboratory practice
Cryopreservation**

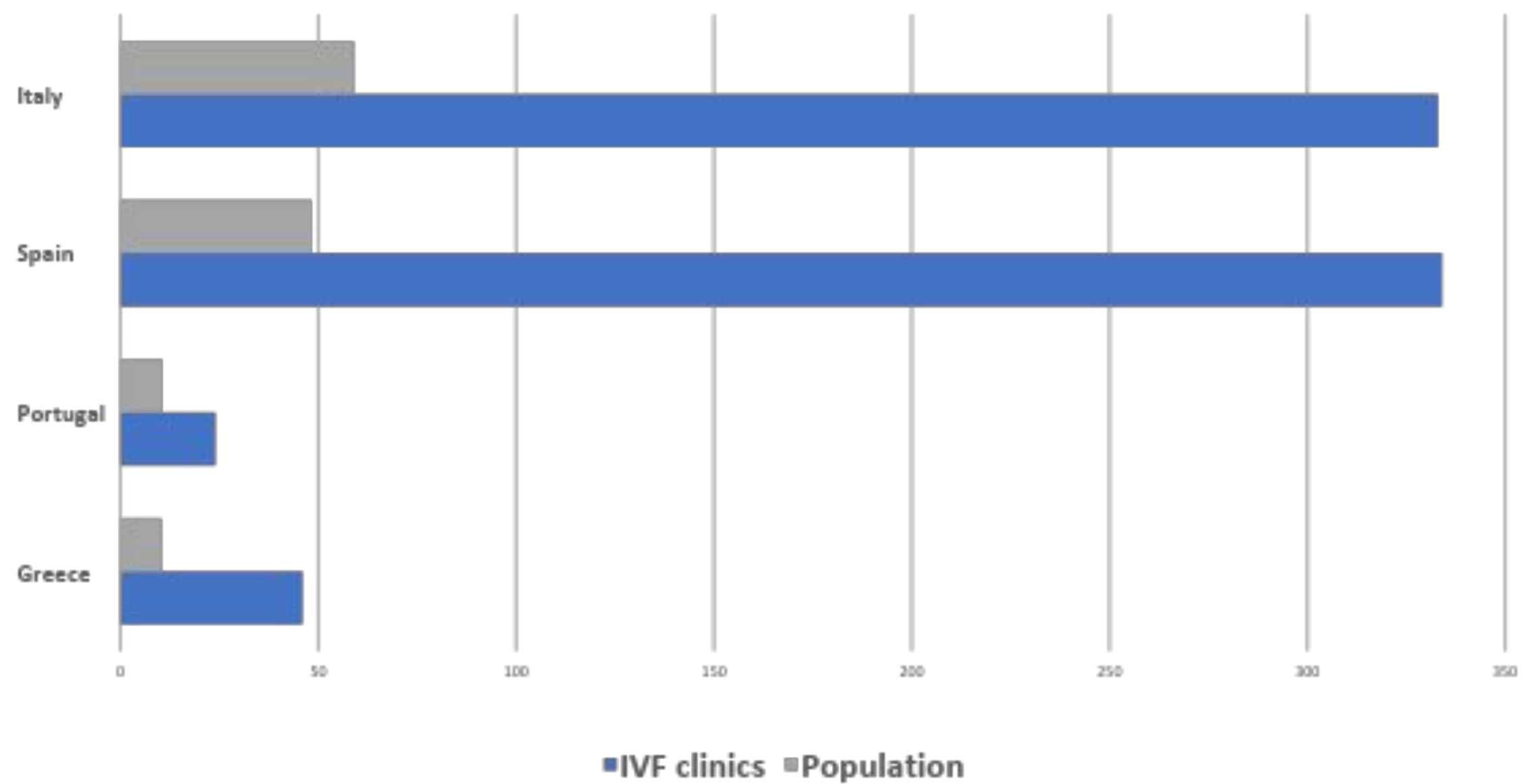
Dimitra Nikiforaki Ph.D.



Which country are you from?

173 responses





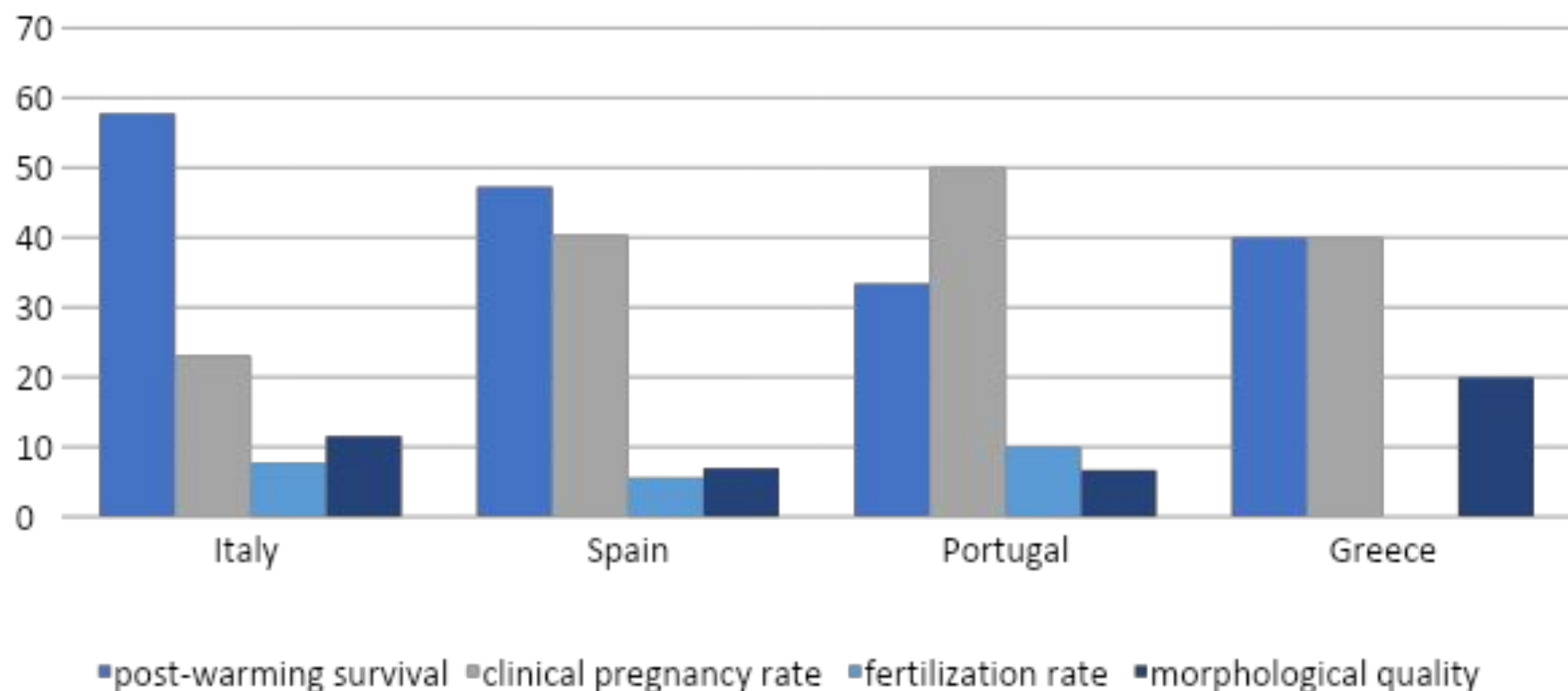


Freeze-all and oocyte freezing cycles rise

1. Improved outcomes with FETs
2. Reduced risk of OHSS
3. Advances in vitrification technology
4. Preimplantation Genetic Testing (PGT)
5. Flexible scheduling & personalized ET timing
6. Legislative reforms enhancing access and autonomy:
 - Increased age limit
 - Extended storage duration
7. Social purposes - delayed childbearing trends
 - Autonomy in decision-making
 - Increased awareness



Which KPI do you prioritize the most when assessing vitrification and warming outcomes?



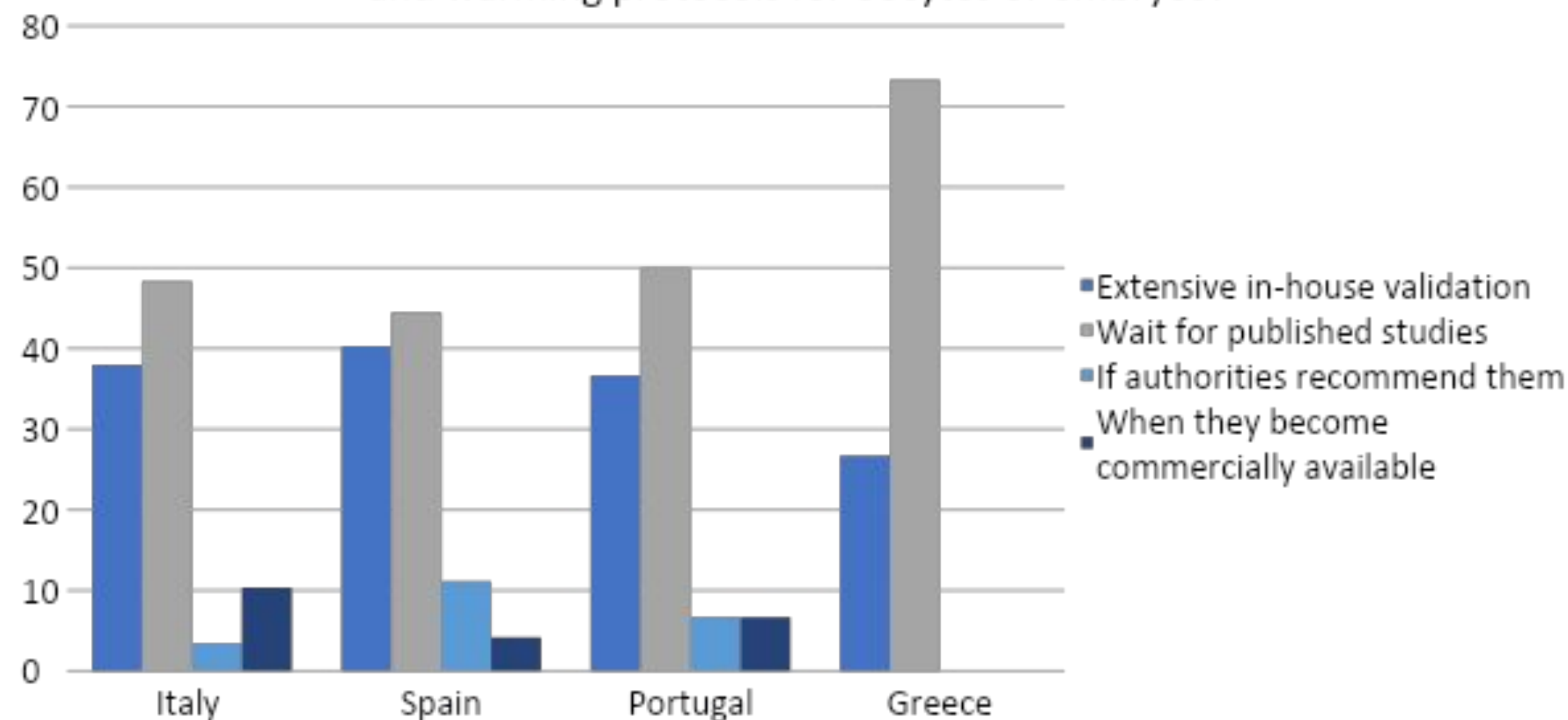
The Vienna consensus: report
of an expert meeting
on the development of art laboratory
performance indicators^{†,‡}

ESHRE Special Interest Group of Embryology^{1,*} and Alpha Scientists
in Reproductive Medicine^{2,*}

KPI	Calculation	Competency value (%)	Benchmark value (%)
Blastocyst cryosurvival rate	$\frac{\text{no. blastocysts appearing intact}}{\text{no. blastocysts warmed}} \times 100$	≥90	≥99

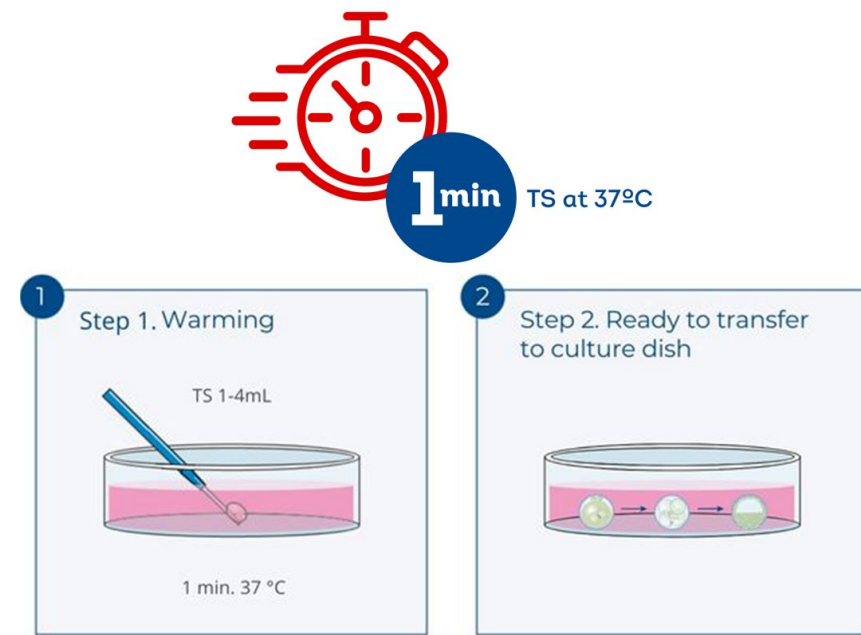
We need to assess both:
the technical success and its clinical outcomes

How does your lab approach the adoption of new, fast vitrification and warming protocols for oocytes or embryos?



- Standard vitrification protocol vs
- Ultra-fast warming in TS
- Ultra-fast warming in culture media
- Ultra-fast vitrification
 - Embryos
 - Oocytes

- Temperature ?
- Concentration of CPAs ?



Fast and furious: pregnancy outcome with one-step rehydration in the warming protocol for human blastocysts

Juergen Liebermann ^a ✉, Kristina Hrvojevic ^b, Jennifer Hirshfeld-Cytron ^a,
 Rebecca Brohammer ^a, Yuri Wagner ^a, Alexis Susralski ^a, Sue Jasulaitis ^a, Shu Chan ^b,
 Eden Takhsh ^b, Meike Uhler ^a

Implementing new techniques requires a systematic, evidence-based, and regulatory-compliant approach to ensure safety, efficacy, and quality

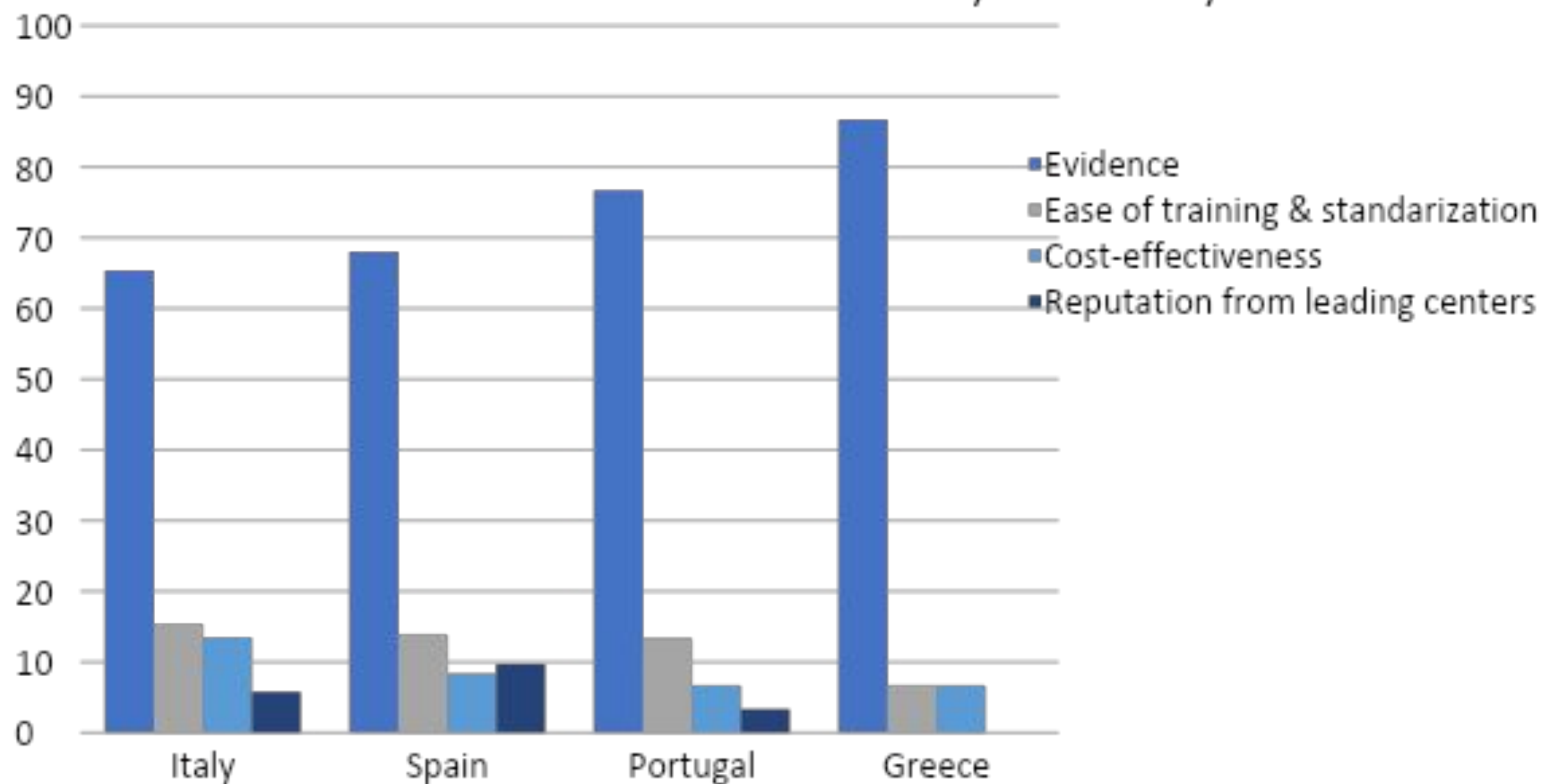


Good Practices
for demonstrating safety and quality
through recipient follow-up

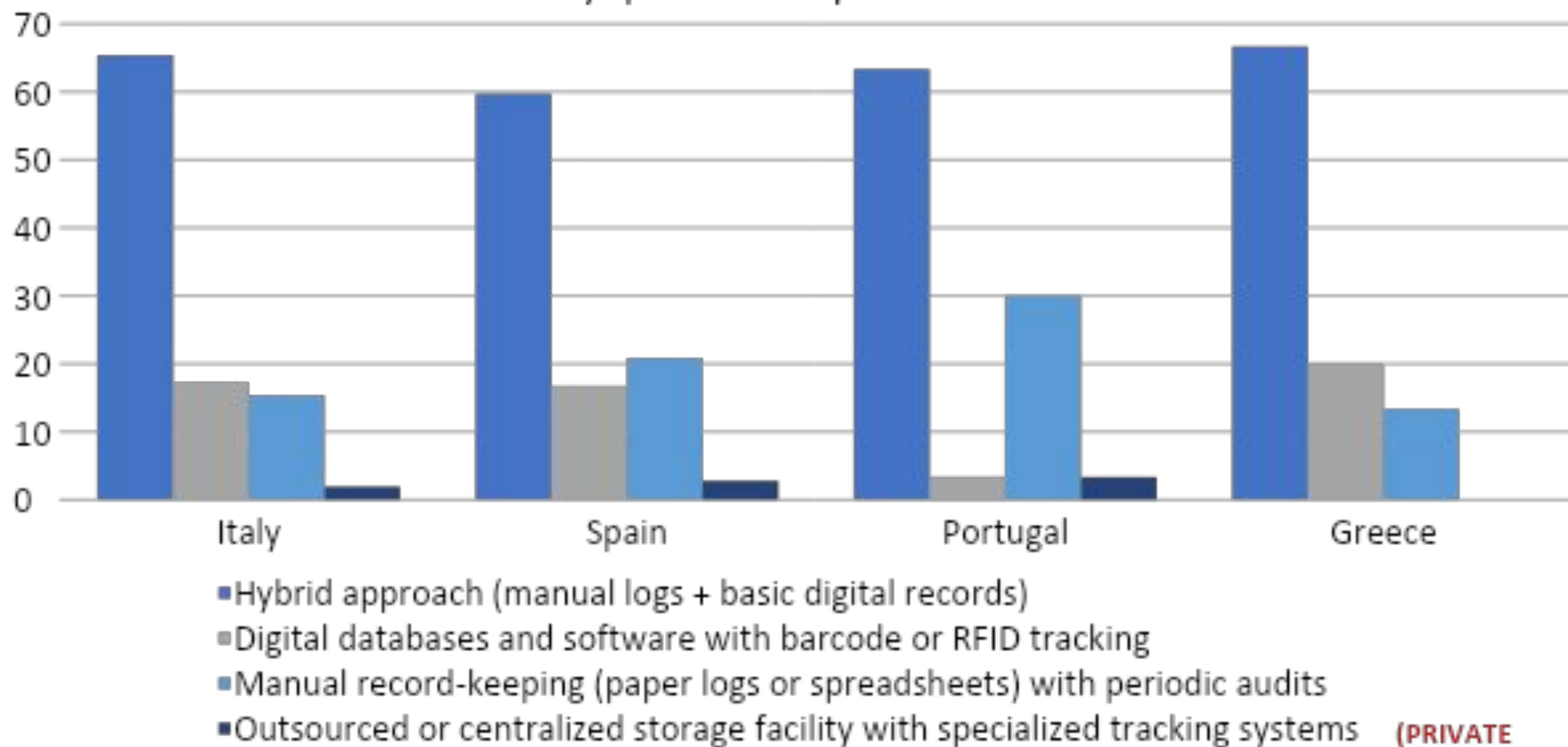


1. **Risk assessment and justification**
2. **Validation before implementation**
3. **Ethical and regulatory compliance**
4. **Training and competency**
5. **Controlled introduction**
6. **Ongoing monitoring and audit**
7. **Transparent communication**

Which factor most strongly influences your lab's choice of a vitrification method for human oocytes or embryos?

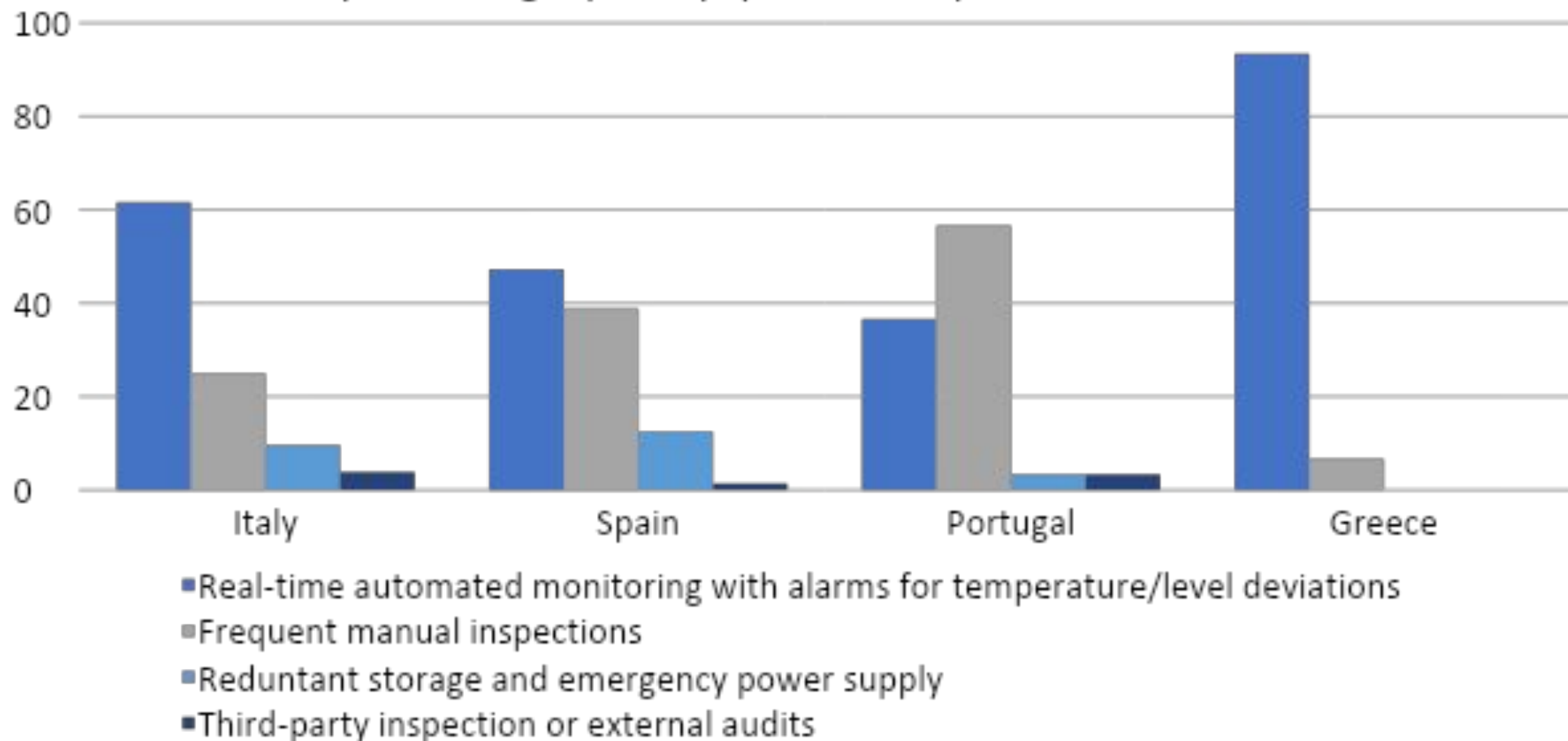


How does your lab ensure accurate inventory and tracking of cryopreserved specimens?



(PRIVATE)

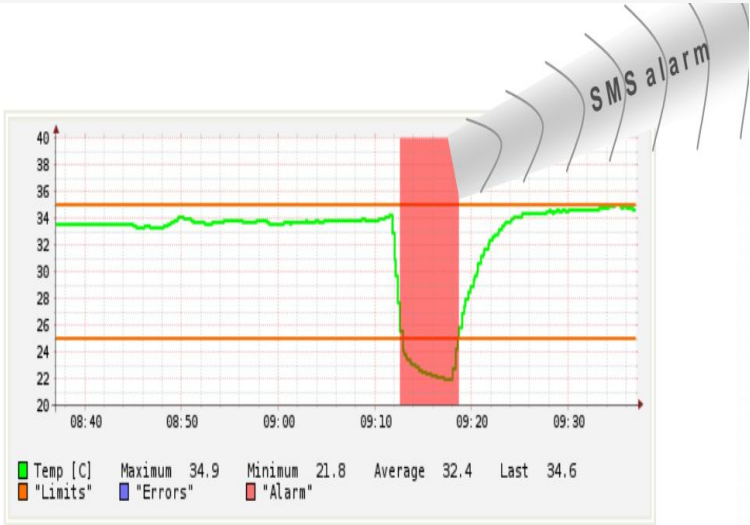
Which method best describes your lab's strategy for ensuring the safety and integrity of cryopreserved specimens over time?

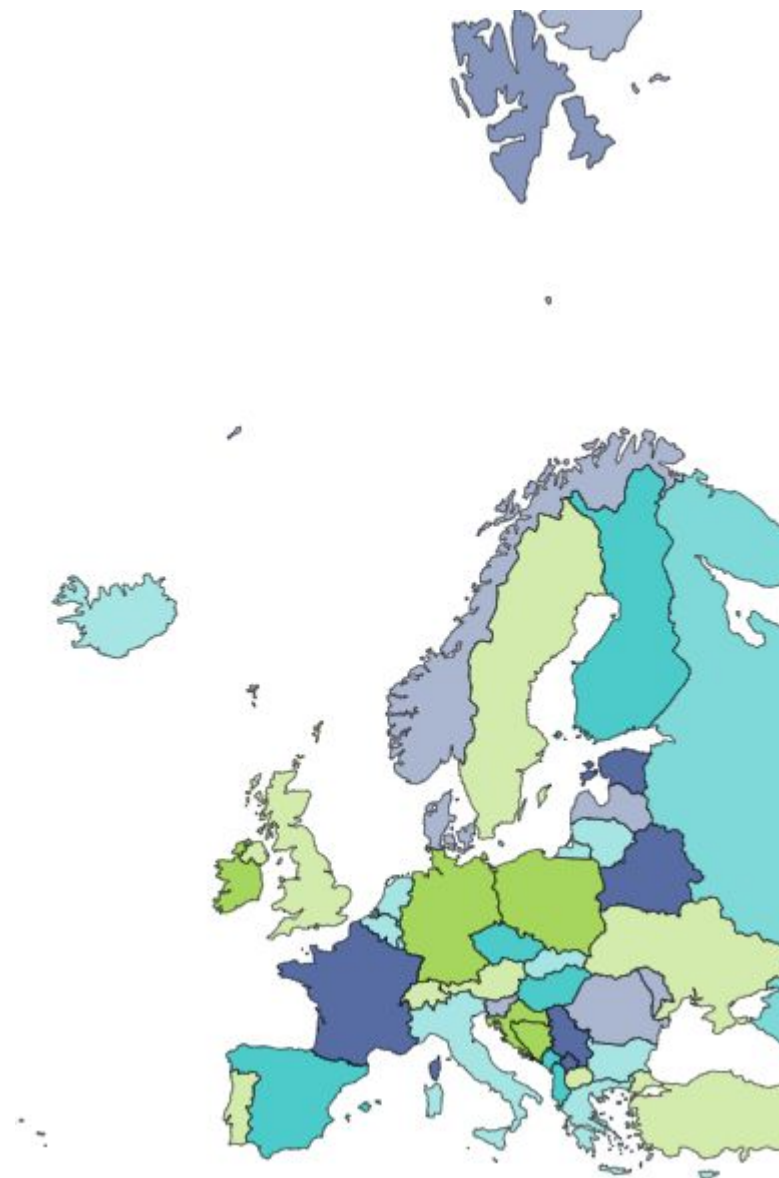


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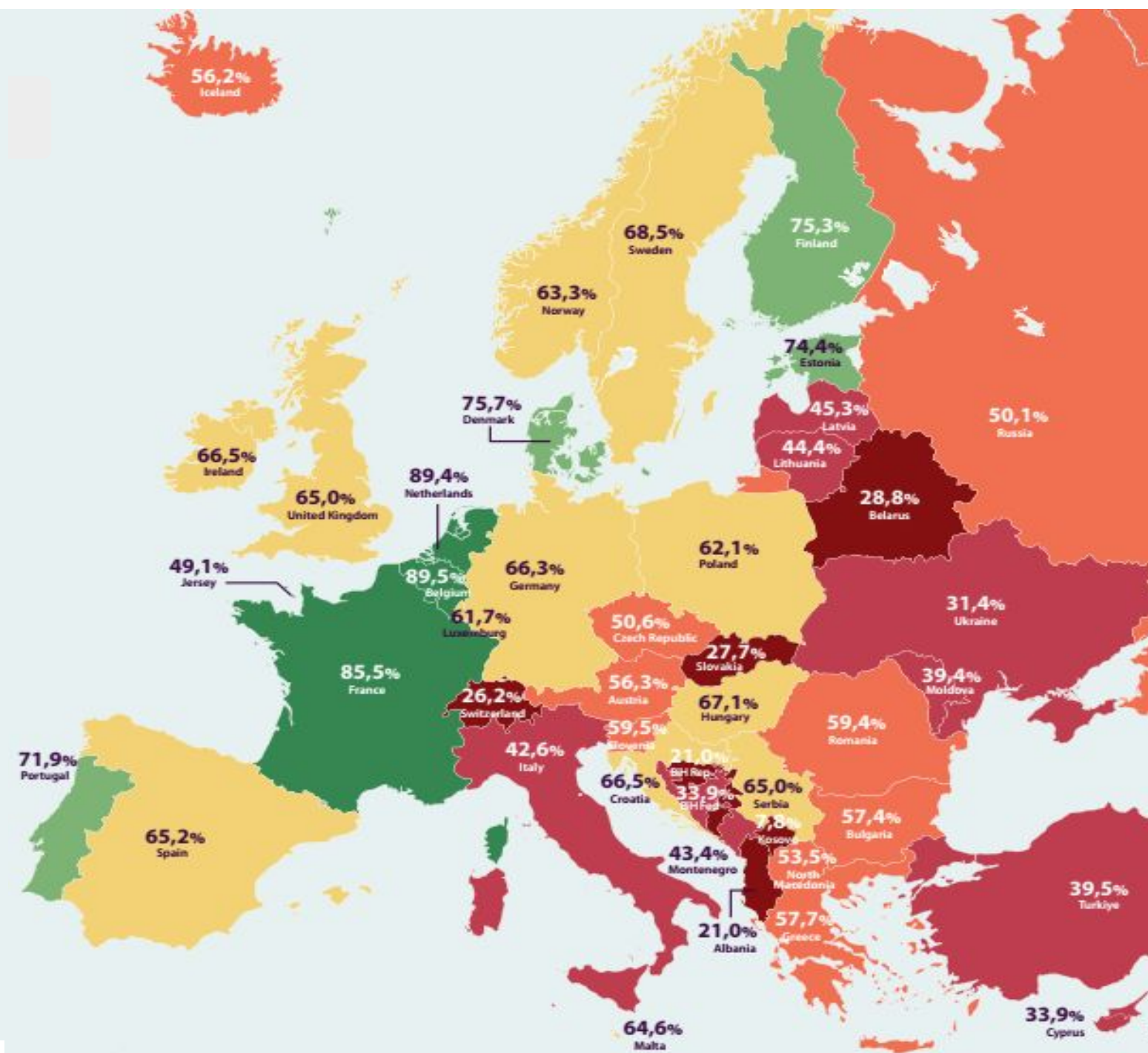


Feature	Notes
Redundant temp sensors	Critical for safety
Automated LN2 refill	Reduces human error
Real-time alerts & alarms	Should include multiple channels
Manual checks + audit logs	Adds reliability
Backup power systems	Critical in emergencies
Regulatory compliance	Required for safety and legal reasons
Cloud-based remote monitoring	Enhances oversight





Belgium	89,5 %
Netherlands	89,4 %
Israel	85,9 %
France	85,5 %
Denmark	75,7 %
Finland	75,3 %
Estonia	74,4 %
Portugal	71,9 %
Sweden	68,5 %
Hungary	67,1 %
Croatia	66,5 %
Ireland	66,5 %
Germany	66,3 %
Spain	65,2 %
United Kingdom	65,0 %
Serbia	65,0 %
Malta	64,6 %
Norway	63,3 %
Poland	62,1 %
Luxembourg	61,7 %
Slovenia	59,5 %
Romania	59,4 %
Greece	57,7 %
Bulgaria	57,4 %
Austria	56,3 %
Iceland	56,2 %
North Macedonia	53,5 %
Czech Republic	50,6 %
Russia	50,1 %
Jersey	49,1 %
Latvia	45,3 %
Lithuania	44,4 %
Montenegro	43,4 %
Italy	42,6 %
Turkiye	39,5 %
Moldova	39,4 %
Armenia	37,5 %
Kazakhstan	35,3 %
Georgia	34,6 %
Bosnia Herzegovina - Fed	33,9 %
Cyprus	33,9 %
Ukraine	31,4 %
Belarus	28,8 %
Slovakia	27,7 %
Switzerland	26,2 %
Bosnia Herzegovina - Rep	21,0 %
Albania	21,0 %
Azerbaijan	10,5 %
Kosovo	7,8 %



ASEBIR
Asociación para el Estudio de la
Biología de la Reproducción



Π.Ε.Κ.Ε.
Πανελλήνια Ένωση
Κλινικών Εμβρυολόγων



GR.A.C.E.
Greek Association
of Clinical Embryologists



SIERR UPDATE

In collaboration with:



ΠΕΚΕ
Πανελλήνια Ένωση
Κλινικών Εμβρυολόγων



GRACE
Greek Association
of Clinical Embryologists



SECÇÃO DE
PÓS-GRADUAÇÃO
EM REPRODUÇÃO
DA REPRODUÇÃO
SEÇÃO DE EMBRIOLOGIA

Focus on details **Continuous improvement in IVF**

Naples 7th June 2025
Hotel Royal Continental

Thank you!