

Background and Objectives:

- European Medicines Agency's (EMA) PRIME designation is designed to encourage the development of new medicines that address an unmet medical need
- It provides enhanced regulatory support to optimize development plans and generate robust data to help these medicines reach patients faster
- Our objectives are to:
 1. Quantify HTA outcomes for EMA PRIME + orphan, non ATMP products across FR/DE/IT/ES/UK
 2. Compare HTA decisions across 5 EU using Favorable / Inconclusive / Unfavorable metric
 3. Identify common vs country specific success drivers and implications for evidence generation

Methods:

Design & Sample

- Source: EMA authorized products with PRIME; filtered to orphan, non-ATMP; exclude withdrawn / suspended / refused
- Final sample: 13 products; 59 HTA assessments (split almost evenly across EU-5)
- Originally 16 products have PRIME status but at the time of the study, we have data on 13 of the 16 drugs, namely: Bylvay, Imcivree, Xenpozyme, Givlaari, Fabhalta, Polivy, Idefirix, Voydeya, Hepcludex, Tavneos, Oxlumo, Talvey, Winrevair

Data & Processing

- We used our proprietary AI platform (OMNIA) to analyze official HTA final reports (HAS, G BA, AIFA, AEMPS) and codified 20 factors (e.g., RCT, comparator, QoL, innovation) that are important for HTA decisions. For the UK, NICE reports were analyzed manually due to restricted use of AI data for analysis.
- Outcomes harmonized: country-specific assessments were mapped into discrete categories; Favorable vs Inconclusive vs Unfavorable

Analytics

- Frequency & share calculations by country and factor; identification of factors that are most associated with favorable HTA outcomes, defined as 'universal' success factors (e.g., positive remark for the factor $\geq 70\%$ of the reports)

Results:

Cross-country outcomes

- 59% favorable (35/59), 31% inconclusive (18/59), 10% unfavorable (6/59)
- Favorable rate: FR 92%, UK 90%, DE 42%, IT 42%, ES 38%. 41% not straightforwardly positive

Universal success factors ($\geq 70\%$ of favorable in ALL countries)

- Novel MoA; Life-threatening disease; RCT-based evidence; Long-term ≥ 12 m; First-in-class/no alternatives;
- Innovation recognized; Evidence limits accepted in PRIME context

Key factors for unfavorable/inconclusive decisions

- Germany: quantification of clinical benefit – needs RCT, direct comparator, clinical endpoints → many 'non-quantifiable'
- Italy: innovation matters – first-in-class + ultra-rare largely required for 'Piena' and reimbursement
- UK: cost-effectiveness – QoL mandatory; PAS ubiquitous; ICER must be within TA/HST thresholds
- France: right choice of comparator – wrong comparator can lead to ASMR V (e.g., Polivy)
- Spain: flexible access – 'treatment option' prevalent with RWE expectations

Conclusion:

- PRIME signals unmet need but does not assure HTA success – robust comparative evidence remains decisive
- 7 success factors associated with favorable outcome provide a minimum 'design spec' for PRIME programs
- Significant differences in HTA assessment criteria exist between countries impacting faster access to novel therapies for high unmet medical need diseases
- Companies should plan and implement HTA strategy as robust as regulatory strategy early in the development to win faster access to therapies with high unmet medical needs

Figure 1: Outcome Mix per country

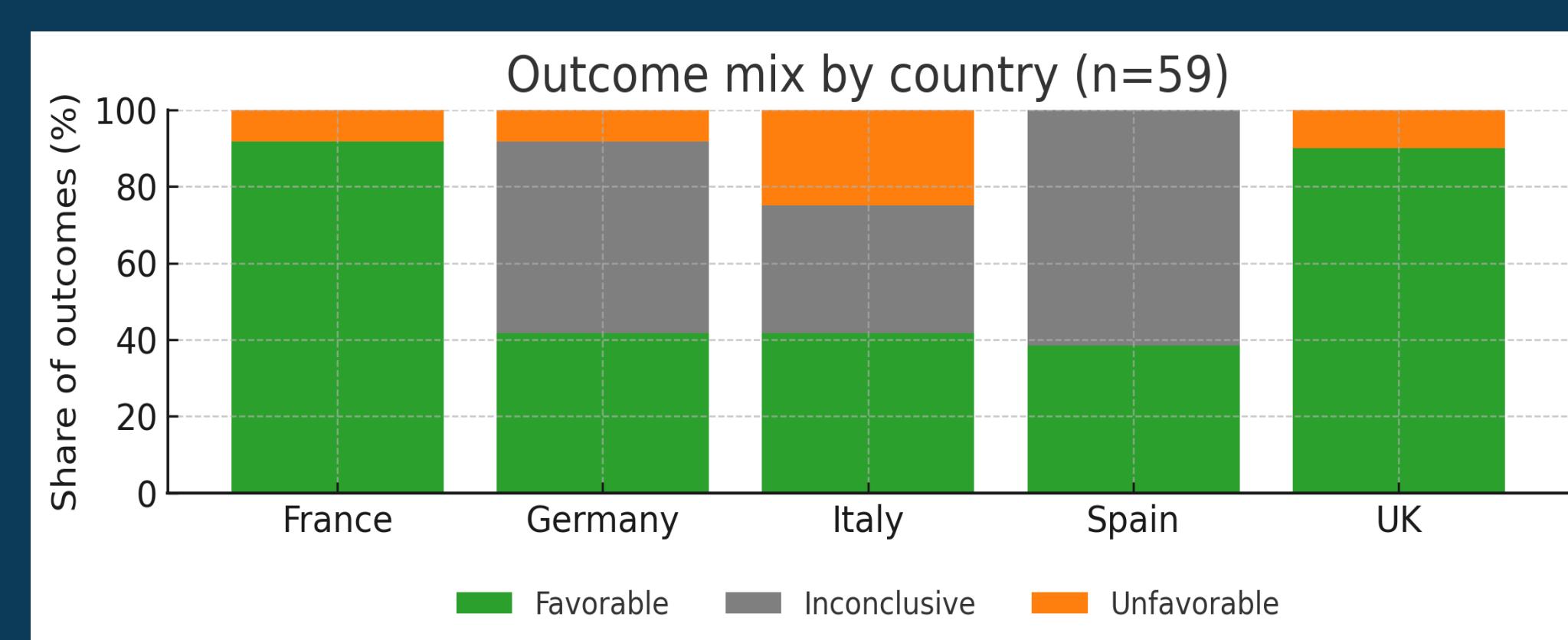


Table 1: Breakdown of HTA outcomes by country and outcome type

Country	Fav.	Inc.	Unfav.	Total	Fav. %
France	11	0	1	12	92%
Germany	5	6	1	12	42%
Italy	5	4	3	12	42%
Spain	5	8	0	13	38%
UK	9	0	1	10	90%

Table 2: Factors favorably mentioned when HTA Report had favorable outcome

Factors commonly associated with favorable outcomes	Avg. favorable
Novel MoA	92%
Life-threatening condition	92%
RCT-based evidence	91%
Evidence limits accepted (PRIME context)	89%
Therapeutic innovation recognized	87%
First-in-class / no alternatives	85%
Long-term follow-up ≥ 12 months	82%