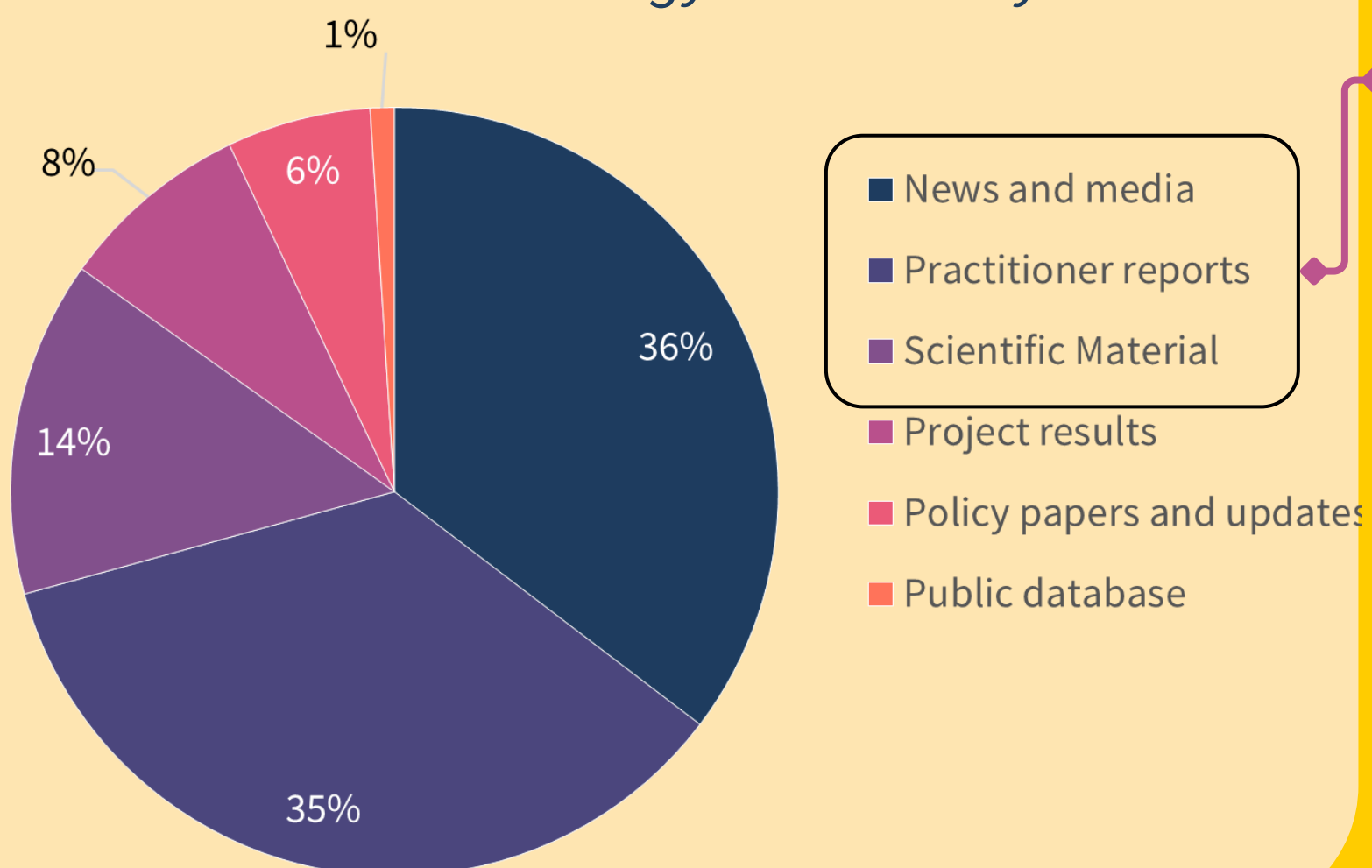


The Technology Observatory monitors the current state-of-the-art of technology products and services including on-going research, scientific research and those solutions (being) developed in EU-funded projects

Distribution of sources of observations with **high-relevance** to the technology observatory.



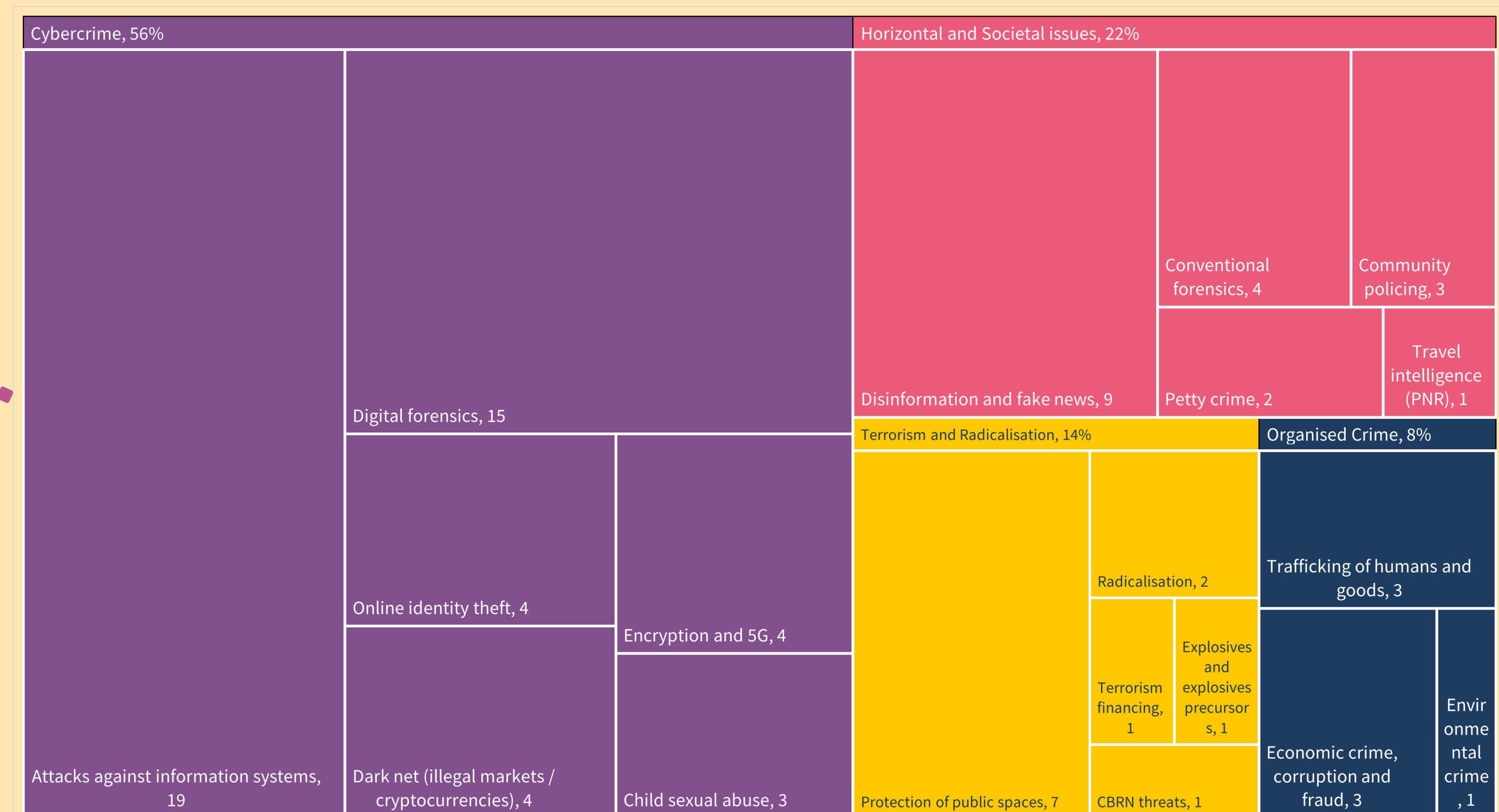
85%

of observations from News and Media, Practitioner Reports and Scientific Material

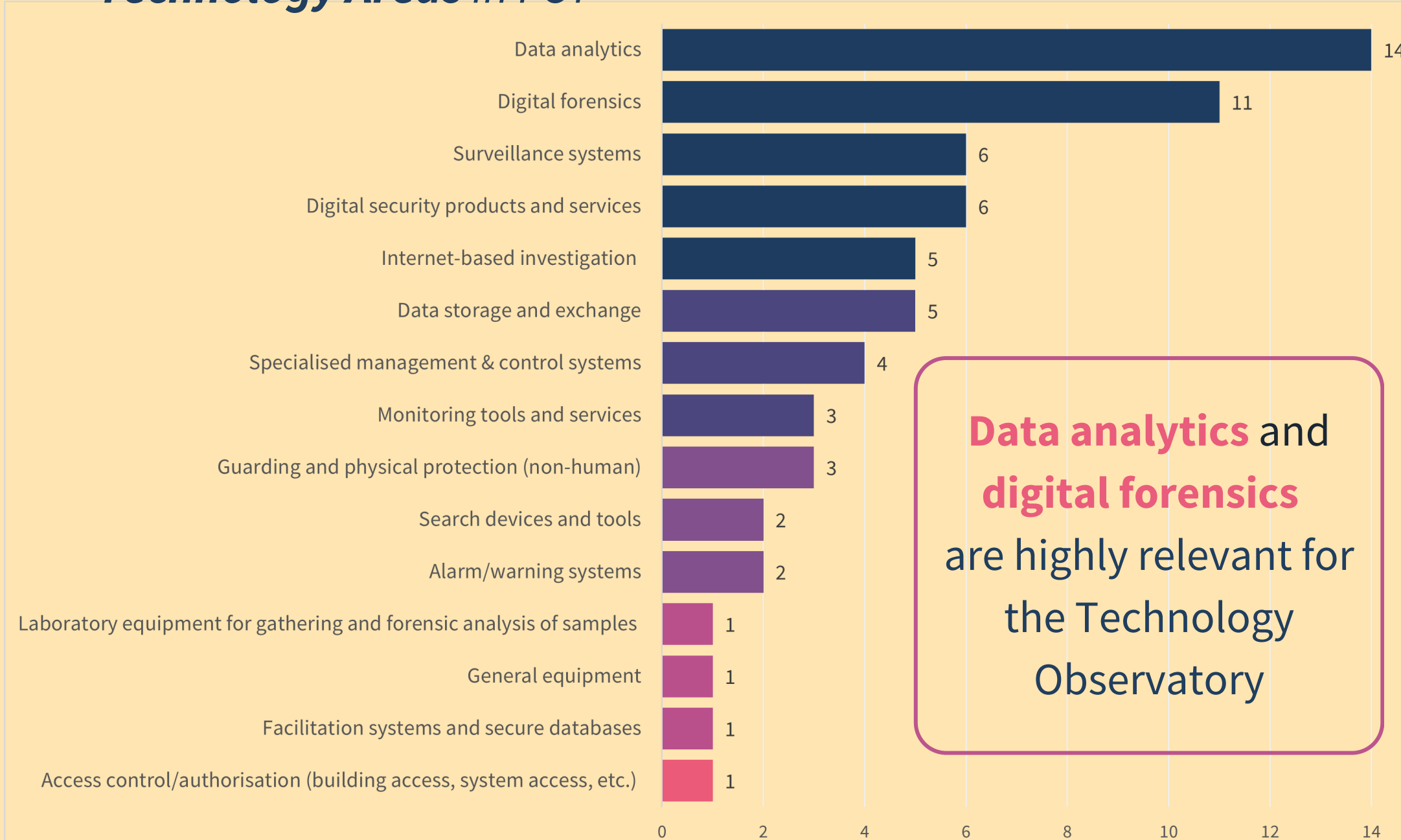
56%

of observations concern Cybercrime policy areas

Distribution of observations according to the EUCS Taxonomy **Policy Areas** in FCT

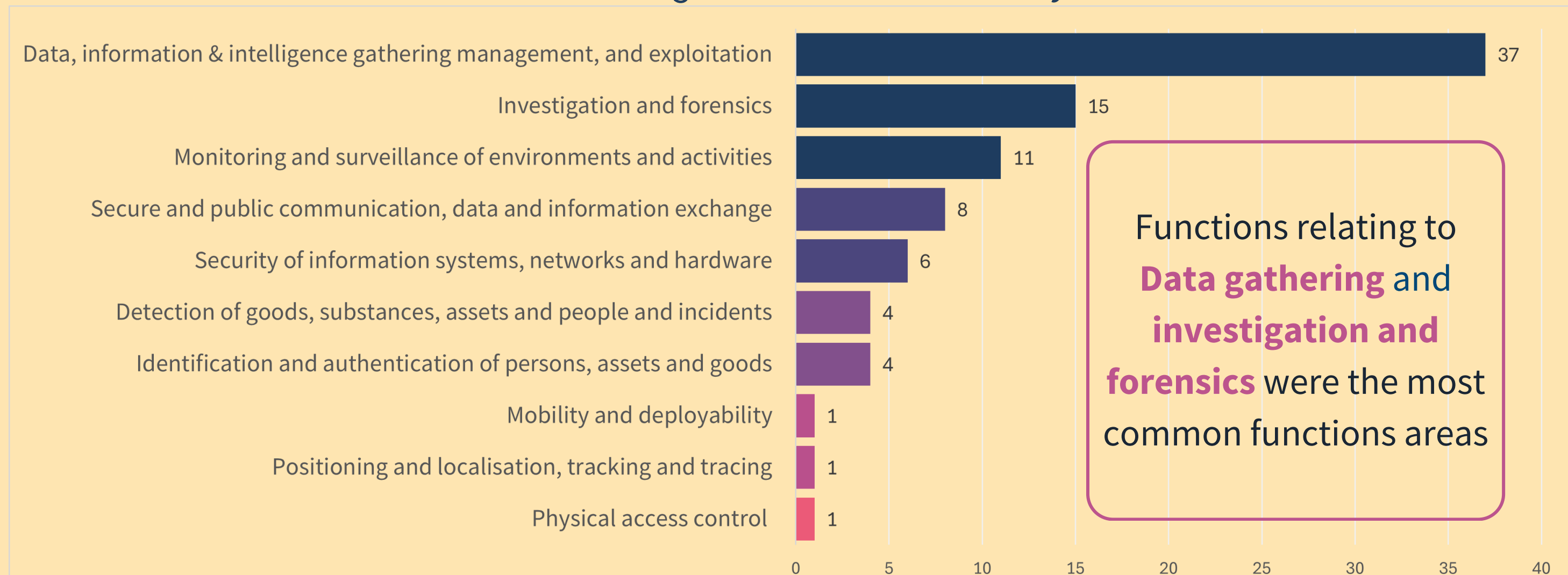


Distribution of observations according to the EUCS Taxonomy **Technology Areas** in FCT



Data analytics and digital forensics are highly relevant for the Technology Observatory

Distribution of observations according to the EUCS Taxonomy **Functions Areas** in FCT



Functions relating to Data gathering and investigation and forensics were the most common functions areas

Trends in the Technology Observatory

News

Media coverage increasingly centers on **AI-driven threats and defences**, particularly around **deepfake detection, adversarial AI, and generative content risks**.

News articles highlight advances in **digital forensics, AI-enhanced investigation, and cross-border cybersecurity**, with **policy debates on regulating police technology and ethical AI**.

Broader technological reporting emphasises **innovation foresight, surveillance, and resilience technologies** with **AI, data analytics, and HPC** emerging as dominant enablers across security-related news

Strategic trends and foresight studies shift toward **technological sovereignty** and **long-term digital preparedness** within European security agendas.

Technology

In **Investigation and Forensics** and **Data, Information & Intelligence Gathering, Management, and Exploitation**, current technology trends emphasise **AI-enhanced digital forensics and intelligence** for evidence collection, automated data analysis, and detection of synthetic or manipulated media.

Advanced computing infrastructures such as **AI Factories and EuroHPC** resources enable **large-scale intelligence exploitation** and real-time forensic validation.

In Technology areas, the primary category is Data analytics, which features advances in **AI model sharing, high-performance computing, and quantum-enabled processing** supporting the development of trustworthy, explainable and risk-aware analytical pipelines that enable real-time exploitation of diverse data sources.

Developments include **OSINT-based investigative platforms, mobile and biometric forensics, and privacy-preserving AI systems** for lawful and transparent policing

Digital forensics continues to advance through **AI-assisted evidence analysis, deepfake and adversarial content detection, and mobile device data extraction**. Recent developments emphasise automated **authenticity verification, OSINT integration, and data preservation** workflows, enabling investigators to reconstruct complex digital events.

Projects

Current and emerging projects concentrate on the operational use of AI and digital technologies for **law enforcement and humanitarian missions**, particularly in areas such as **missing persons identification, digital forensics, and child protection**.

Other initiatives focus on **countering disinformation** and **malicious AI use**, and **ethical technology adoption**.

Science

65% of observations from Scientific Material relate to **Horizontal and societal issues**; with **29%** related to **Cybercrime**.

66% of the observations labelled as **Practitioner Reports** relate to **Cybercrime, 44%** to **Horizontal and Societal Issues**, and 3% for each of the two remaining categories.

Core research focuses include **technology for law enforcement and security** (digital forensics, OSINT, biometrics, counter-UAS), and **strategic responses to emerging threats** (hybrid warfare, misinformation, and cyber resilience).