Skills 4 eosc

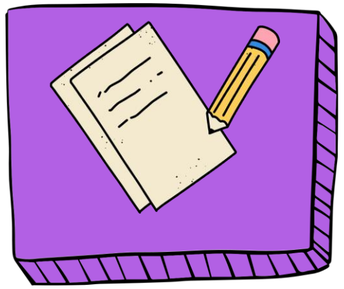
- Skills for the European
- Open Science
- Commons

EMPOWERING EOSC THROUGH SKILLED DATA STEWARDS: WHEN OPEN SCIENCE TRAINING MATTERS

Eva Méndez (UC3M. OpenScienceLab)

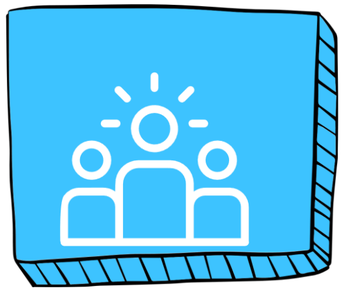
Paris, 11 June 2025

DATA STEWARDS
Curriculum Design



Minimum Viable Skills

Skills and competencies for Data Stewards

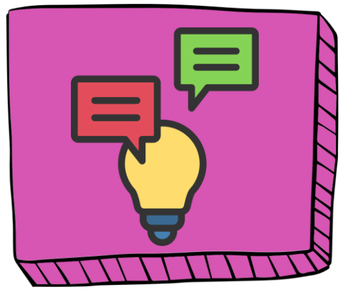


Target Audience

Entry level data stewards (broad enough curriculum to covering a broad definition of data stewardship but not too advanced or specialised).

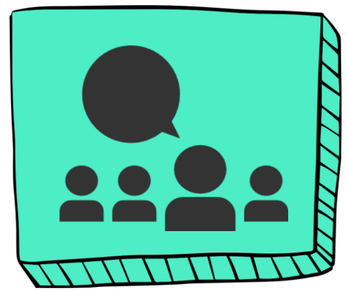
Landscaping

Reviewed existing material and conducted gap analysis of existing curriculum.



Curriculum Design

Backwards design model: learning objectives, learning activities, instructor notes and suggested resources.



Consultations

Continuous consultations with Data Stewards and experts from across Europe

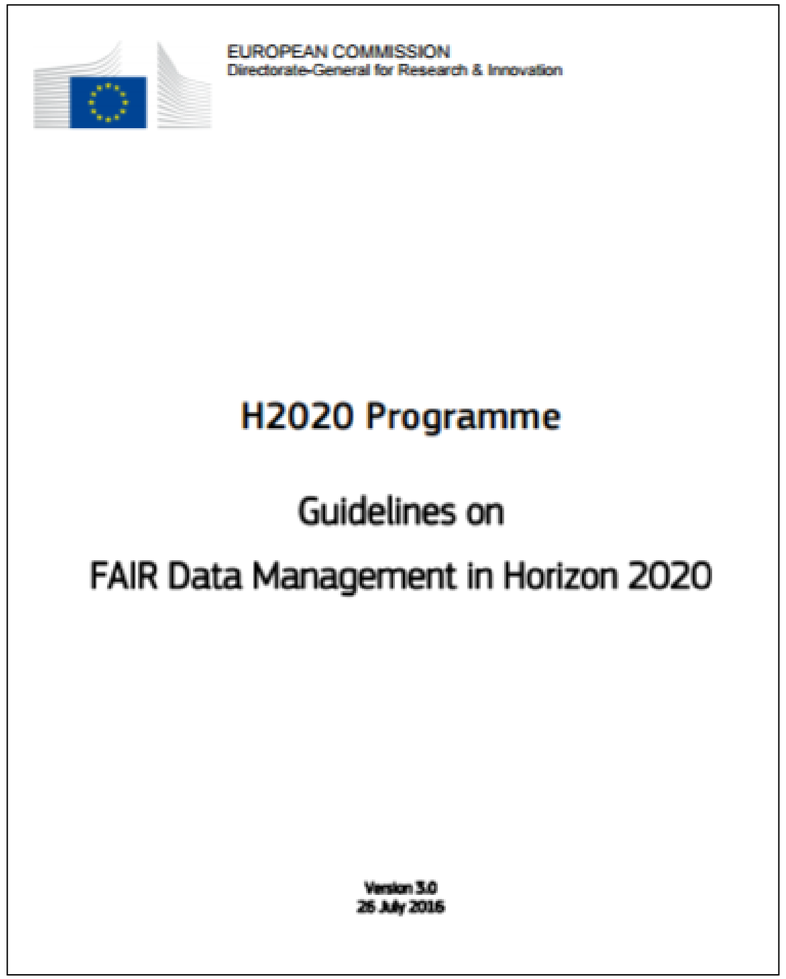
Supporting eosc
Co-funded by the European Union

Data stewards in Skills4EOSC

The project will directly **support EOSC Partnership Specific Objective 1.2.** *Professional data stewards are available in research-performing organisations in Europe to support Open Science*:

- *KPI (2025) European curricula for data stewards are defined* direct contribution done in WP2 and 4
- *KPI (**2027**) **All research done by EOSC Association members is supported by professional data stewards***

Where did we start this…


EUROPEAN COMMISSION
Directorate-General for Research & Innovation

H2020 Programme

Guidelines on

FAIR Data Management in Horizon 2020

Version 3.0
26 July 2016

Schipol Airport, November 2016

http://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf

Where did we start this…

nature › scientific data › comment › article

Comment | Open access | Published: 15 March 2016

The FAIR Guiding Principles for scientific data management and stewardship

Mark D. Wilkinson, Michel Dumontier, IJsbrand Jan Aalbersberg, Gabrielle Appleton, Myles Axton, Arie Baak, Niklas Blomberg, Jan-Willem Boiten, Luiz Bonino da Silva Santos, Philip E. Bourne, Jildau Bouwman, Anthony J. Brookes, Tim Clark, Mercè Crosas, Ingrid Dillo, Olivier Dumon, Scott Edmunds, Chris T. Evelo, Richard Finkers, Alejandra Gonzalez-Beltran, Alasdair J.G. Gray, Paul Groth, Carole Goble, Jeffrey S. Grethe, … Barend Mons + Show authors

Scientific Data **3**, Article number: 160018 (2016) | Cite this article

930k Accesses | **7189** Citations | **2278** Altmetric | Metrics

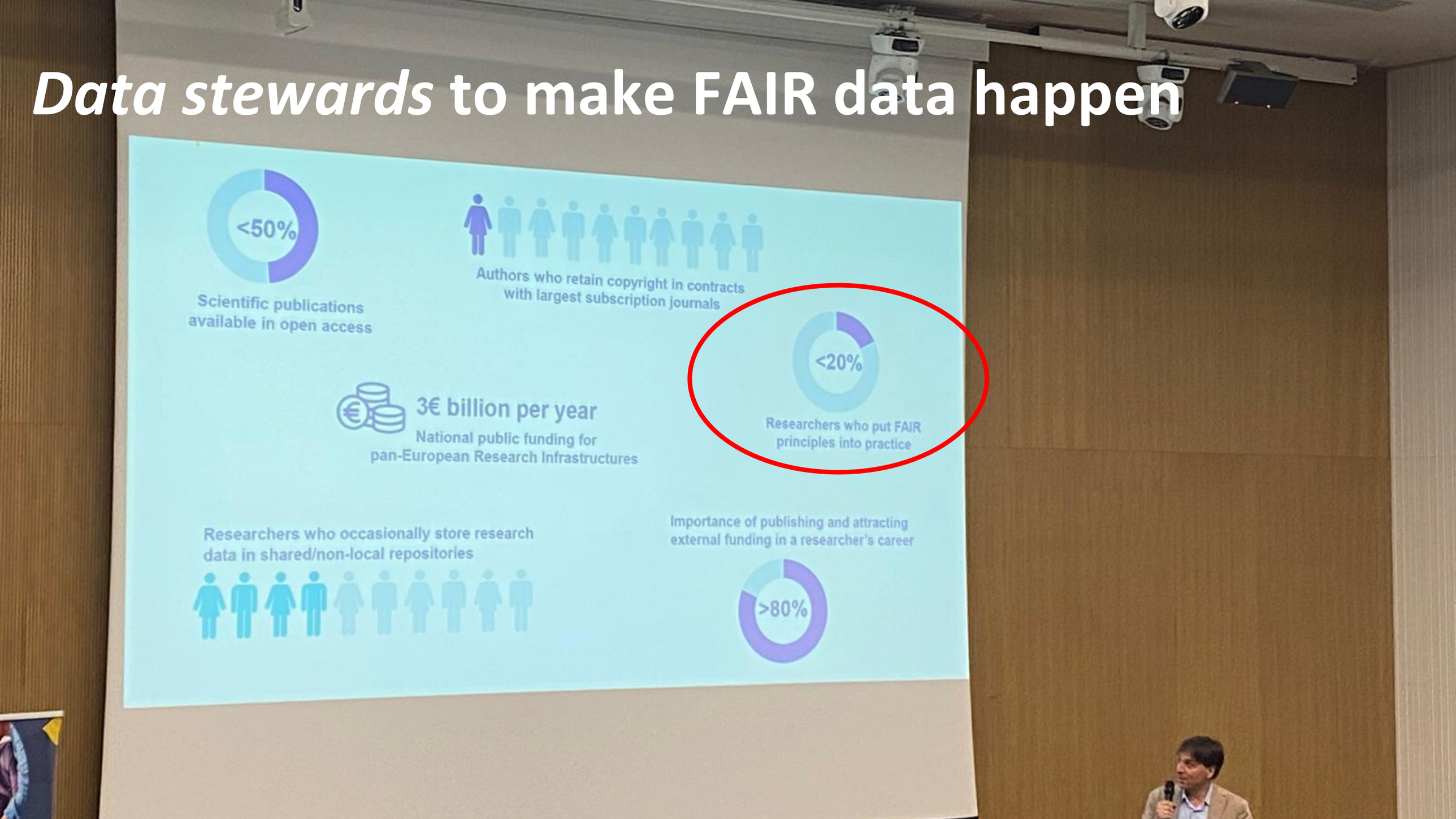
- FAIR guiding principles (**March 2016):**

*… funding agencies (private and public) increasingly concerned with **long-term data stewardship**; and a data science community mining, integrating and analysing new and existing data to advance discovery.*

Data stewards to make FAIR data happen

- FAIR principles widely promoted (**FAIR happy term**/acronym)
- Most European research institutions **lack** formally recognised **Data Steward** roles.
  - **FAIRsFAIR** WP7: *Data Stewardship Professional Competence Framework* (Deliverable D7.3, **2021**)
  - OpenAIRE Data Steward Task Force (WG RDM) (2023)
  - RDA IG. Professionalising Data Stewardship Career Tracks Survey Dataset (2023)
- Only less than **10%** of EU institutions have data stewards (formally).
- Some front-runners: TUDelft, ETH Zürich, …
- Institutional gap that needs to be addressed if EOSC is to succeed.

Data stewards to make FAIR data happen



Data stewards to make FAIR data happen

Home / EOSC Association / Task Forces / Data Stewardship, Curricula ...

Data Stewardship, Curricula and Career Paths

DOI 10.5281/zenodo.11077722

Data Stewardship Career Paths: Recommendations of the EOSC Task Force Data Stewardship Curricula and Career Paths

April 27, 2024

DOI 10.5281/zenodo.10925394

Fostering Open Science in Europe: Engagement Strategies from EOSC's Task Forces on Research Careers and Curricula

April 4, 2024

DOI 10.5281/zenodo.10573892

Recommendations for Data Stewardship Skills, Training and Curricula with Implementation Examples from European Countries and Universities

January 26, 2024

Data stewards?

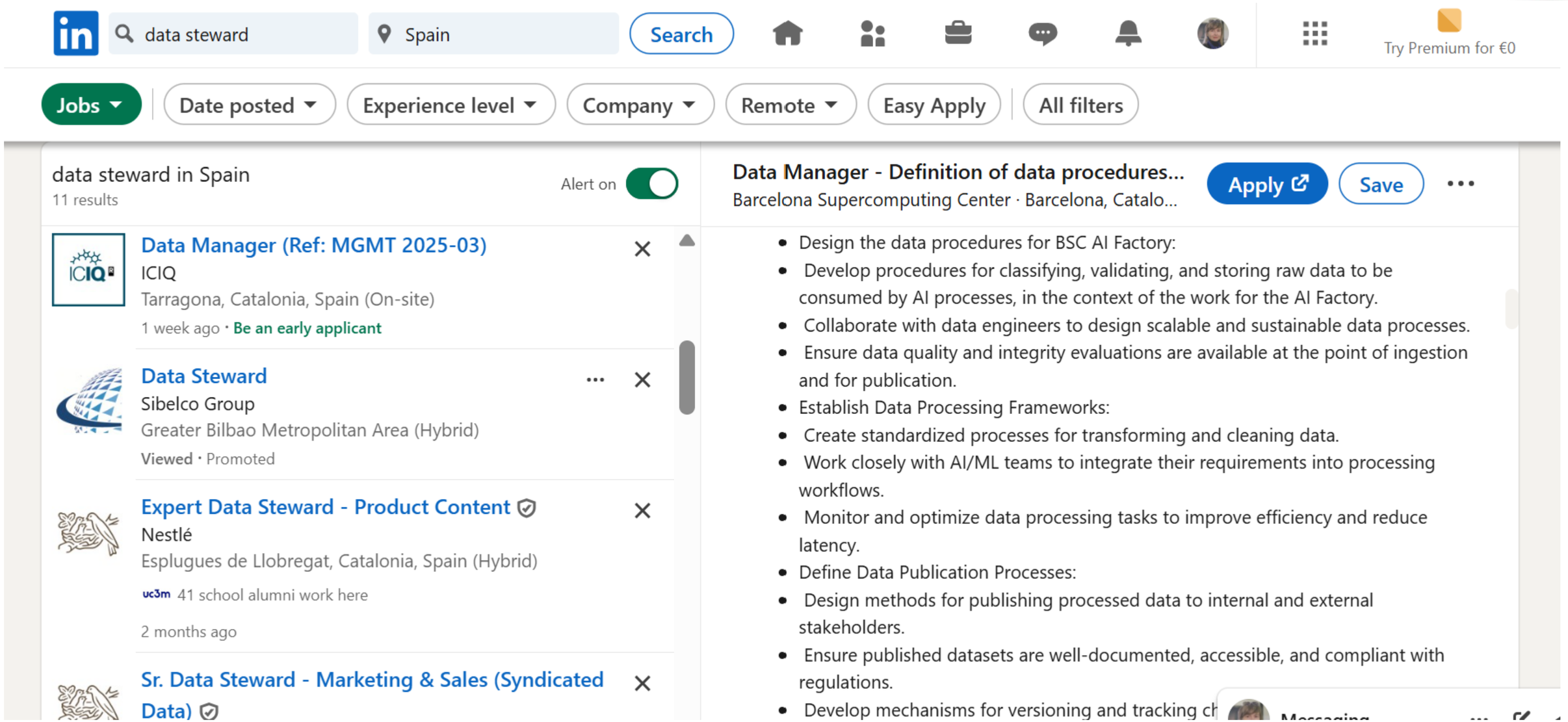
Generated with SORA.AI

Data stewards to make FAIR data happen

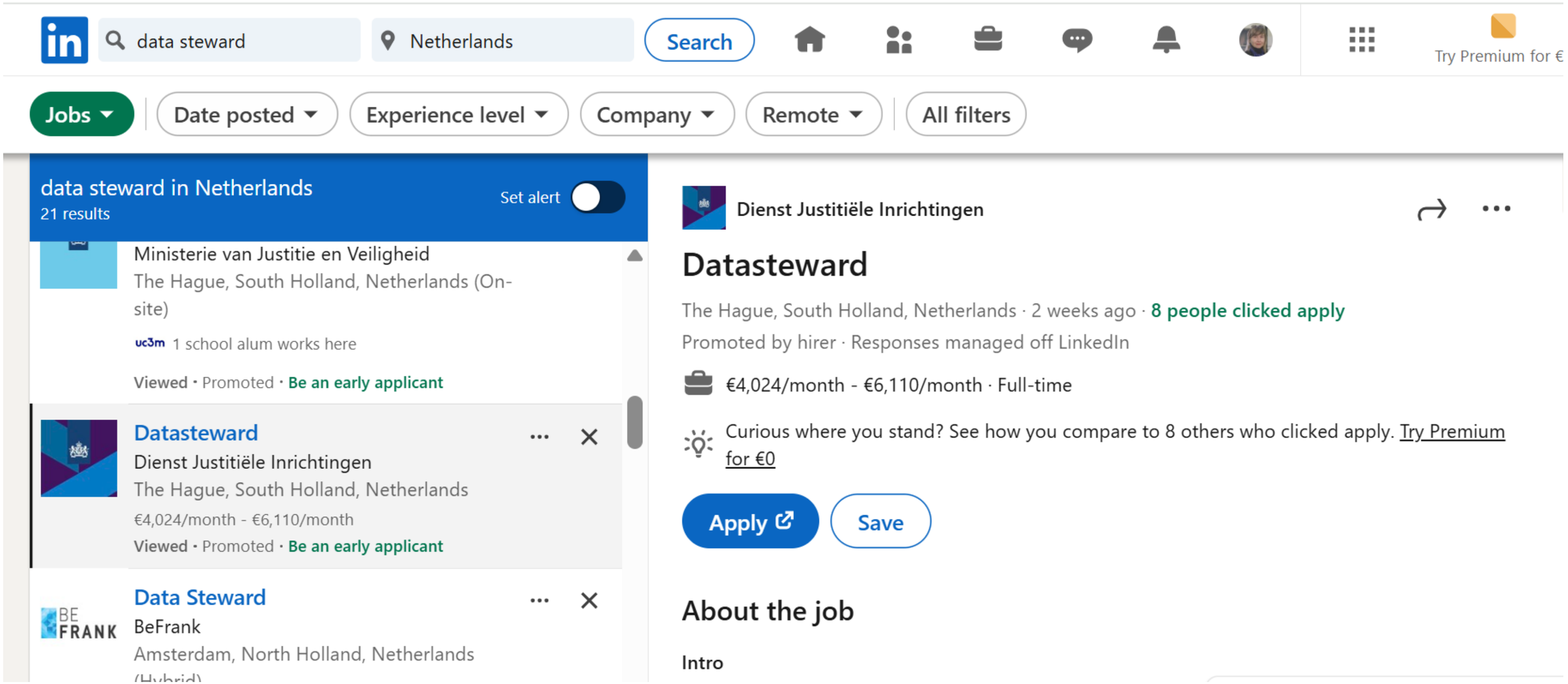
… Important role of Data Stewards and their "responsibilities towards the scientific community and the public to effectively manage data for reusability and reproducibility" but also towards the "legitimate interests of other affected stakeholders, for instance, data subjects or vulnerable groups". In a context where both research and the private sector are increasingly "data hungry" […] the professional satisfaction and status of the individuals that are in charge of sharing and depositing data is crucial. This will ensure their ability to safeguard, respect and consider all stakeholders' rights and legitimate interests.

"What is data stewardship? Towards a comprehensive understanding"
(Wendelborn et al. 2023)

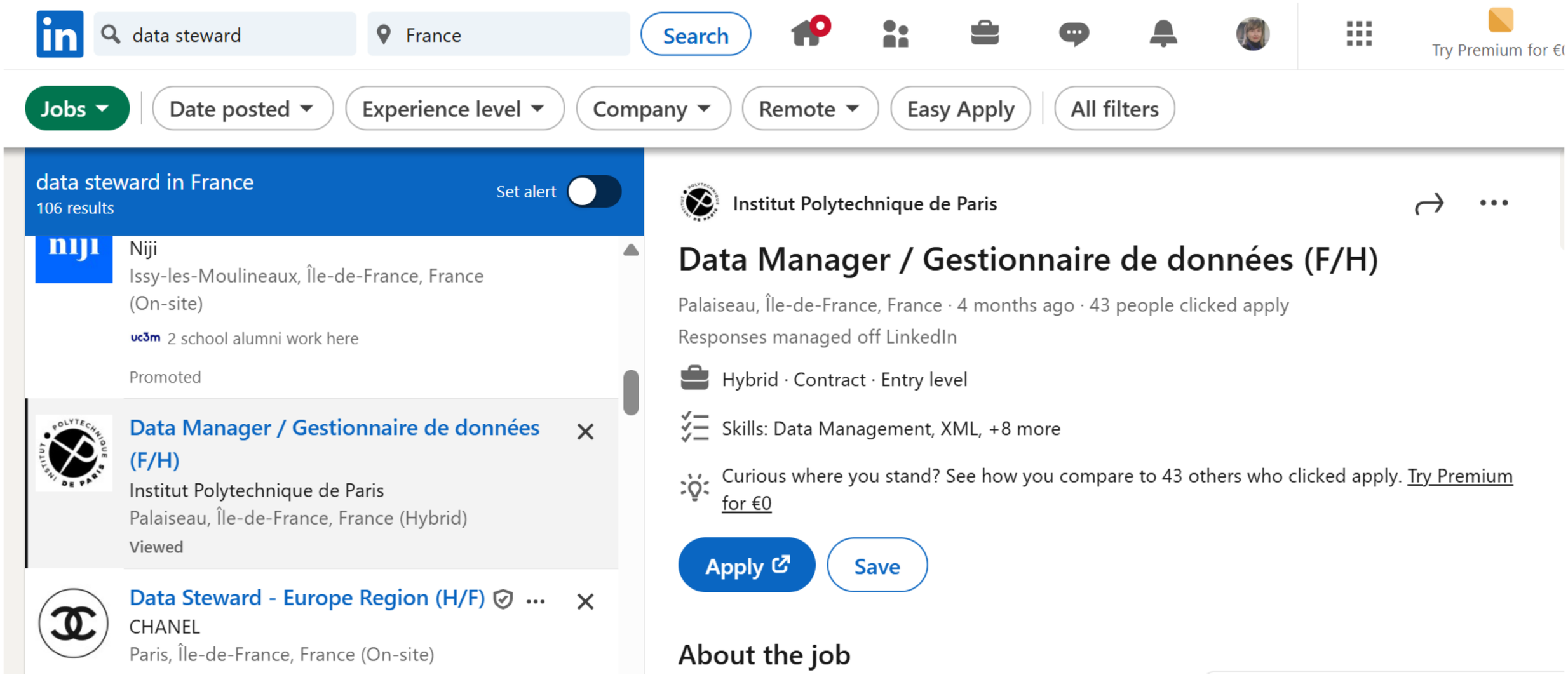
Data stewards: Job offers (Spain)



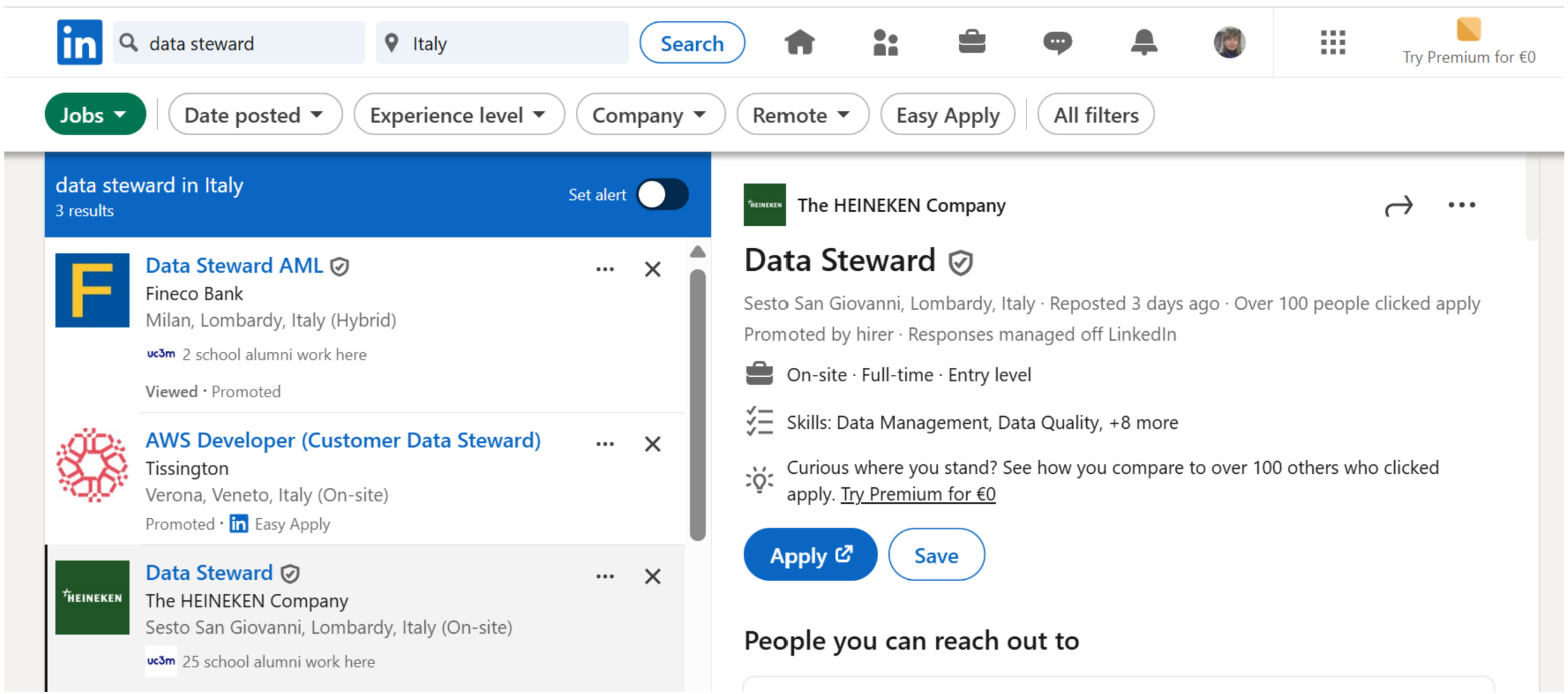
Data stewards: Job offers (Netherlands)



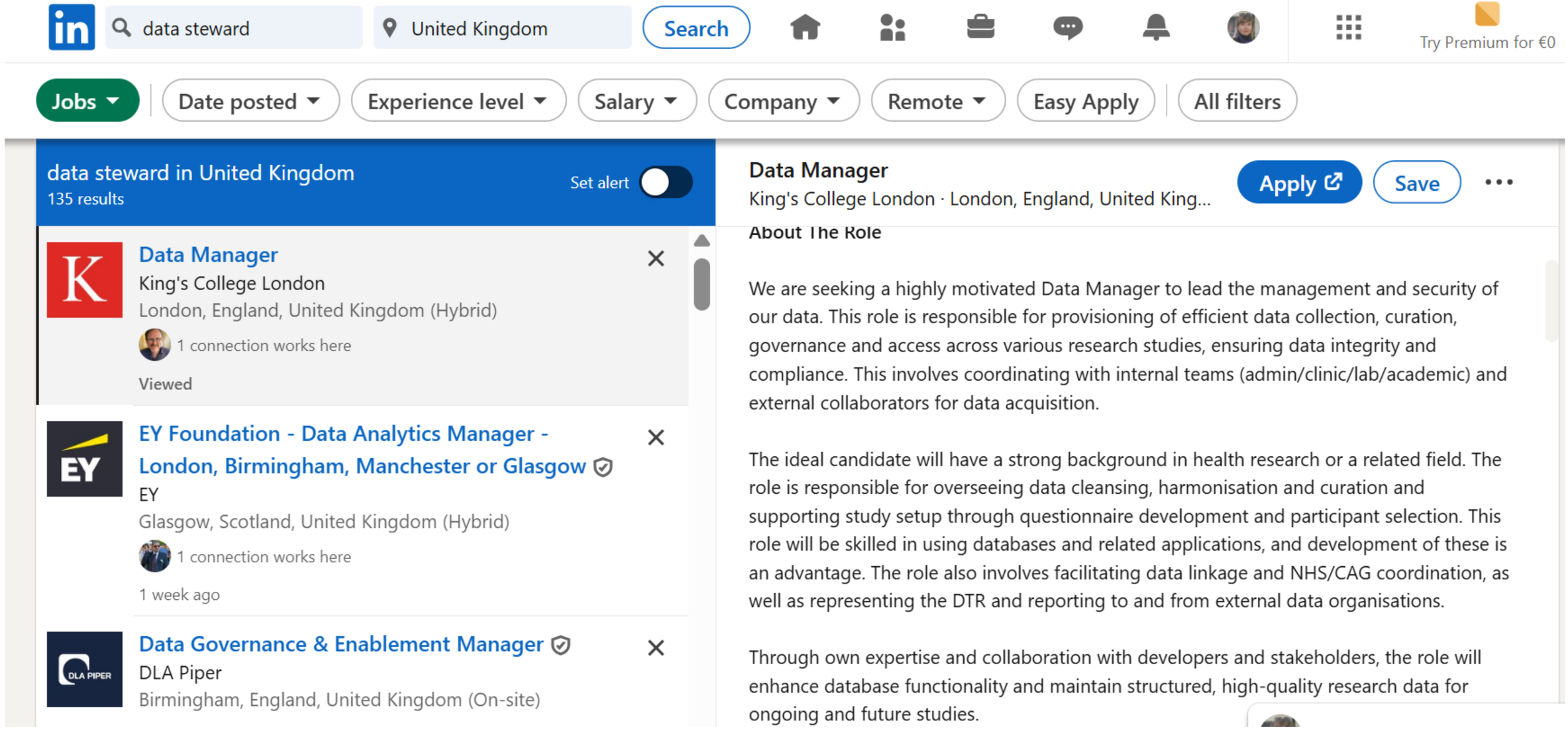
Data stewards: Job offers (France)



Data stewards: Job offers (Italy)



Data stewards: Job offers (UK)



DATA STEWARDS CURRICULUM

Training Skills

Develop and deliver training for researchers and/or support staff's knowledge in Open Science, FAIR and other data management related topics.

Research Data Management

Essential skills and knowledge required for proficient data management throughout the research life cycle.

Research Software Management

Basic components of research software management awareness. Useful when discussing with researchers.

Policy and Governance

Knowledge and skills to take into account when implementing different policies, regulations, and requirements related to data and software management.

Usage Rights and Licenses

Knowledge and resources about usage rights and licensing issues, and apply these while giving advice to researchers.

Ethics

Understand research integrity and ethical concerns related to research projects and learn how to mitigate risks.

Personal Data and GDPR

Assist research projects in compliance in relation to personal data and also understand the basic requirements of GDPR

Transversal/Soft Skills

Develop soft skills that will form the basis of mediation, communication, networking and support work

Made with Napkin AI

Supporting eosc Co-funded by the European Union UK Research and Innovation

Skills 4 eosc

- Skills for the European
- Open Science
- Commons

Supporting eosc

Co-funded by the European Union

UK Research and Innovation

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Thank you!!!

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