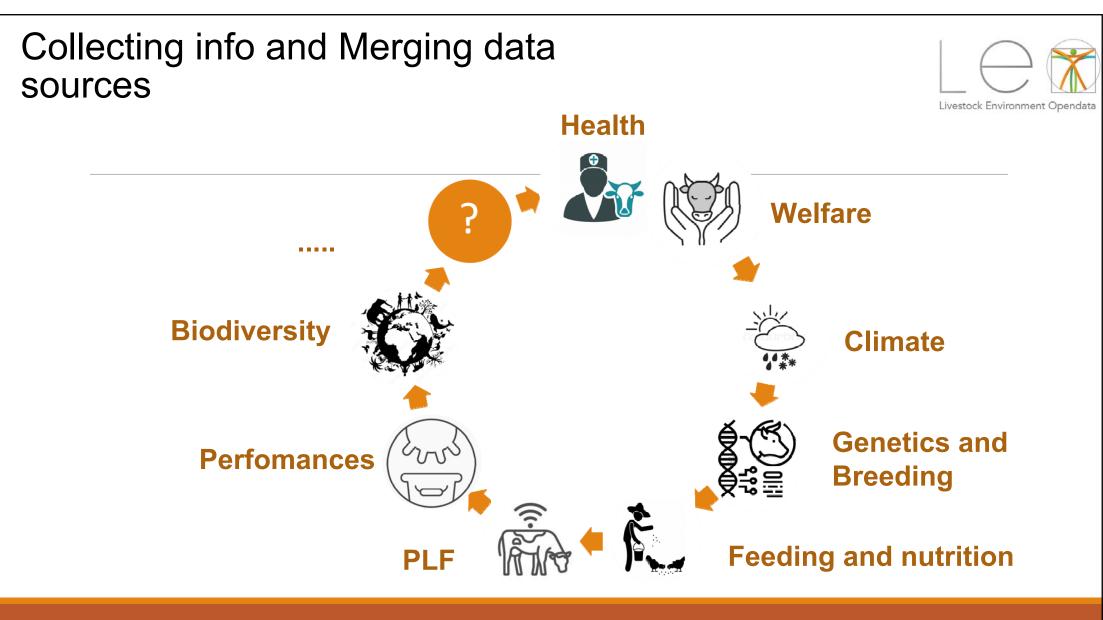






LEO: A National-wise open big-data facility on livestock

Riccardo Negrini negrini.r@aia.it



LEO consortium

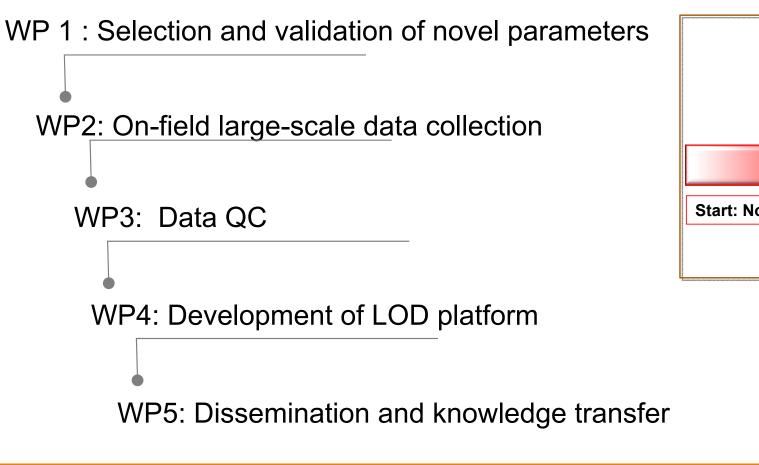


Livestock Environment Opendata



LEO WP plan and timeframe





Month 56 Start: Nov 2017 End: June 2023

LEO data collection



100 Identified and described

$78\,$ validated and in collection

Category	Reviewed	Validated and in collection	
Health and welfare	51	31	
Extension services	36	35	
Farm and animal identification	6	6	
Environmental sustainability	7	6	
TOTALE	100	78	

LEO farmer's engagement





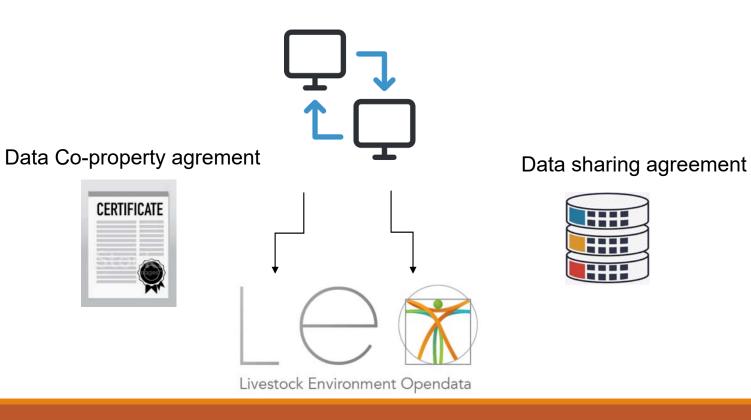


Up to now almost **18,000** geo-located farms involved

DATABASE sharing with LEO



9 national wise database linked to LEO



LEO in figures





Animals: Almost 5M animals among which 500,000 from local breeds



Lab: about 90M analysis



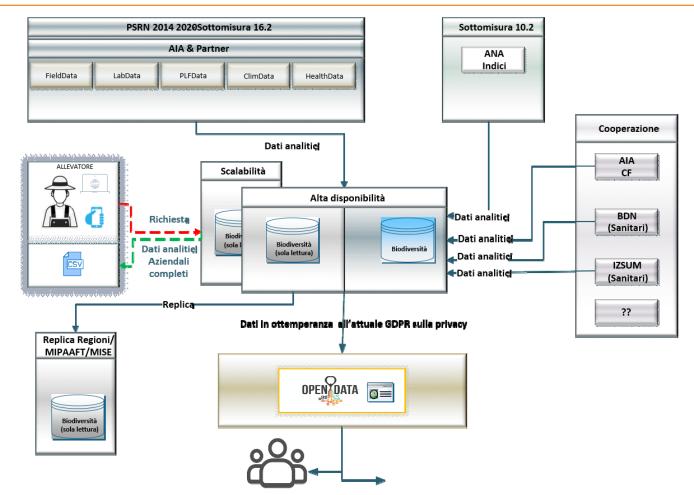
Dataflow: more than 40M data and info recorded per year



LEO database (3:53 PM may 25th): 2,925,401,419 records

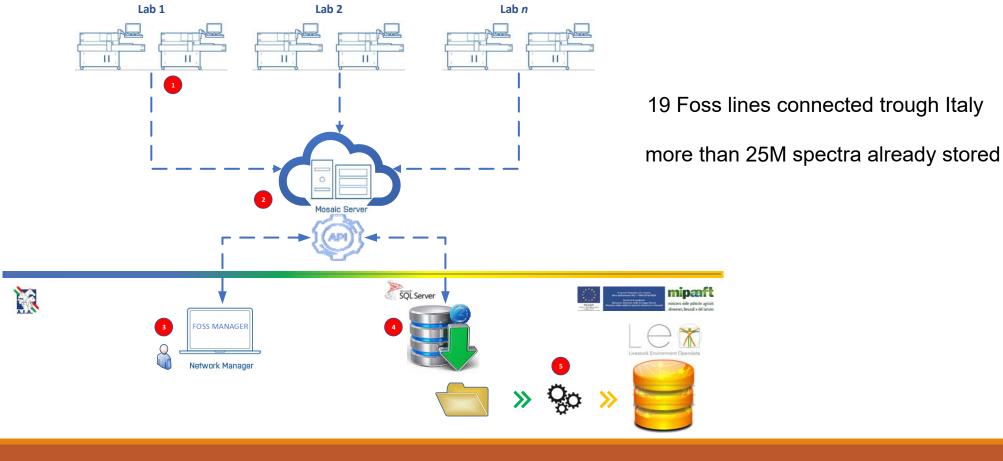


LEO informatic architecture



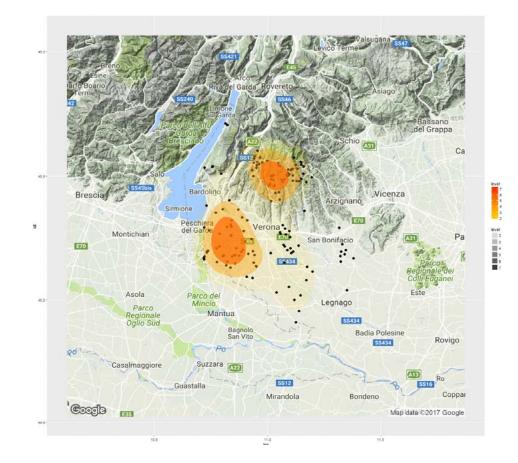
LEO: MIR spectra collection





Dinamic risk mapping





Verona Province

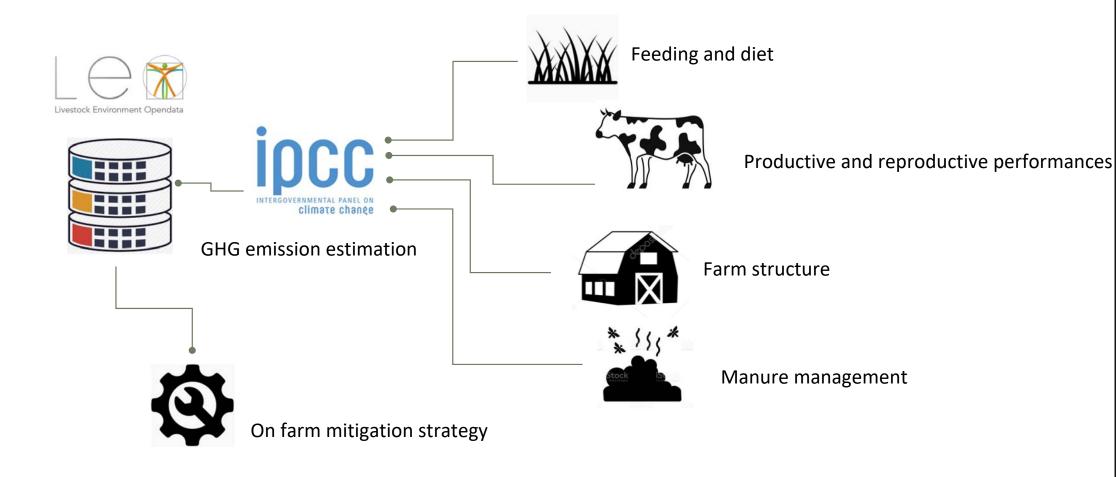
Jan-Dec 2018

Ketosis (proxy: BHB)

Farm with >30% cows at risk

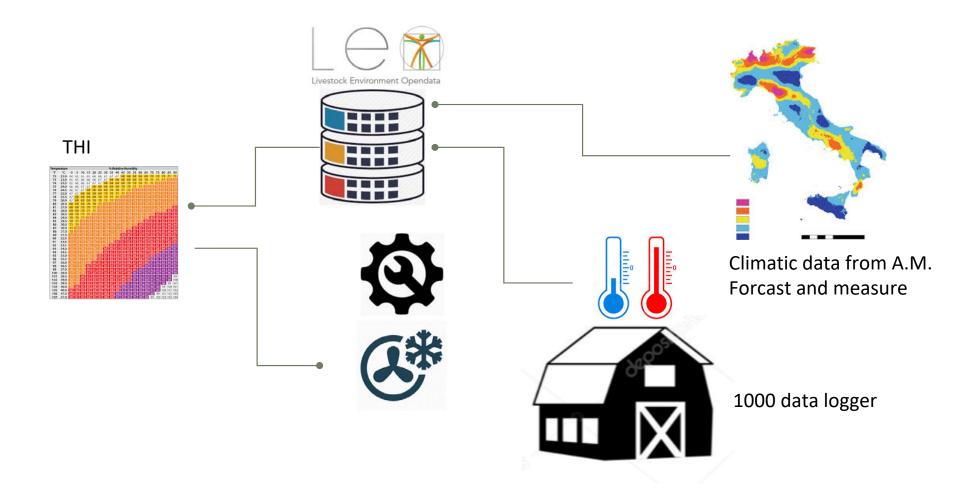
Mitigation of Environmental impact





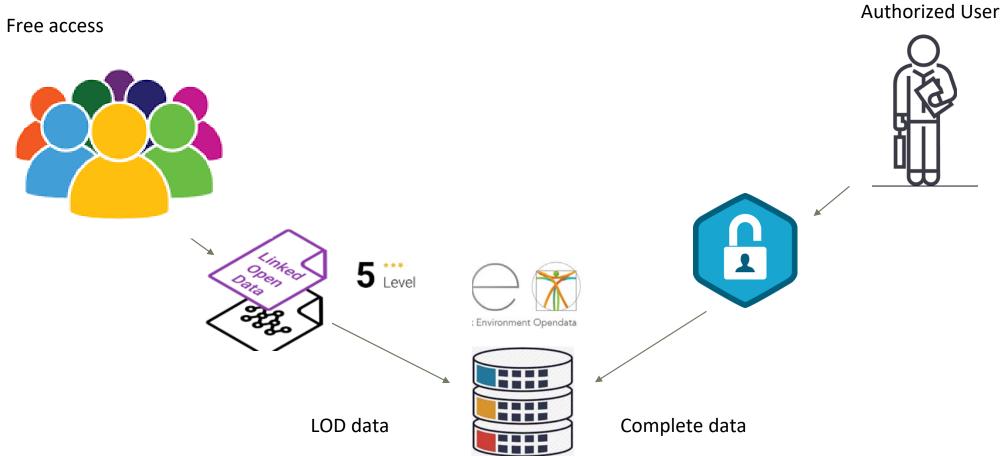
LEO next DATA: Climate

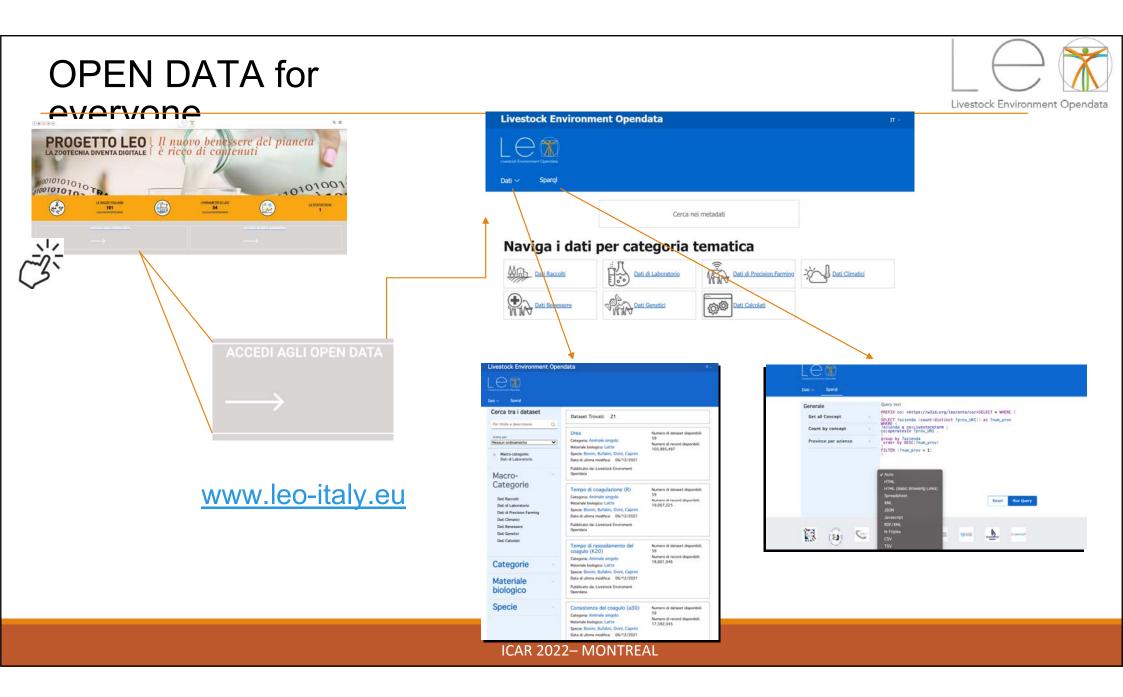




LEO data accessibility







Authorized access for extension services



LEO: shared with breeders for novel selection pourposes

Adaptation to climatic changes

Resistance resilience to novel and less novel diseases

Environmental sustainability/efficiency

Antimicrobial reduction and welfare

Nutraceutical components

Management traits (e.g. automated milking, behavior)



Thanks for being here

www.leo-italy.eu



Livestock Environment Opendata



Fondo Europeo Agricolo per lo Sviluppo Rurale "l'Europa investe nelle zone rurali" Progetto finanziato nell'ambito della Sottomisura 16.2 - PSRN 2014/2020 Programma di Sottuppo rusale nazionale 2014 - 2020 PROGRAMMA di Sottuppo rusale nazionale 2014 - 2020 PROGRAMMA di Sottuppo rusale nazionale 2014 - 2020 PROGRAMMA di Sottuppo rusale nazionale 2014 - 2020

Autorità di gestione: Direzione Generale dello Sviluppo Rurale Ministero delle politiche agricole alimentari e forestali





ministero delle politiche agricole alimentari e forestali