

“Rilevanza dei materiali di riferimento certificati per il settore lattiero-caseario”

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Coordinatrice Analisi Latte e Validazione Strumenti e Metodi

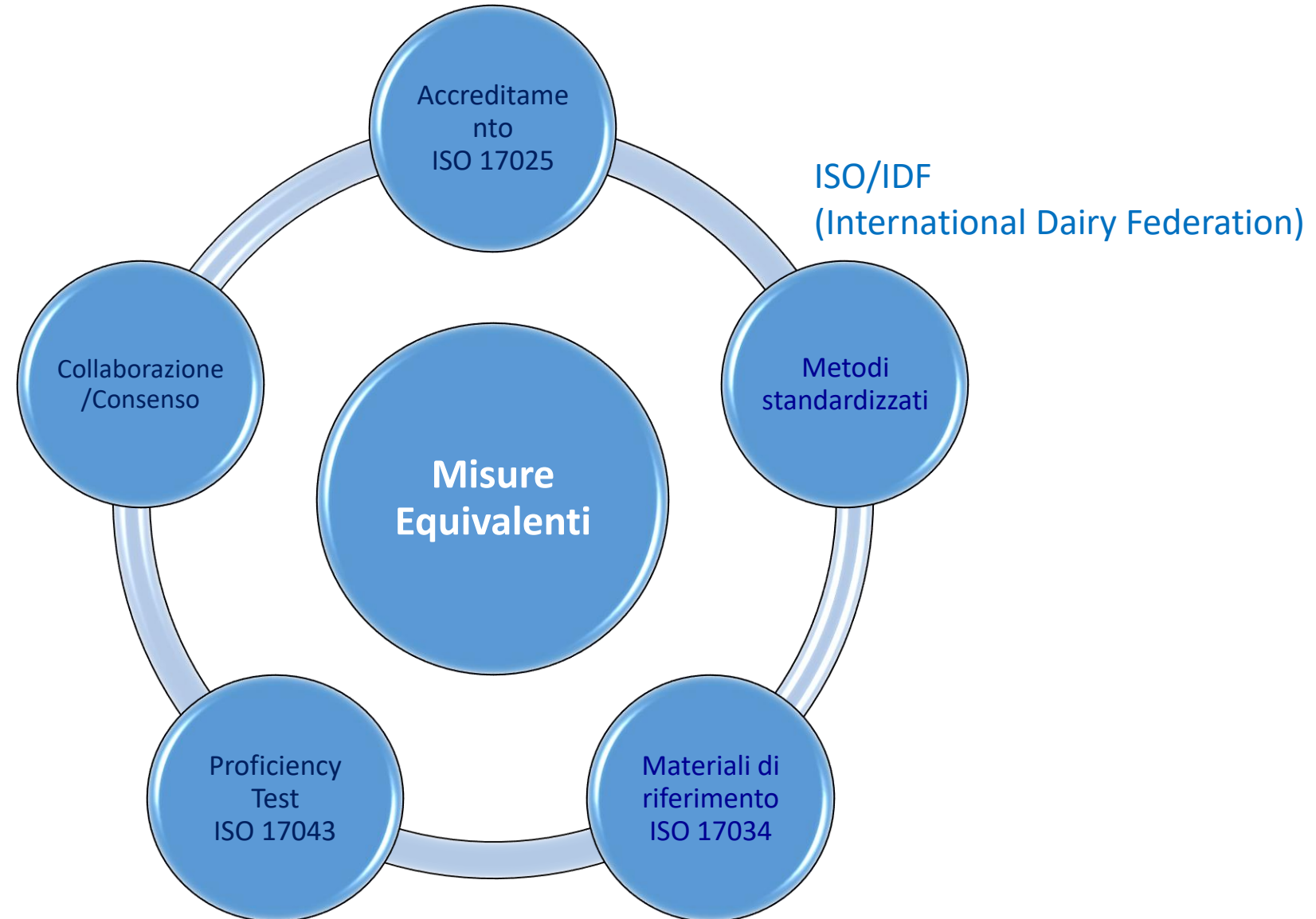


THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Quali sono gli strumenti utili per ottenere risultati equivalenti ?



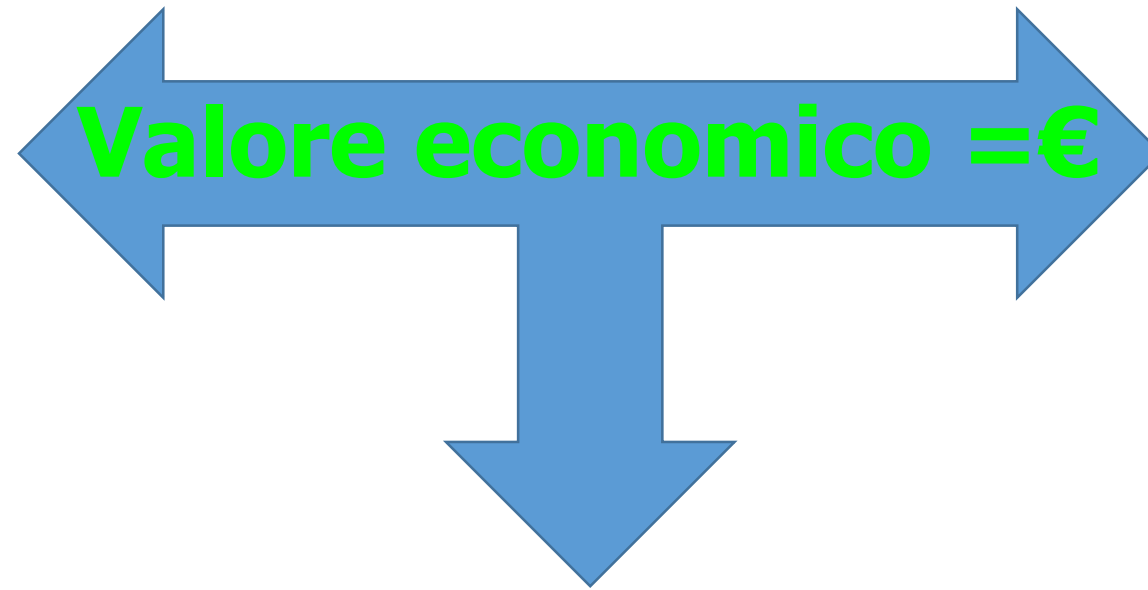
THE GLOBAL STANDARD FOR LIVESTOCK DATA



Importanza dei materiali di riferimento nel settore lattiero caseario: Es. parametro cellule somatiche

Numero di campioni analizzati annualmente: >500.000.000 tests/anno !

SCC indicatore dello stato di salute della mammella=benessere animale



Parametro richiamato nel regolamento (i.e. EU 853/2004) pacchetto igiene per il conferimento del latte crudo

Gestione aziendale e programmi di selezione genetica





Il progetto “Reference System for Somatic Cell Counting” é una iniziativa IDF/ICAR iniziata nel 2009.....

Un sistema di ancoraggio ben strutturato nutrito da differenti tipi di informazioni (risultati DMSCC, Routine e PT) provenienti da sorgenti con certificata tracciabilità e competenza, accettate dagli utilizzatori e riconosciute ed approvate dalle autorità competenti.

Bulletin of the International Dairy Federation 427/2008

Towards a Reference System for
Somatic Cell Counting in Milk

2. Architecture of reference systems, status quo of Somatic Cell Counting and concept for the implementation of a reference system for Somatic Cell Counting

C. Baumgartner¹

Summary

The definition of “reference” relates to two meanings. One relates to “testimonial”, “endorsement” or “certification”, the other to the aspect of “information”, “evidence” or “source”. These notions are a good description of the purpose of reference systems, which are intended to complement and improve the traditional way of calibration of routine methods.

Elementi essenziali RSSCC



Progetto Reference System for Somatic Cell Counting RSSCC (2009)

4 Continenti
16 Paesi
26 Membri

EU NRL

Laboratori di analisi

Produttori RM & PT

Università & Centri di Ricerca

Costruttori di strumenti analisi latte

IDF/ICAR Project Group



Questionario sui Mrs per SCC in 2010

Matrice



- Latte crudo
- Latte trattato C°
- cellule del latte
- Cellule diverse/particelle sintetiche
- Latte di singola bovina
- latte di massa

Range

- 80.000-1.800.000
- 150.000- 1.300.000
- 200.000 – 500.000
- 80.000 - 800.000

Caratterizzazione

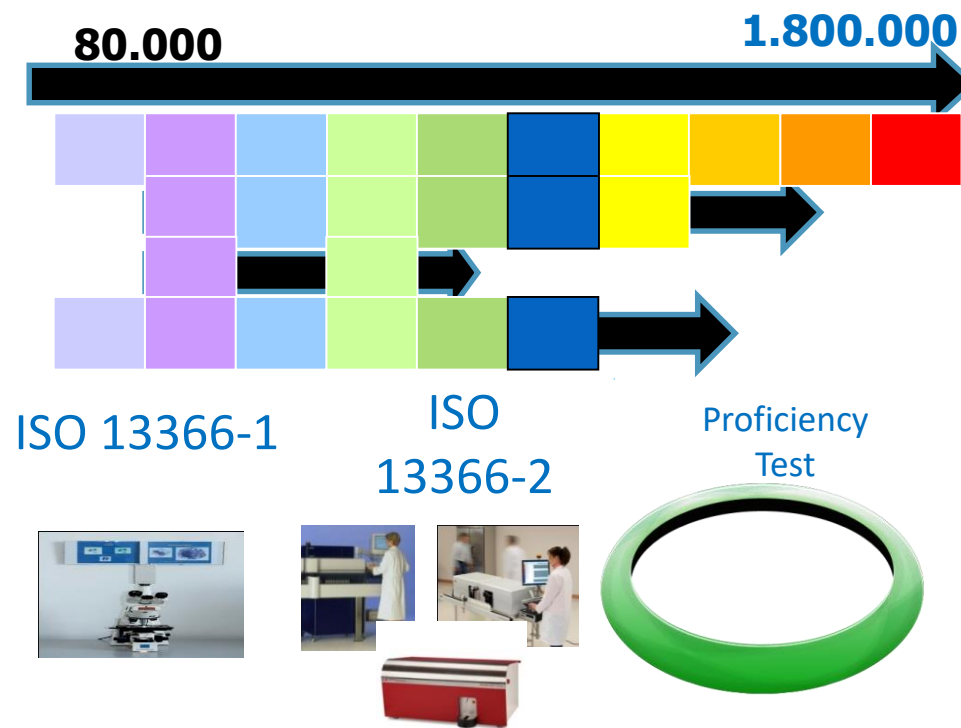
- Metodo di riferimento ISO 13366-1
- Metodi di routine ISO 13366-2
- Combinazione di metodi

Conservanti

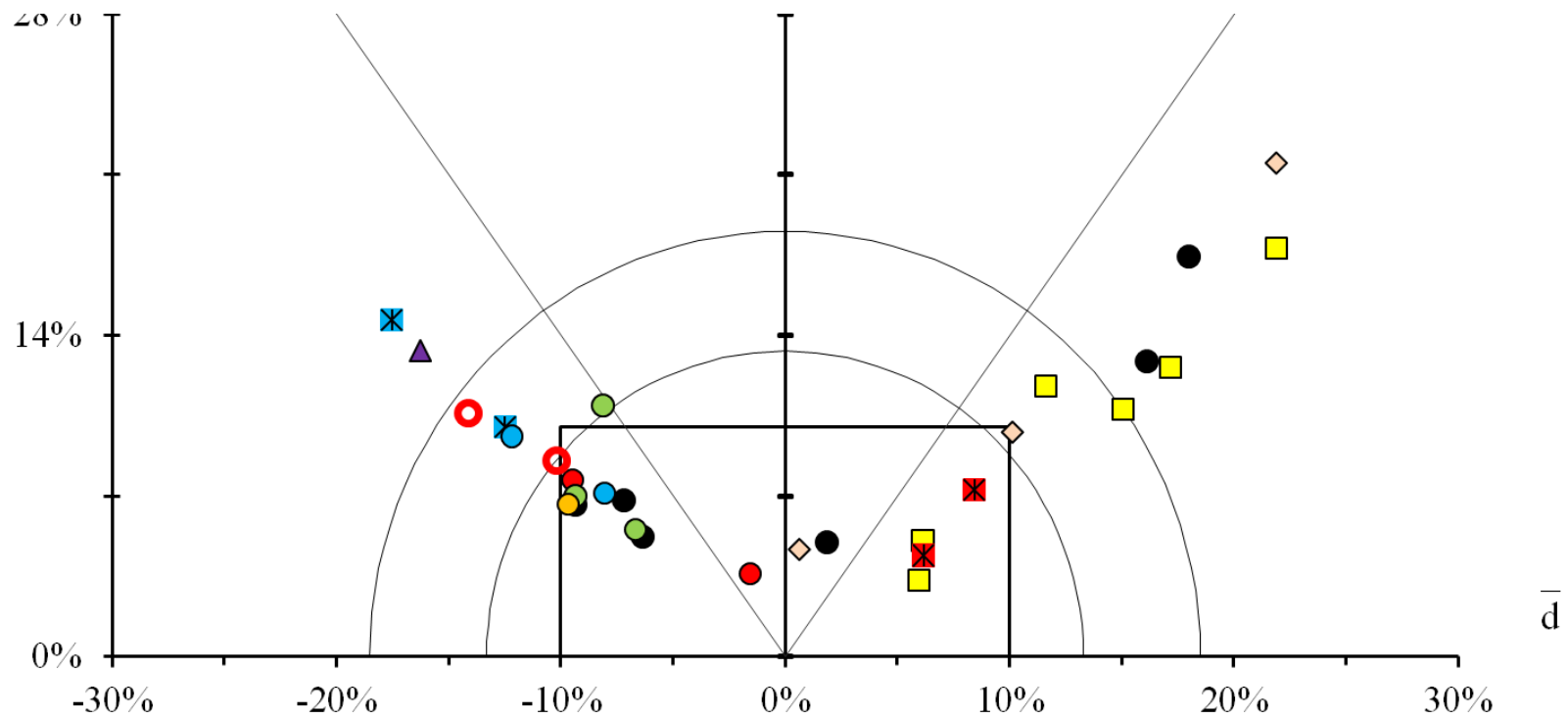
Diversi in qualità e concentrazioni

Shelf life

da 1 a 16 settimane



ICAR PROFICIENCY TEST (ISO 17043)



Cosa abbiamo realizzato in questi anni ?

ICAR/IDF

RSSCC

Raccolto informazioni

Questionari produttori MR

Questionari per i laboratori di routine

Questionario di interesse per un CRM

Disseminato informazioni



Meetings/ Presentazioni



Presentazioni Informate Agenzie
Regolamentazione
(EU/USDA/NIST/MPI/NMI/BIPM)



Pubblicazioni Newsletters/Posters



Informazioni su IDF e ICAR
website

Collaborazione con EU JRC (2014)

Preparazione di un materiale di riferimento primario certificato per la conta delle cellule somatiche nel programma di lavoro 2015-2016 Lavoro di collaborazione iniziato nel 2014 Analisi, organizzazione del processo e studi di fattibilità
Test sui protocolli di preparazione Produzioni di differenti batches con tecniche differenti per poter produrre una grande quantità di prodotto stabile nel tempo

Progetto Reference System for Somatic Cell Counting RSSCC (2009-2020)

Il video é disponibile seguendo il link indicato



<https://www.icar.org/index.php/technical-bodies/sub-committees/milk-analysis-sub-committee-landing-page/>

ERM-BD001 MILK POWDER (somatic cell count, SCC)



<https://crm.jrc.ec.europa.eu/p/q/BD001/ERM-BD001-MILK-POWDER-somatic-cell-count-SCC/ERM-BD001>

Disponibile
dal
10 Febbraio 2020

JOINT RESEARCH CENTRE
Directorate F – Health, Consumers and Reference Materials

CERTIFICATE OF ANALYSIS

ERM[®]- BD001a

MILK		
Cell concentration		
	Certified value ¹⁾ [cells/mL]	Uncertainty ⁴⁾ [cells/mL]
Somatic cell count (SCC) ¹⁾	64000	8000
Somatic cell count (SCC) ²⁾	62000	6000

¹⁾ As defined in ISO 13366-1. The certified value is the mean value of 14 accepted data sets obtained from ISO 13366-1-compliant measurements.


²⁾ As defined in ISO 13366-1 and ISO 13366-2. The certified value is the mean value of 14 accepted data sets obtained from ISO 13366-1-compliant measurements and 14 data sets randomly selected out of 32 accepted data sets obtained from ISO 13366-2-compliant measurements.

³⁾ Certified values are values that fulfil the highest standards of accuracy and represent the unweighted mean value of the means of accepted sets of data, each set being obtained in a different laboratory and with methods of determination referred to in footnotes 1 and 2. The certified value and its uncertainty are traceable to the International System of units (SI).


⁴⁾ The uncertainty of the certified value is the expanded uncertainty with a coverage factor $k = 2$ corresponding to a level of confidence of about 95 % estimated in accordance with ISO/IEC Guide 98-3, Guide to the Expression of Uncertainty in Measurement (GUM:1995), ISO, 2008.

This certificate is valid for one year after purchase.
Sales date:
The minimum amount of sample to be used is 3 g.

Geel, January 2020



Signed: 

Dr. Stefanie Trappmann
Head of Unit Reference Materials (acting)
European Commission, Joint Research Centre
Directorate F – Health, Consumers and Reference Materials
Retsseweg 111
B-2440 Geel, Belgium



Registration No. 269-IRM
ISO 17024 for the
production of reference materials

All following pages are an integral part of the certificate.
Page 1 of 5

JOINT RESEARCH CENTRE
Directorate F – Health, Consumers and Reference Materials

CERTIFICATE OF ANALYSIS

ERM[®]- BD001b

MILK		
Cell concentration		
	Certified value ¹⁾ [cells/mL]	Uncertainty ⁴⁾ [cells/mL]
Somatic cell count (SCC) ¹⁾	1202000	121000
Somatic cell count (SCC) ²⁾	1166000	79000

¹⁾ As defined in ISO 13366-1. The certified value is the mean value of 13 accepted data sets obtained from ISO 13366-1-compliant measurements.


²⁾ As defined in ISO 13366-1 and ISO 13366-2. The certified value is the mean value of 13 accepted data sets obtained from ISO 13366-1-compliant measurements and 13 data sets randomly selected out of 32 accepted data sets obtained from ISO 13366-2-compliant measurements.

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Caratterizzazione CRM-SCC



Actalia Cecalait, Poligny, FR

(measurements under the scope of ISO/IEC 17025 accreditation by Cofrac; accreditation number 1-5577)

Agroscope, Bern, CH

(measurements under the scope of ISO/IEC 17025 accreditation by SAS; accreditation number STS 077)

Bentley Instruments SARL, Maroeuil, FR

Bulgarian Food Safety Agency, Food Safety and Quality Laboratory, Sofia, BG

(measurements under the scope of ISO/IEC 17025 accreditation by Bulgarian Accreditation Service;

accreditation

number A 385-2)

Israeli Cattle Breeders' Association, Central milk lab, Caesarea, IL

(measurements under the scope of ISO/IEC 17025 accreditation by ISRAC; accreditation number 164)

Centre Wallon de Recherches Agronomiques, Gembloux, BE

(measurements under the scope of ISO/IEC 17025 accreditation by BELAC; accreditation number 189-TEST)

Delta Instruments B.V., Drachten, NL

Dairy laboratory Ltd., Ulbroka, LV

(measurements under the scope of ISO/IEC 17025 accreditation by LATAK; accreditation number LATAK-T-

283-

12-2003)

Eastern Laboratory Services (ELS), Medina, US

FOSS Analytical A/S, Hillerød, DK

INTI Lácteos, Rafaela, AR

(measurements under the scope of ISO/IEC 17025 accreditation by OAA; accreditation number LE 075)

Institute of Food Safety, Animal Health and Environment BIOR, Riga, LV

(measurements under the scope of ISO/IEC 17025 accreditation by LATAK; accreditation number LATAK-T-012-

29-95)

Istituto Zooprofilattico Sperimentale del Lazio e della Toscana, Roma, IT

(measurements under the scope of ISO/IEC 17025 accreditation by Accredia; accreditation number 0201)

Laboratoire interprofessionnel d'analyses laitières du massif central, Aurillac, FR

(measurements under the scope of ISO/IEC 17025 accreditation by Cofrac; accreditation number 1-0196)

Laboratorio agroalimentario de Santander, Santander, ES

(measurements under the scope of ISO/IEC 17025 accreditation by ENAC; accreditation number 517/LE1040)

Max Rubner-Institut, Bundesforschungsinstitut für Ernährung und Lebensmittel, Institut für

Sicherheit und Qualität bei Milch und Fisch, Kiel, DE

(measurements under the scope of ISO/IEC 17025 accreditation by DAkkS; accreditation number D-PL-18156-02-

00)

Melkcontrolecentrum Vlaanderen, Lier, BE

(measurements under the scope of ISO/IEC 17025 accreditation by BELAC; accreditation number 096-TEST)

MilkTestNZ, Hamilton, NZ

(measurements under the scope of ISO/IEC 17025 accreditation by IANZ; accreditation number 1168)

(measurements under the scope of ISO/IEC 17025 accreditation by IANZ; accreditation number 1168)

National Milk Laboratories Ltd., Glasgow, GB

(measurements under the scope of ISO/IEC 17025 accreditation by UKAS; accreditation number 2051)

National Milk Laboratories Ltd., Wolverhampton, GB

(measurements under the scope of ISO/IEC 17025 accreditation by UKAS; accreditation number 2700)

National Veterinary Research Institute, Department of Hygiene of Food of Animal Origin,

Puławy, PL

(measurements under the scope of ISO/IEC 17025 accreditation by PCA; accreditation number AB 485)

Qlip N.V., Zutphen, NL

(measurements under the scope of ISO/IEC 17025 accreditation by RvA; accreditation number L 099)

QSE GmbH (subsidiary of Milchprüfing Bayern e.V.), Wolnzach, DE

State Enterprise Pieno Tyrimai, Kaunas, LT

(measurements under the scope of ISO/IEC 17025 accreditation by Lithuanian National Accreditation Bureau;

accreditation number LA.01.106)

State Veterinary and Food Institute, Bratislava, SK

(measurements under the scope of ISO/IEC 17025 accreditation by Slovak National Accreditation Service;

accreditation number S-127)

United States Department of Agriculture, Agricultural Marketing Service (USDA-AMS), Dairy

Programme - Southwest Federal Milk Marketing Order 126, Carrollton, US

United States Department of Agriculture, Agricultural Marketing Service (USDA-AMS), Dairy

Programme - Central Federal Milk Marketing Order 32, Lenexa, US

United States Department of Agriculture, Agricultural Marketing Service (USDA-AMS), Dairy

Programme - Appalachian Federal Milk Marketing Order 5, Louisville, US

University of Guelph, Lab Services Division, Agriculture and Food Laboratory, Guelph, CA

(measurements under the scope of ISO/IEC 17025 accreditation by Standards Council of Canada; accreditation

number 100)

University of Zagreb, Faculty of Agriculture, Department of Dairy Science, Zagreb, HR

(measurements under the scope of ISO/IEC 17025 accreditation by Croatian Accreditation Agency; accreditation

number 1081)

Valacta, Ste-Anne-de-Bellevue, CA

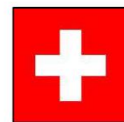
(measure

ments under the scope of ISO/IEC 17025 accreditation by Slovenian Accreditation Agency; accreditation

number LP-021)

measurements under the scope of ISO/IEC 17025 accreditation by Standards Council of Canada; accreditation

number 99)

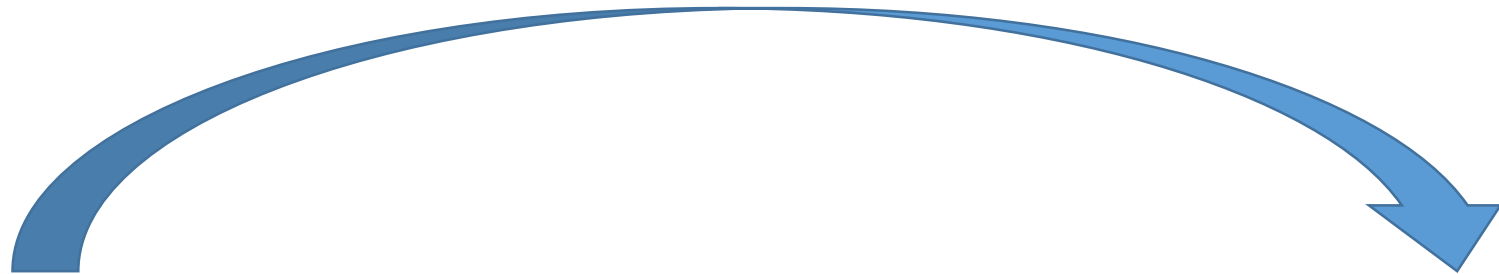


32 laboratori

Ag. Regolamentazione (USDA-IZS RM)
Produttori di materiali di riferimento (DE-NL)
Produttori di circuiti interlaboratorio (DE-NL)
Associazioni Allevatori (Israele)

Laboratori di routine
Laboratori di riferimento nazionali
Costruttori di strumentazione analitica

Conclusione



PROGETTO

Applicato nella realtà

Sistema di Riferimento

Un sistema di ancoraggio ben strutturato nutrito da differenti tipi di informazioni (risultati DMSCC, Routine e PT) provenienti da sorgenti con certificata tracciabilità e competenza, accettate dagli utilizzatori e riconosciute ed approvate dalle autorità competenti.



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1. Il RSSCC ha richiesto anni di impegno creando un “suolo fertile” all’accettazione del nuovo CRM che con gradualità migliorerà l’equivalenza analitica costruita su una tracciabilità analitica S.I.

2. Ora sarà necessario che gli enti di accreditamento e NMI vengano informati e richiedano l’applicazione del **SCC/ERM-BD001** da parte di enti accreditati es. laboratori e produttori di MR secondari accreditati e PT providers

Grazie per l'attenzione

