

The International EPD[®] System

– A tool for communicating life cycle performance of products and services

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Outline of presentation

- What is an EPD?
- LCA methodology in EPD
- EPD programmes
- Using EPDs

Type III Environmental declarations

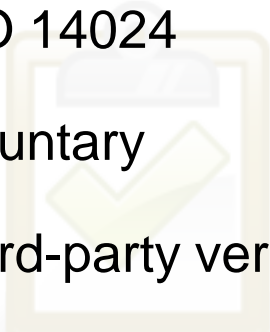


- Commonly referred to as "Environmental Product Declaration" (EPD)
- One of several potential applications of LCA
- Possible to apply for all types of products
- A growing interest – especially in the field of construction products

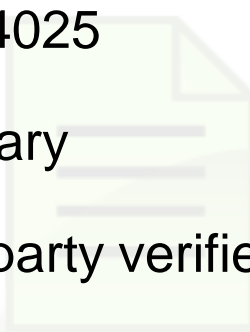
Environmental label

- 
- ISO 14024
 - Voluntary
 - Third-party verified
 - Objectivity ensured via a programme operator
 - **Labeled = "OK"**
according to defined
criteria
- 

Environmental label

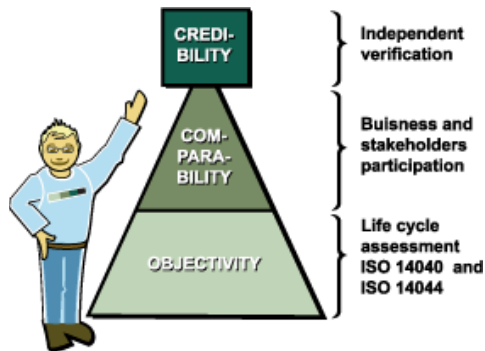
- 
- ISO 14024
 - Voluntary
 - Third-party verified
 - Objectivity ensured via a programme operator
 - **Labeled = "OK"**
according to defined criteria

Environmental declaration

- 
- ISO 14025
 - Voluntary
 - Third-party verified
 - Objectivity ensured via a programme operator
 - **Declared = presented information is comparable and transparent**

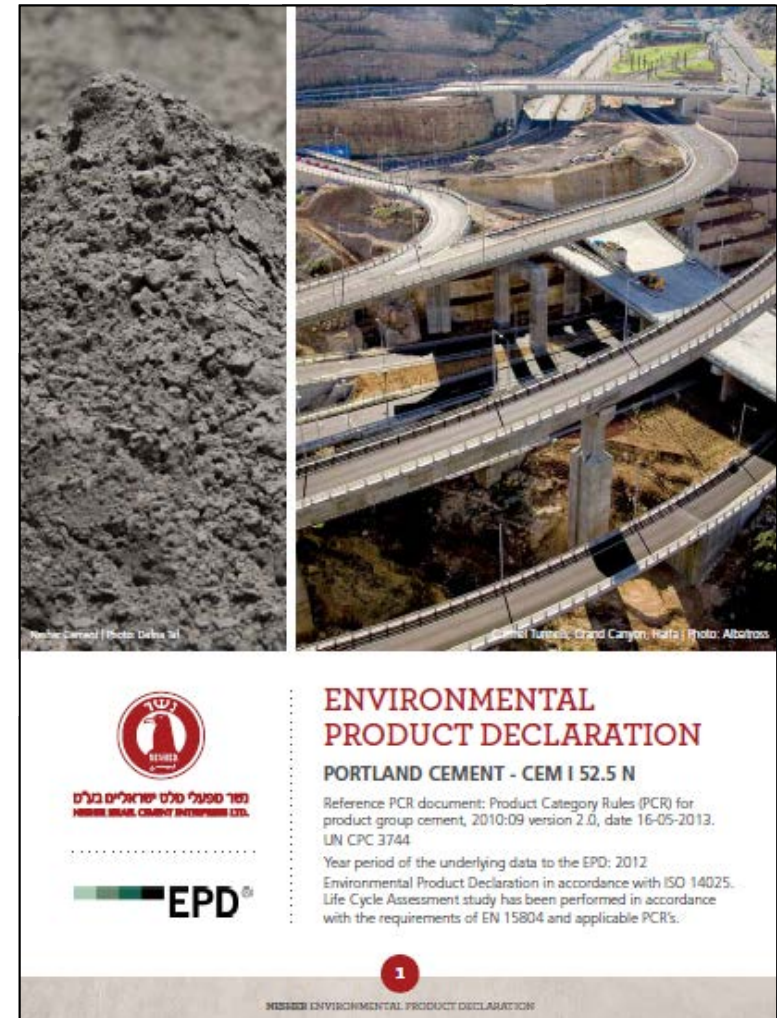
EPD and LCA

- An EPD contains the results of an LCA, but also other relevant information
- Calculations are done according to specific rules and procedures – transparency and comparability
- Reporting format – shorter than an LCA report
- Verified – creditibility
- No comparison – objective information



EPD contents

- Environmental performance (quantitative, qualitative)
- Information about the product
- Content declaration
- Information verification, rules used, programme



Applications

- Green Public Procurement
- Environmental management systems
- Ecodesign
- Business-to-business communication
- Business-to-consumer communication
- Building certification schemes



LCA methodology in EPDs – in general

1. Polluter-pays principle and how to treat material for recycling/use of recycled material
2. Attributional LCA (“book-keeping”)
3. Life cycle stages: upstream, core, downstream
4. Default environmental indicators

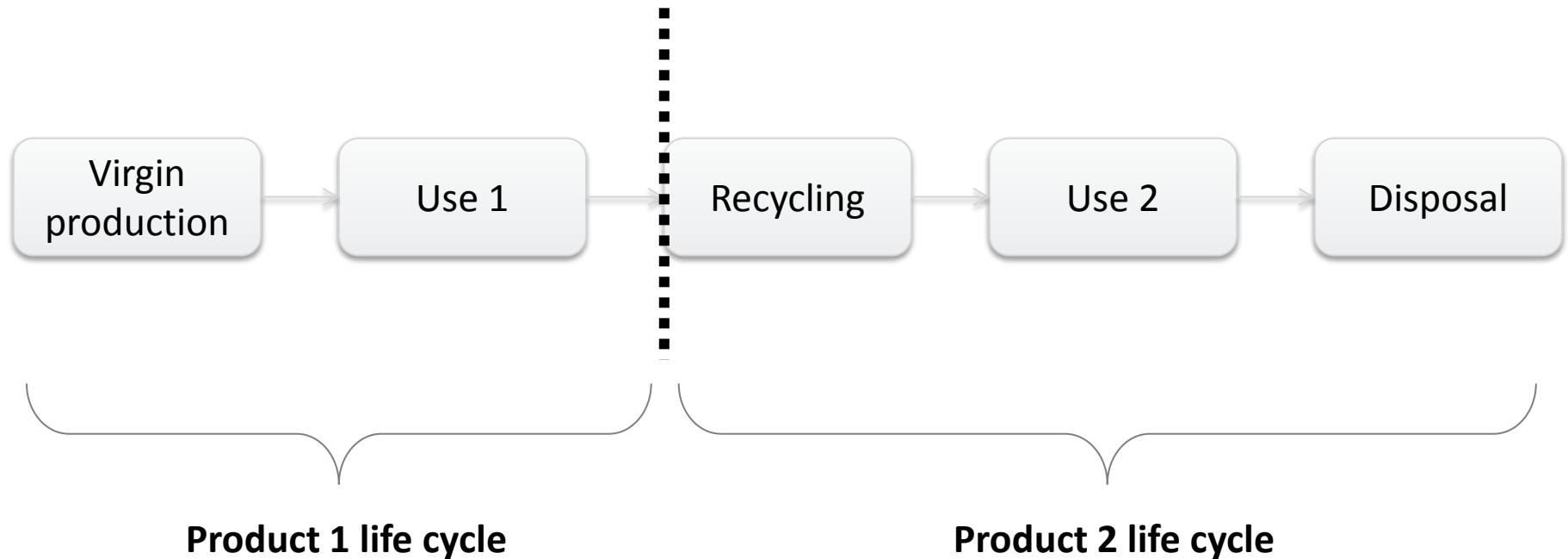
Example:

System boundary for recycled material and material sent to recycling



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System boundary for recycled material and material sent to recycling



Benefits of chosen approach

- Promotes use of recycled materials
- Promotes sending products to reuse/recycling after use
- Additionality
- Possible to collect verifiable data
- Possible to explain

Attributional vs. Consequential

- Attributional LCA gives information about the average product system supply chain to produce and deliver one item of product
- Consequential LCA gives information about the consequences of the decision to purchase one additional item of product
- Today, all (?) EPDs use attributional LCA

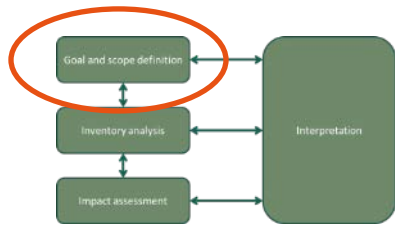
Remaining methodology questions for comparability

- Functional unit
- System boundaries
- Allocation procedure
- Additional indicators for environmental impacts
- Additional environmental information (beyond information from LCA)

=> Product Category Rules (PCR)



Product Category Rules



- Rules for a defined product category
 - LCA methodology
 - Format of reporting in EPD
- Ensures comparability within the same category
- Simplifies the “goal and scope” of LCA study
- Today >100 PCRs available

Different EPD Programmes



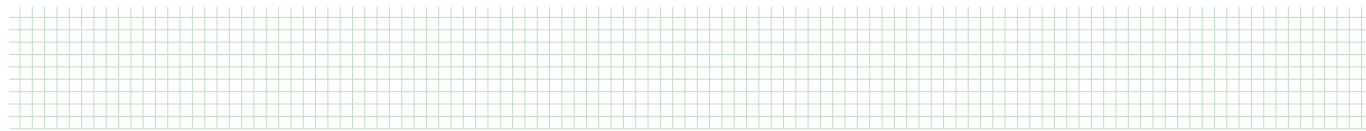
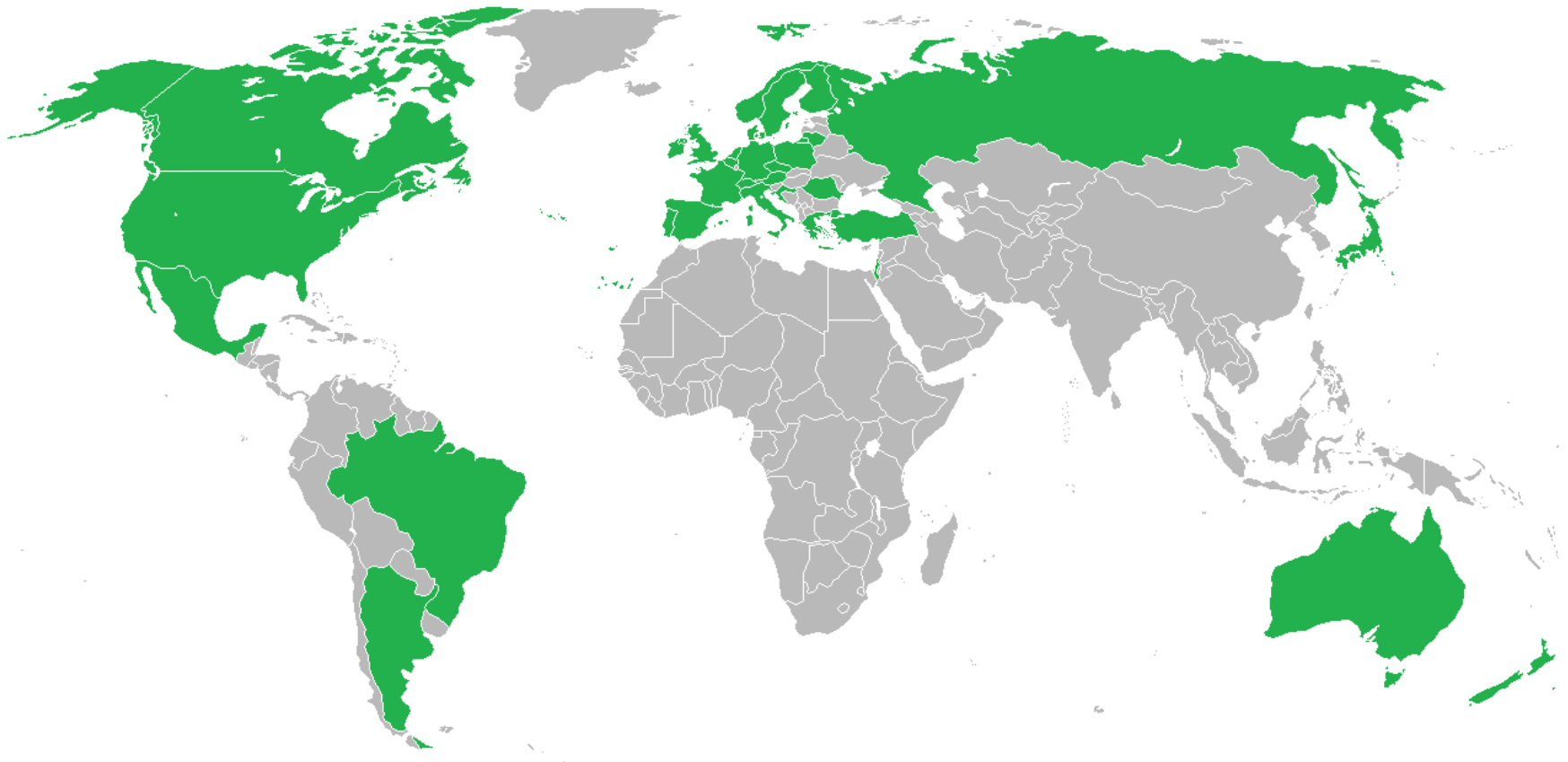
- An EPD is developed in a programme operating in accordance with ISO 14025
- >30 programme operators world-wide – most are very small
- Different scope of programmes
 - Product categories
 - Environmental issues
 - Geographical scope
 - Target audience

The International EPD[®] System

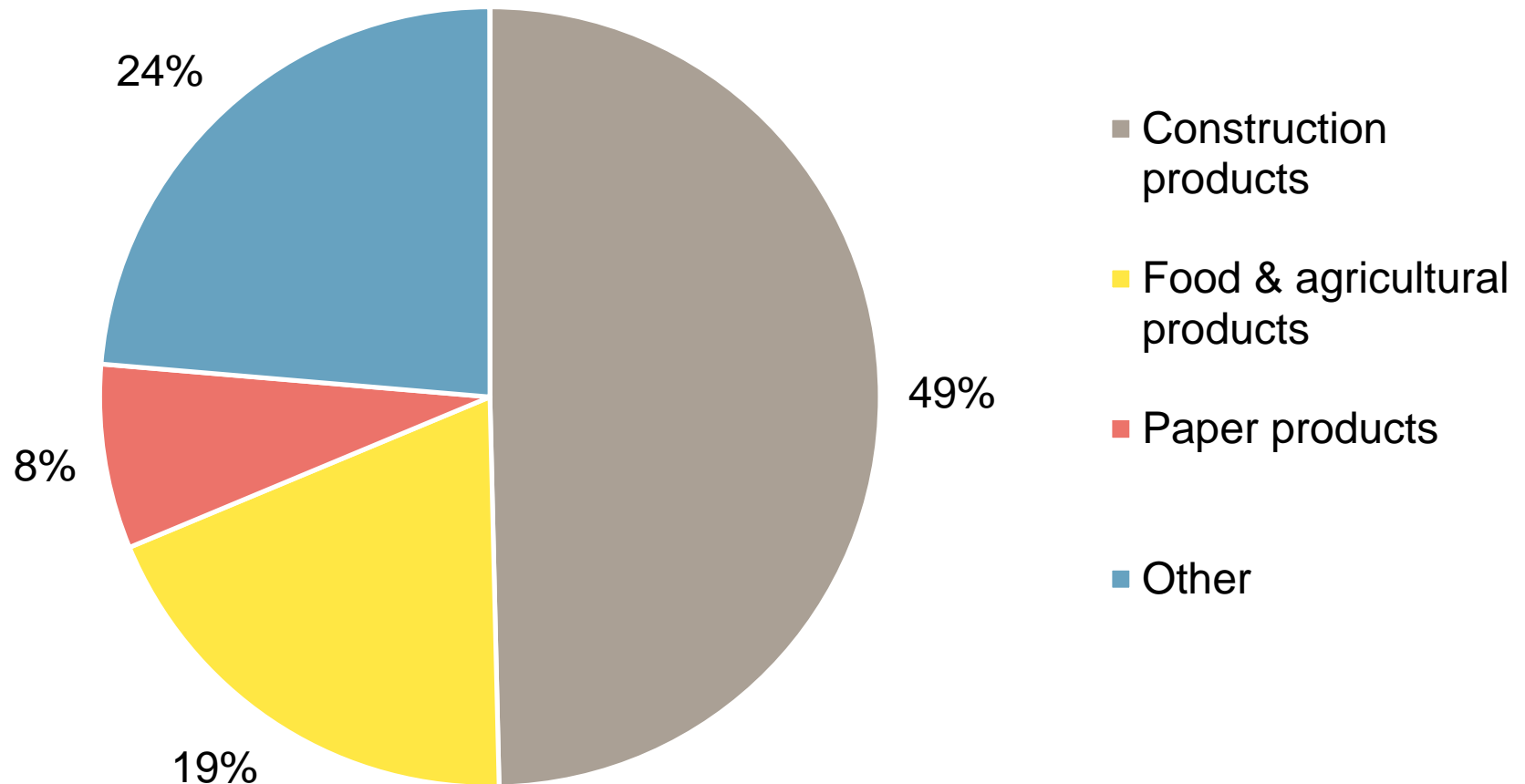


- Started as the "Swedish EPD system" in 1998
- A leading programme for environmental declarations:
 - Countries with registered EPDs – **32**
 - Product categories covered – **all types of goods and services**
- Operated from Sweden, but with regional hubs in other regional

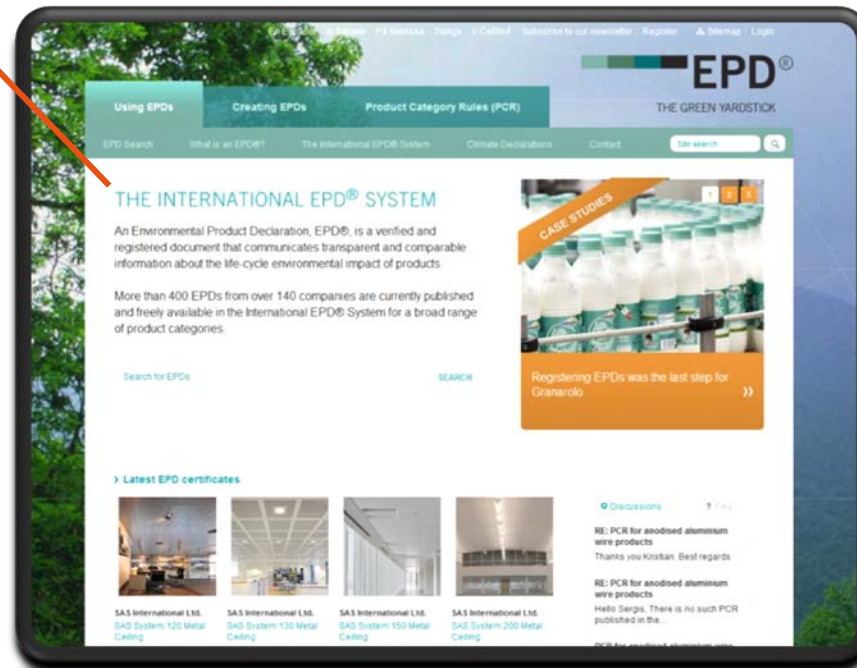




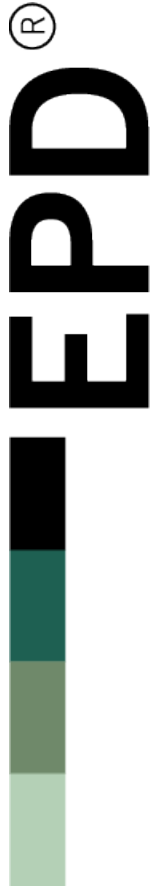
Currently published EPDs per category



>650 EPDs is in open and publically available database



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Using and communicating EPD

- Primarily designed for B2B communication, but open to be used for B2C as well
- Trade-off between making information understandable vs. transparent and complete
- Avoiding confusion with a type II environmental label

General obstacles when using LCA in market communication

- “Too many numbers”
- “Numbers impossible to understand”
- “You can get any result you want with LCA”
- “Doesn’t cover everything”
- “Too many initiatives – not comparable!”



Example 1: Vattenfall

- Swedish power company
- Registered the first EPD already in 1999
- Today: five EPDs for power generation in the Nordic countries
- Using EPDs to show life-cycle environmental impact of different power plants, and electricity mixes combined with guarantees of origin





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MILJÖDEKLARATIONER VISAR ELENS URSPRUNG

Miljömedvetenheten ökar bland svenska företag och det tycker vi är jättebra. Ett sätt för företag att visa sin egen aktiva roll för en bättre miljö är att kunna spåra elens ursprung till den kraftkälla du själv önskar. Till exempel så kan du välja att köpa el producerad av vatten eller vind och med hjälp av ursprungsgarantier enkelt bevisa detta.



Att ha en miljödeklaration innebär att du får en tydlig, kvalitetssäkrad och jämförbar information om den miljöpåverkan elproduktionen medför. Vattenfall fick som första företag i världen en miljödeklaration certifierad enligt EPD-systemet, Environmental Product Declaration, genom certifieringen av Luleå älv i Norrland.

EPD-märkt el för företag: Ett miljömedvetet val - Vattenfall




Example 2: Granarolo

- Italian food companies: dairy products, etc.
- 20 EPDs
- Has made attempts to use EPD also for B2C communication





BENESSERE NATURALE

Il latte **Prima Natura Bio** alimenta ogni giorno il benessere tuo e dei tuoi bambini perché nasce tutto naturale da bovine alimentate senza l'impiego di OGM.



RISPETTO DELL'AMBIENTE

È il primo latte biologico ad avere una **dichiarazione ambientale** di prodotto registrata EPD S-P-00209 per misurare gli impatti ambientali di tutta la filiera di produzione.

S-P-00209 EPD®
environdec.com

GUSTO E LEGGEREZZA

Il latte **Prima Natura Bio** Parzialmente Scremato è l'ideale per chi ama il gusto naturale e genuino del latte biologico senza rinunciare alla leggerezza. Inoltre il CSQA, ente specializzato nel settore agro-alimentare, ne certifica la Rintracciabilità e la Filiera controllata.



ALLEVATE CON PASSIONE

Le modalità di conduzione dell'allevamento sono ispirate al massimo rispetto delle condizioni di vita e salute delle bovine da latte. Per questo il latte contenuto in questa bottiglia è il **primo latte in Italia** che ha ottenuto la **Certificazione di benessere animale** rilasciata da CSQA.






CONTROLLATO E CERTIFICATO DA CSQA
www.csqa.it
info@csqa.it
OPERATORE CONTROLLATO N° 51.99.5
ORGANISMO DI CONTROLLO AUTORIZZATO PER L'IMP. DEL BIO DEL
AGRICOLTURA UE PRODOTTO BIOLOGICO

Zona di mungitura: Italia

INFORMAZIONI NUTRIZIONALI

Valori nutrizionali medi per 100 ml

VALORE ENERGETICO	201 kJ 48 kcal
PROTEINE	3,24 g
CARBOIDRATI di cui zuccheri	5,09 g 5,09 g
GRASSI di cui saturi	1,60 g 1,20 g
FIBRA ALIMENTARE	0,0 g
SODIO	0,05 g
CALCIO	120 mg 15% RDA*

Il calcio, di cui il latte è una fonte naturale, contribuisce al mantenimento delle ossa e dei denti.

RDA* = Razione Giornaliera Raccomandata

8002670161359



GRANAROLO

Prima Natura BIO

SOLO LATTE ITALIANO

SOLO 1,6% DI GRASSI

LATTE PARZIALMENTE SCREMATO
DA AGRICOLTURA BIOLOGICA

LATTE PARZIALMENTE SCREMATO

DA AGRICOLTURA BIOLOGICA

LATTE PARZIALMENTE SCREMATO pastorizzato a temperatura elevata, ottenuto da bovini allevati ed alimentati con metodi biologici.

Modalità di conservazione
Conservare in frigorifero tra 0° e +6°C. Da consumarsi entro: vedi data impressa sulla bottiglia.

Consigli d'uso
Questo latte è pronto da bere. Si consiglia di non bollirlo per non alterare le proprietà nutritive.

Servizio consumatori
Numero Verde **800-848015** Lunedì - Venerdì ore 9/13 - 14/18
www.granarolo.it - Area "Contatti"

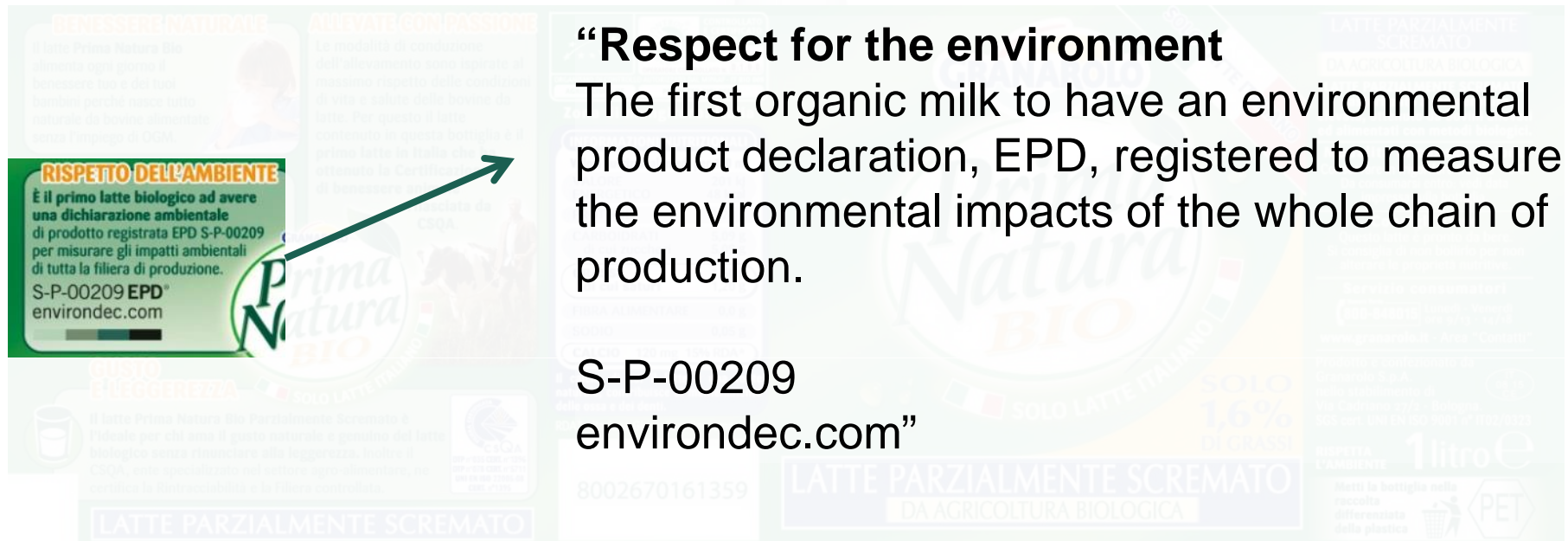
Prodotto e confezionato da Granarolo S.p.A. nello stabilimento di Via Cadriano 27/2 - Bologna. SGS cert. UNI EN ISO 9001 n° IT02/0323

RISPETTA L'AMBIENTE

Metti la bottiglia nella raccolta differenziata della plastica

1 litro e

PET



“Respect for the environment

The first organic milk to have an environmental product declaration, EPD, registered to measure the environmental impacts of the whole chain of production.

S-P-00209
environdec.com”

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 DA AGRICOLTURA BIOLOGICA

8002670161359

1 litro e
 Metti la bottiglia nella raccolta differenziata della plastica

PET

Summary

- EPD – one potential application of LCA
- Voluntary, objective, credible and transparent
- Declaration of impact – no minimum performance requirements
- PCR – sets rules to ensure comparability
- Possible to use for multiple applications

Thank you! Any questions?

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