

The background of the slide is a close-up, high-resolution photograph of numerous green lemons. The lemons are packed closely together, filling the entire frame. They have a vibrant green color with some natural variations in tone and texture, including small dimples and slight yellowing at the stems. The lighting is soft, highlighting the natural sheen of the lemon skin.

**The smarter food vision:
inclusive, safe, traceable**

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The presenter

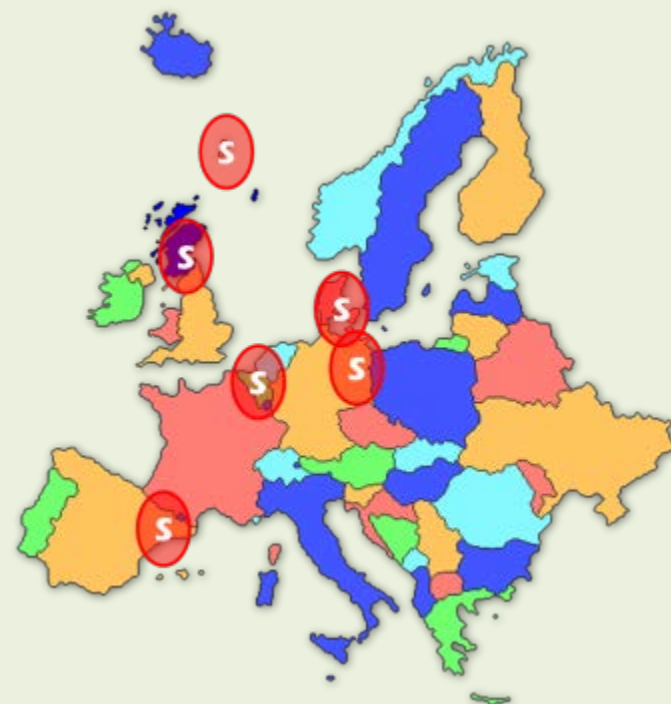
Syntesa – Innovation to market

International consultancy bringing innovation to market.

Headquartered in Copenhagen with subsidiaries on Faroe Islands and Spain.

- Facilitate investor and grant funding
- Marketing of high tech products and services
- Management of innovative projects
- Socio-economic analysis and impact assessments

Our work is based on a hands-on approach providing expertise in financing, marketing, management and business development.



Dr Heiner Lehr, a decade of traceability



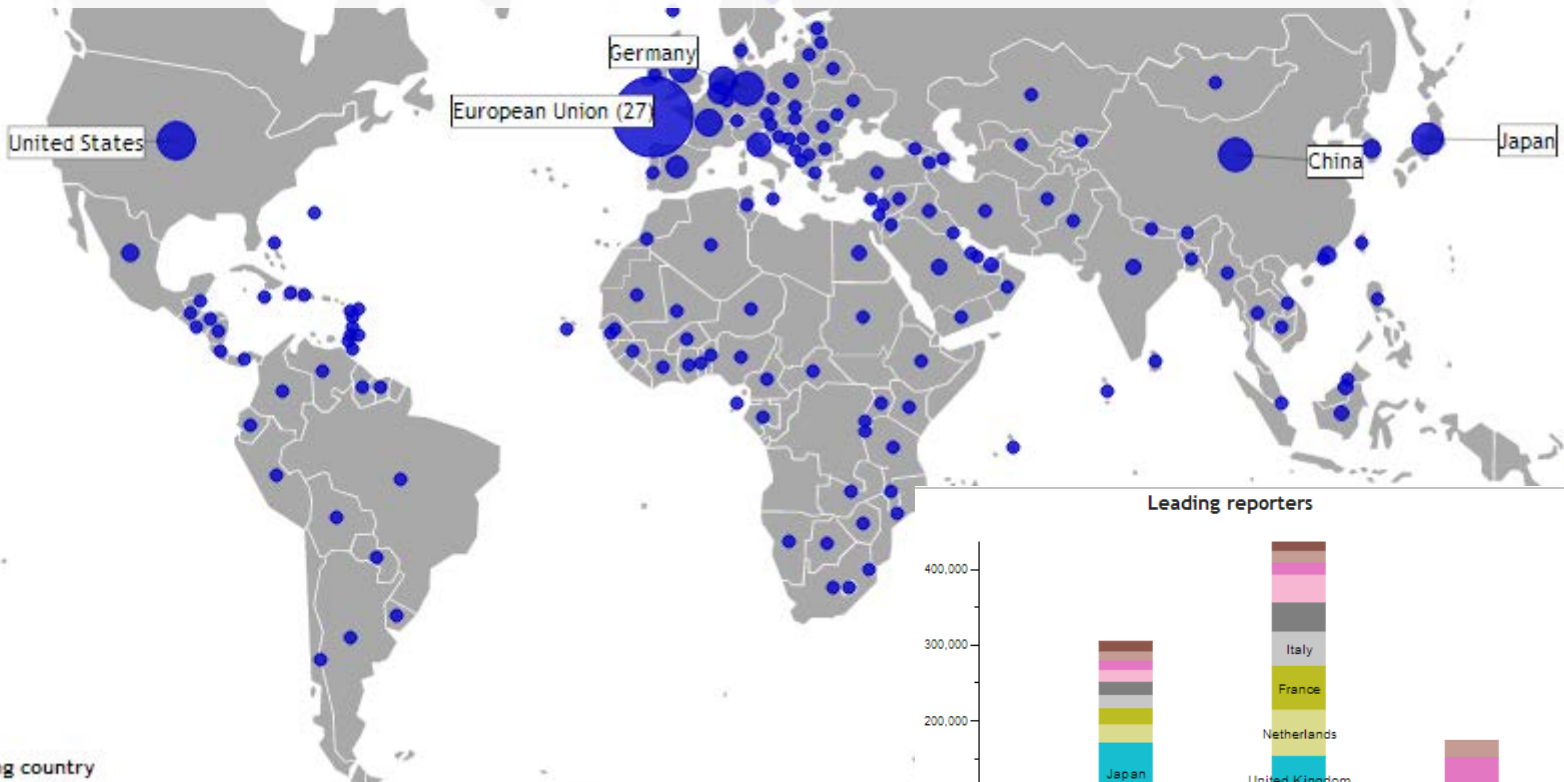
Co-founder of TraceCore XML
Initiator of www.foodtraceability.eu
Enterprise system provider for TRACE,
Europe's largest traceability project.
Technical lead of traceability projects in
SE Asia, Middle East and Europe.
Specialities in using traceability for
sustainability monitoring and standard
compliance.



EcoFishMan
ALL-SMART-PIGS
EU-PLF
Benthis
Macro Biotech
Costal Fishing in
the North Atlantic
WhiteFishMaLL

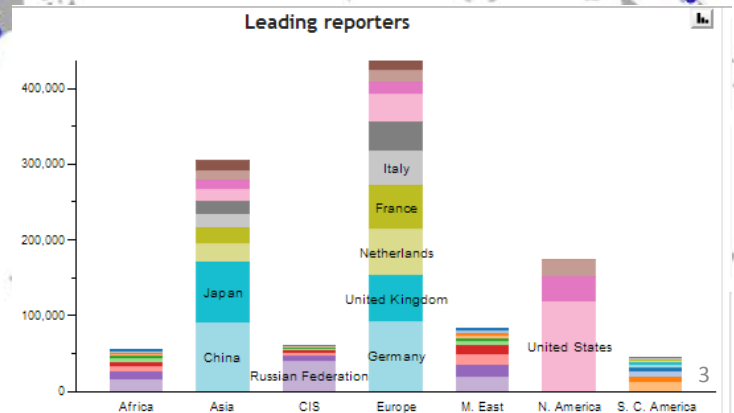
Some simple facts: the origin of food

The global food trade is estimated to be worth about 1.45 trillion USD



Disclaimer

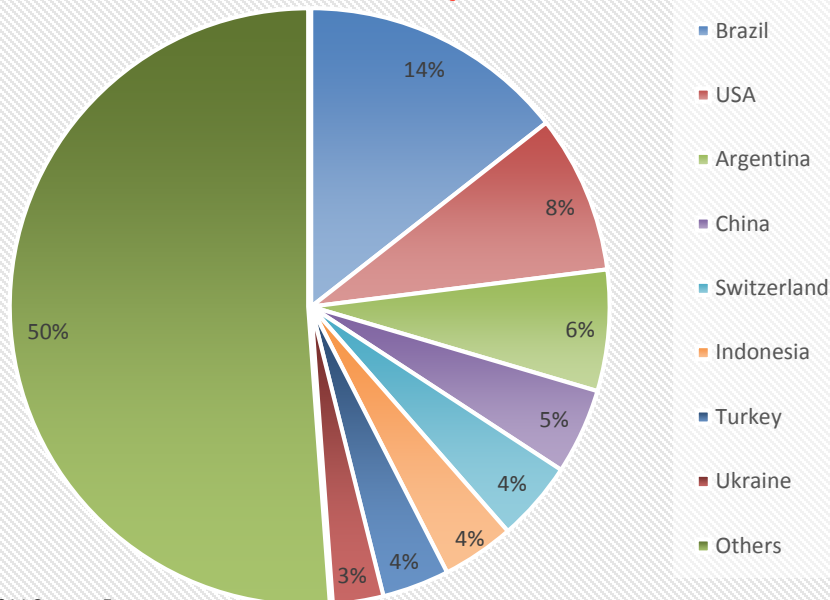
Src: Global Imports of Food, WTO



One example: the European Union

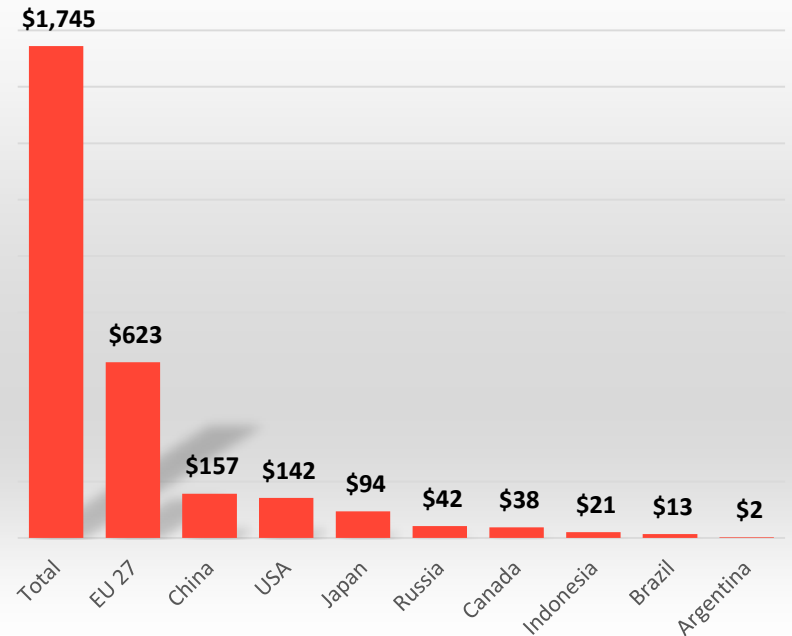
- The world's largest importer and exporter is the European Union
 - 36% of global imports
 - 38% of global exports

Source of EU food imports in %



2011 Source: Eurostat

Global food imports in billion USD

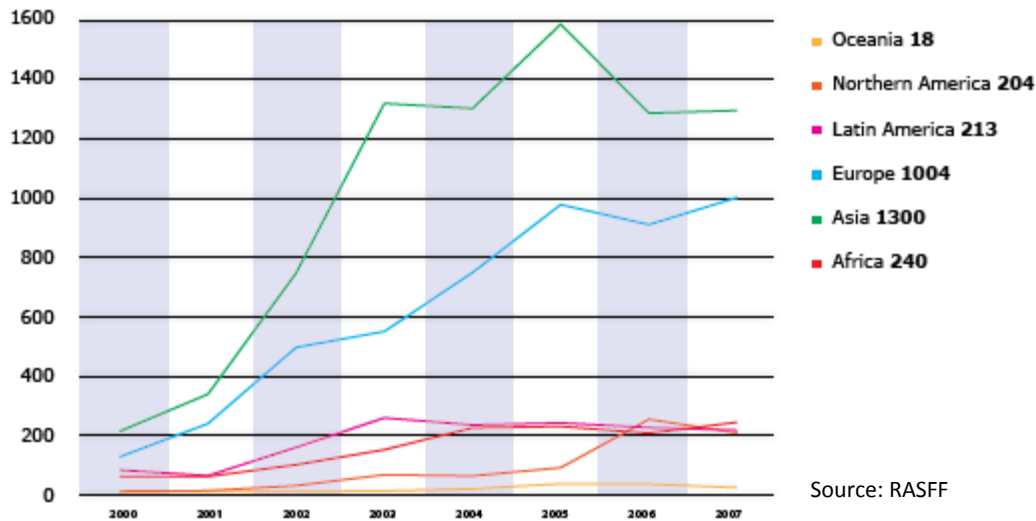


- The source is... the world

The source of incidences

- Food is a sensitive commodity
 - directly related to human health
 - spoils quickly
- As a result, countries monitor food trade closely and reject what is not fit to eat
- The source of reported incidences in Europe is again... the world!

Notifications by world regions 2000 - 2007



Source: RASFF

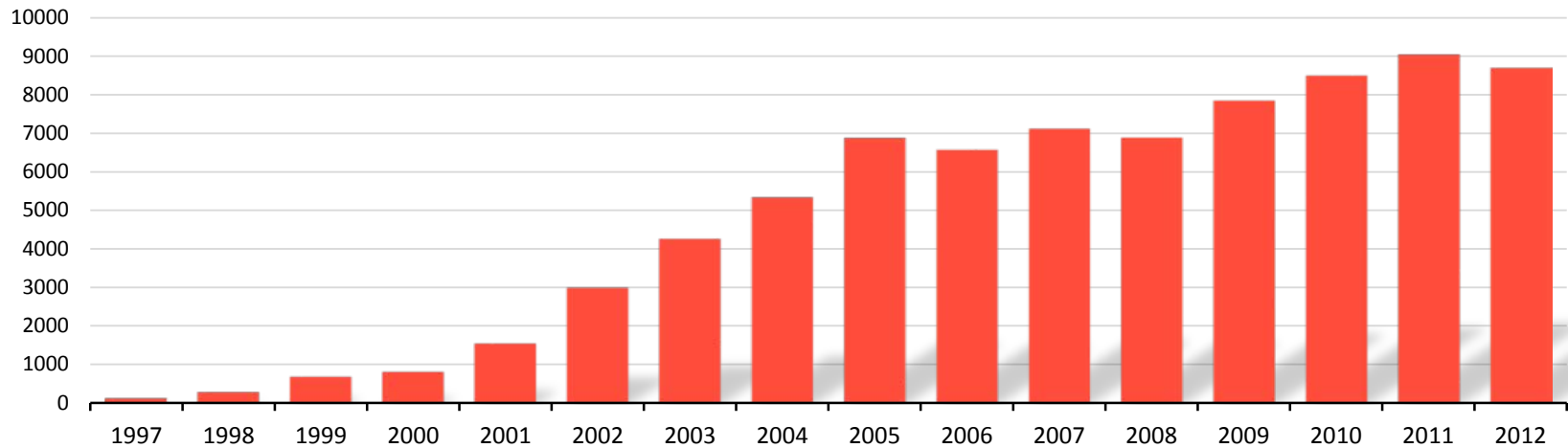
Notifications by country of origin of the product

COUNTRY	Number		COUNTRY	Number		COUNTRY	Number		COUNTRY	Number	
CHINA	352	↑	BANGLADESH	15	↓	GAMBIA	4	↑	GREENLAND	1	↑
TURKEY	293	↑	SENEGAL	15	↑	F.Y.R.O.F MACEDONIA	4	↓	GUINEA	1	=
THE UNITED STATES	191	↓	RUSSIAN FEDERATION	15	↓	MEXICO	4	↓	HAITI	1	↓
SPAIN	177	↑	AUSTRALIA	14	↓	SAUDI ARABIA	4	↑	ICELAND	1	↓
IRAN	133	↓	LATVIA	14	↓	SEYCHELLES	4	↓	JORDAN	1	↓
GERMANY	122	↑	THE PHILIPPINES	13	↓	GEORGIA	3	↓	MACAO	1	↓
INDIA	113	↑	CANADA	12	↓	KENYA	3	↓	MONACO	1	↓
FRANCE	109	↑	CYPRUS	12	↑	REPUBLIC OF KOREA	3	↓	SAN MARINO	1	↓
THAILAND	92	↑	IRELAND	11	↓	MALTA	3	↑	YEMEN	1	↓
POLAND	77	↑	PANAMA	11	↑	MAURITIUS	3	↑	ZIMBABWE	1	=
ITALY	75	↓	AUSTRIA	10	↓	REPUBLIC OF MOLDOVA	3	↓			
BRAZIL	58	↓	IVORY COAST	10	↓	MOZAMBIQUE	3	↑			
THE NETHERLANDS	52	↑	NICARAGUA	10	↓	ROMANIA	3	↓			
UNITED KINGDOM	52	↓	PORTUGAL	10	↓	SLOVENIA	3	↓	azerbaijan		
CHINA (HONG KONG)	50	↑	SINGAPORE	10	↑	ALGERIA	2	↑	afghanistan		
NIGERIA	49	↑	SWEDEN	10	↑	BOLIVIA	2	↑	benin		
ARGENTINA	48	↓	SWITZERLAND	10	↑	CAMBODIA	2	↓	camodia		
VIETNAM	45	↓	SYRIA	10	↓	ETHIOPIA	2	=	comoros		
BELGIUM	40	↑	JAPAN	9	↑	FIJI	2	↓	congo		
UKRAINE	40	↑	SOUTH AFRICA	8	↑	GABON	2	↓	el salvador		
EGYPT	35	↑	ECUADOR	7	↓	JAMAICA	2	↓	eritrea		
DENMARK	34	↑	NAMIBIA	7	↑	MALAWI	2	↓	grenada		
GREECE	32	↑	ANGOLA	6	↑	MYANMAR	2	↑	honduras		
CZECH REPUBLIC	31	↑	BULGARIA	6	↓	NEW ZEALAND	2	↓	kosovo (UNSCR1244)		
GHANA	31	↓	COLOMBIA	6	↓	OMAN	2	↓	kuwait		
PAKISTAN	27	↑	COSTA RICA	6	↑	PARAGUAY	2	↓	luxembourg		
INDONESIA	26	↓	LITHUANIA	6	↓	SIERRA LEONE	2	=	madagascar		
SRI LANKA	24	↑	SURINAME	6	↑	SUDAN	2	↓	the maldives		
UNKNOWN ORIGIN	23	↑	URUGUAY	6	↑	USANDA	2	↑	mongolia		
MALAYSIA	22	↑	CROATIA	5	↓	UZBEKISTAN	2	↓	reunion		
MOROCCO	22	↓	ISRAEL	5	↓	ALBANIA	1	=	serbia and montenegro		
PERU	21	↑	KAZAKHSTAN	5	↑	ARMENIA	1	↓	togo		
LEBANON	19	↑	NORWAY	5	↓	BOSNIA AND HERZEGOVINA	1	=	tonga		
CHILE	18	↑	SERBIA	5	↑	CAPE VERDE	1	↓	united arab emirates		
SLOVAKIA	17	↑	TAIWAN	5	=	CUBA	1	=	venezuela		
HUNGARY	16	↑	TANZANIA	5	↑	ESTONIA	1	↓	yemen		
TUNISIA	16	↑	DOMINICAN REPUBLIC	4	=	FINLAND	1	↓	zambia	5	

Has food safety improved over time?

Total RASFF alerts 2004-2010

Source: RASFF



Nagging questions:

- Has the General Food Law improved food safety?
- Has increased traceability resulted in safer food?
- Do consumers feel safe and capable of making well-informed decisions?

If not, why not?

Number of cases and incidence rates of various foodborne and waterborne diseases, 2005 (1) Source: EUROSTAT

	EU-25		Member States	
	Confirmed cases (units)	Incidence rate (per 100 000 inhab.)	Highest incidence rate	Incidence rate (per 100 000 inhab.)
Botulism	147	0.0	LT	0.2
Brucellosis	1 428	0.3	PT	1.4
Campylobacteriosis	197 802	45.0	CZ	296.2
Cholera (2)	34	0.0	BE	0.1
Cryptosporidiosis	7 960	2.8	IE	13.8
Echinococcosis	336	0.1	LT	0.4
Giardiasis	14 637	5.2	EE	24.3
Listeriosis	1 476	0.3	DK	0.9
Salmonellosis	180 303	39.1	CZ	322.2
Shigellosis	7 255	1.8	LT	13.4
Trichinellosis	153	0.0	LV	2.1
Tularaemia	489	0.1	SE	2.7
Variant Creutzfeldt-Jakob disease (vCJD)	14	0.0	SI	0.2
Verocytotoxinogenic Escherichia coli (VTEC)	5 199	1.2	CZ	16.7
Yersiniosis (non-pestis)	9 535	2.3	LT	14.6

Paper-based systems

- Easy to implement
- Time resilient
- Not scalable; limited by capacity of personnel and physical transportation
- Cannot be re-used
- Usually not accessible; filed in physical location
- **Information chains impossible to construct**
- *Library of Congress*

Paperless systems

- Require technical capacity
- Subject to data format compatibility issues
- More scalable; can be (semi)automated
- Easy to copy and exchange; no transportation time
- Easily accessible
- **An information chain can be established**
- *Google*

smarter food

inclusive

70% of food globally is produced by smallholders, most of which are excluded from the global food chain. Information technology is used to integrate smallholders in international supply chains.

safe

Food has to be safe to produce and safe to consume. Safe food uses information technology to improve controls over environmental and social impact of its production as well as its safety to

traceable

Consumers want to make informed choice of the food they buy for religious, environmental or health reasons or simply for preference. Traceable food is food of which information is recorded along its elaboration process. Consumers can access

预览已结束，完整报告链接和二维码如下：

https://www.yunbaogao.cn/report/index/report?reportId=5_5321

