



Nederlandse Voedsel- en
Warenautoriteit
Ministerie van Economische Zaken

Update on CEN TC275/WG5 activities

Martien Spanjer

*Netherlands Food and Consumer
Product Safety Authority*

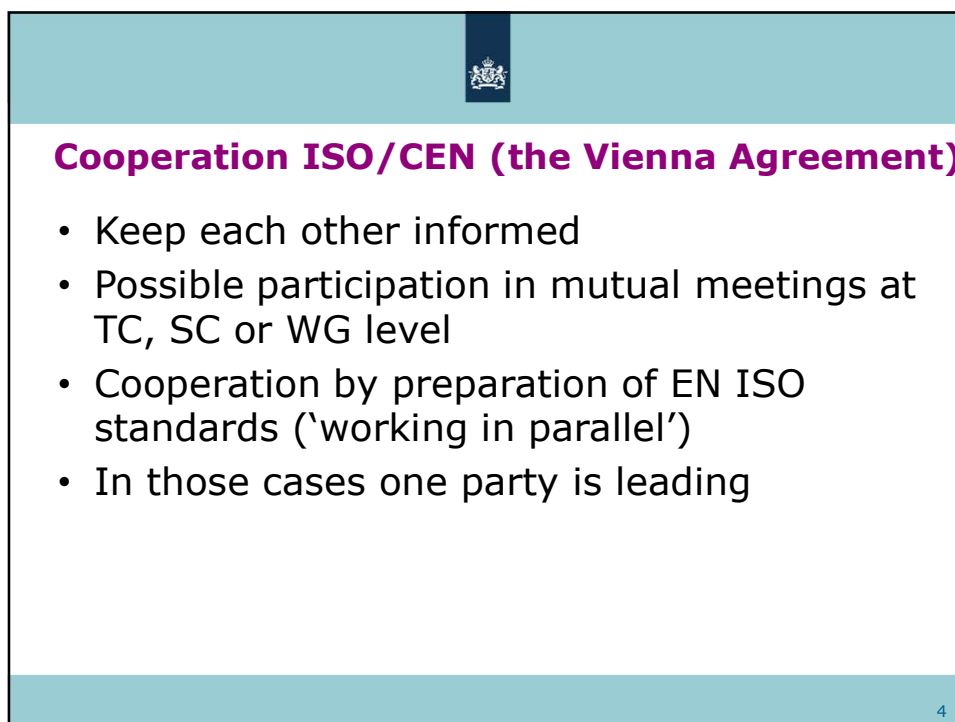
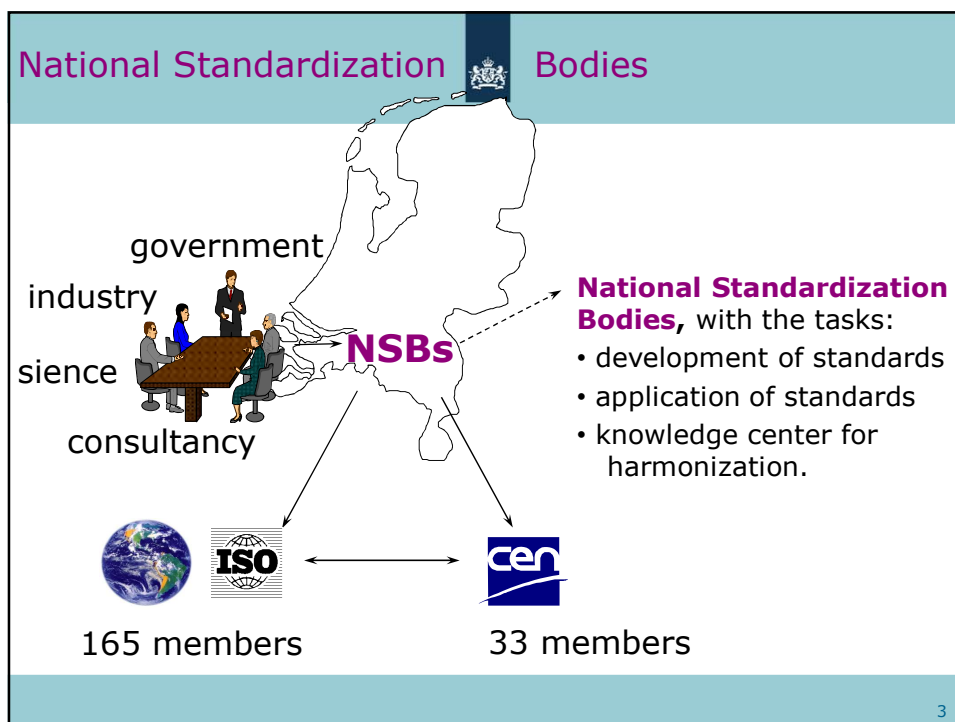
Convenor of CEN TC275/WG5
Mycotoxins and Plant toxins



Why CEN or ISO standards?

- Same level of food safety and health
- Easier trade worldwide
- Fair competition
- Sharing knowledge
- Cost effective

- Equal playing field, worldwide.





Membership and work proces

- ISO and CEN work by country
- **National Standardization Bodies,**
who
- vote on documents
- select delegates for meetings
- communicate with national mirror group

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Report after meeting to NSB and mirror group

Meeting report containing:

- Discussed topics
- Decisions, as formulated in recommendations
- Positions taken as delegation or expert
- National actions to be taken to proceed

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Development of the standard

Step	CEN	ISO
Proposal	NWI-proposal	NWI-proposal
Preparation	Working draft	Working draft
Working group	Circulation WD	Committee draft
Evaluation	CEN-enquiry (prEN)	DIS
Approval	Formal Vote (FprEN)	FDIS
Publication	NSB-EN	(NSB)-ISO

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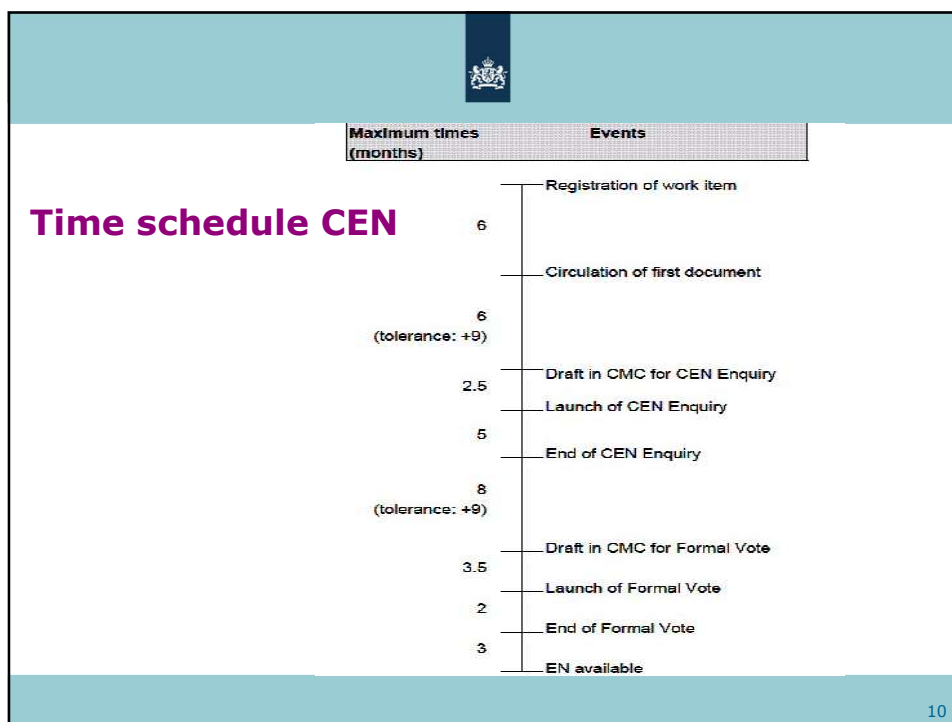
Specific European and EN-rules

- National implementation obligatory
- EN standards are edited into member states format: NEN-EN, DIN EN, BS EN etc.
- Standards remain unchanged.
- Only preface can be specified.



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Weighed vote by		members	
1. Germany	29	17. Sweden	10
2. France	29	18. Switzerland	10
3. Italy	29	19. Denmark	7
4. Turkey	29	20. Finland	7
5. United Kingdom	29	21. Ireland	7
6. Poland	27	22. Croatia	7
7. Spain	27	23. Latvia	7
8. Roemenia	14	24. Norway	7
9. Netherlands	13	25. Slovakia	7
10. Belgium	12	26. Cyprus	4
11. Tsjech republic	12	27. Estland	4
12. Greece	12	28. Letland	4
13. Hungary	12	29. Luxemburg	4
14. Portugal	12	30. Slovenië	4
15. Bulgaria	10	31. Iceland	3
16. Austria	10	32. Malta	3
		33. Former Yug. Rep. Macedonia	9



M/383 EN standards



- EN 15890 Foodstuffs - Determination of **patulin** in fruit juice and fruit based puree for young children – HPLC method with liquid/liquid partition clean up and solid phase extraction and UV detection
- EN 15891 Foodstuffs - Determination of **deoxynivalenol** in cereals, cereal products and cereal based foods for infants and young children - HPLC method with immunoaffinity column cleanup and UV detection
- EN 15850 Foodstuffs - Determination of **zearalenone** in maize based baby food, barley flour, maize flour, polenta, wheat flour and cereal based foods for infants and young children - HPLC method with immunoaffinity column cleanup and fluorescence detection
- EN 15851 Foodstuffs - Determination of **afatoxin B1** in cereal based foods for infants and young children - HPLC method with immunoaffinity column cleanup and fluorescence detection

M/383 EN standards



- EN 15835 Foodstuffs - Determination of **ochratoxin A** in cereal based foods for infants and young children - HPLC method with immunoaffinity column cleanup and fluorescence detection
- EN 15829 Foodstuffs - Determination of **ochratoxin A** in currants, raisins, sultanas, mixed dried fruit and dried figs - HPLC method with immunoaffinity column cleanup and fluorescence detection
- CEN/TS 16187:2011 Foodstuffs — Determination of **fumonisin B1** and fumonisin B2 in processed maize containing foods for infants and young children — HPLC method with immunoaffinity column cleanup and fluorescence detection after precolumn derivatization
- this TS was upgraded into a standard and published as such June 2015
Project leader: **Michele Solfrizzo**, CNR-ISPAA.
- FprCEN/TR 16059:2010 Food analysis — **Performance criteria** for single laboratory validated methods of analysis for the determination of mycotoxins



The second Mycotoxins Mandate

M/520 is the **sixth** mandate issued by the European Commission in the framework of Regulation (EC) N° 882/2004 on official controls performed by national authorities through the food chain to ensure compliance with the EU legislation and a **second** mandate on Methods of Analysis for Mycotoxins in Food, after **M/383** was completed.

M/520 items



1. Determination of **ergot alkaloids** (ergometrine, ergotamine, ergosine, ergocristine, ergocryptine, ergocornine and their epimers) in cereals and cereal products.

CEN/TC
275

prEN 17425 (WI=00275289)

Foodstuffs - Determination of ergot alkaloids in cereals and cereal products by dSPE clean-up and LC-MS/MS

Under
Approval

M/520 items finished

2. Determination of **T-2 and HT-2** toxin in cereal based foods for infants and young children by LC-MS/MS.

[EN 16923:2017](#) (WI=00275288)

CEN/TC 275 Foodstuffs - Determination of T-2 toxin and HT-2 toxin in cereals and cereal products for infants and young children by LC-MS/MS after SPE cleanup Published

3. Determination of **zearalenone in vegetable oils** including refined maize oil.

[EN 16924:2017](#) (WI=00275290)

CEN/TC 275 Foodstuffs - Determination of zearalenone in edible vegetable oils by LC-FLD or LC-MS/MS Published

M/520 items

4. Multimethod for determination of zearalenone and **trichothecenes** at least including deoxynivalenol (DON) and its acetylated derivatives (3-acetyl-DON and 15-acetyl-DON), nivalenol and T2 and HT-2 in cereals and cereal products by LC-MS/MS.

[FprEN 17280](#) (WI=00275291)

CEN/TC 275 Foodstuffs - Determination of zearalenone and trichothecenes including deoxynivalenol (DON) and its acetylated derivatives (3-acetyl- DON and 15-acetyl-DON), nivalenol (NIV) and T-2 and HT-2 toxin in cereals and cereal products by LC-MS/MS Under Approval

Project leader: **Veronica Lattanzio**, CNR-ISPA.

M/520 items



5. Multimethod for the **screening** of ochratoxin A, aflatoxin B1, deoxynivalenol, zearalenone and fumonisin B1 and B2 in foodstuffs, excluding foods for infants and young children, **by LC-MS/MS.**

CEN/TC 275	<p>FprEN 17279 (WI=00275287)</p> <p>Foodstuffs - Multimethod for the screening of aflatoxin B1, deoxynivalenol, fumonisin B1 and B2, ochratoxin A, T-2 toxin, HT-2 toxin and zearalenone in foodstuffs, excluding foods for infants and young children, by LC-MS/MS</p>	Under Approval
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M/520 items



6. Determination of **aflatoxins in spices** (for which an EU maximum level has been established) other than paprika.

CEN/TC 275	<p>prEN 17424 (WI=00275281)</p> <p>Foodstuffs - Determination of aflatoxins in spices other than paprika by IAC clean-up and HPLC-FLD with post-column derivatization</p>	Under Approval
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M/520 items



7. Determination of **ochratoxin A in cocoa** and cocoa products, **spices** (for which an EU maximum level has been established) **and liquorice.**

prEN 17250 (WI=00275282)
 CEN/TC 275 Foodstuffs - Determination of ochratoxin A in paprika, chilli, black & white pepper, nutmeg, spice mix, liquorice, cocoa and cocoa products by immunoaffinity column clean-up and high performance liquid chromatography with fluorescence detection Under Approval

Carlo Brera, Francesca Debegnach, Barbara de Santis et al., Ochratoxin A in cocoa and chocolate products from the Italian market: Occurrence and exposure assessment. Food Control. 2011;22:1663-1667.

M/520 items



8. Determination of **ochratoxin A in meat**, meat products and edible offal.

FprEN 17251 (WI=00275283)
 CEN/TC 275 Foodstuffs - Determination of ochratoxin A in pork meat and derived products by high performance liquid chromatography with fluorescence detection (HPLC-FLD) Under Approval

Project leader: **Barbara de Santis**, ISS.

M/520 items



9. Determination of **Alternaria toxins** (at least including alternariol, alternariol monomethyl ether, tenuazonic acid, tentoxin and altenuene) by LC-MS/MS.

CEN/TC
275**prEN** (WI=00275285)

Foodstuffs - Determination of Alternaria toxins in tomato, wheat and sunflower seeds by liquid chromatography tandem mass spectrometry

Under
Drafting

M/520 items



10. Determination of **phomopsin A in lupins** and lupin derived products by HPLC-MS/MS

CEN/TC
275**FprEN 17252** (WI=00275284)

Foodstuffs - Determination of phomopsin A in lupin seeds and lupin derived products by LC-MS/MS

Under
Approval

11. Determination of **citrinin in food** by LC-MS/MS

CEN/TC
275**EN 17203:2018** (WI=00275286)

Foodstuffs - Determination of citrinin in food by liquid chromatography tandem mass spectrometry (LC-MS/MS)

Published

Next steps for CEN ↔ EURL?

• Possible topics for new mandate:

- Atropine and scopolamine:
Commission Regulation (EU) 2016/239
- Hydrocyanic acid:
Commission Regulation (EU) 2017/1237
- Erucic acid: Commission Regulation (EU) No 696/2014
- THC in milk: Recommendation (EU) 2016/2115
- Opium alkaloids: Recommendation 2014/662/EU
- Plant toxins:
 - Pyrrrolizidine alkaloids EFSA 2017, draft limits
 - Quinolizidine-alkaloids EFSA 2019 draft opinion
 - Glycoalkaloids WG glycolalkaloids in feed and food

Further reading

Europe: www.cen.eu

Worldwide: www.iso.org

Italy: www.uni.com

CEN National Standardization Body (NSB)



Ente Nazionale Italiano di Unificazione
Via Sannio, 2
I - 20137 Milano MI
Italy

