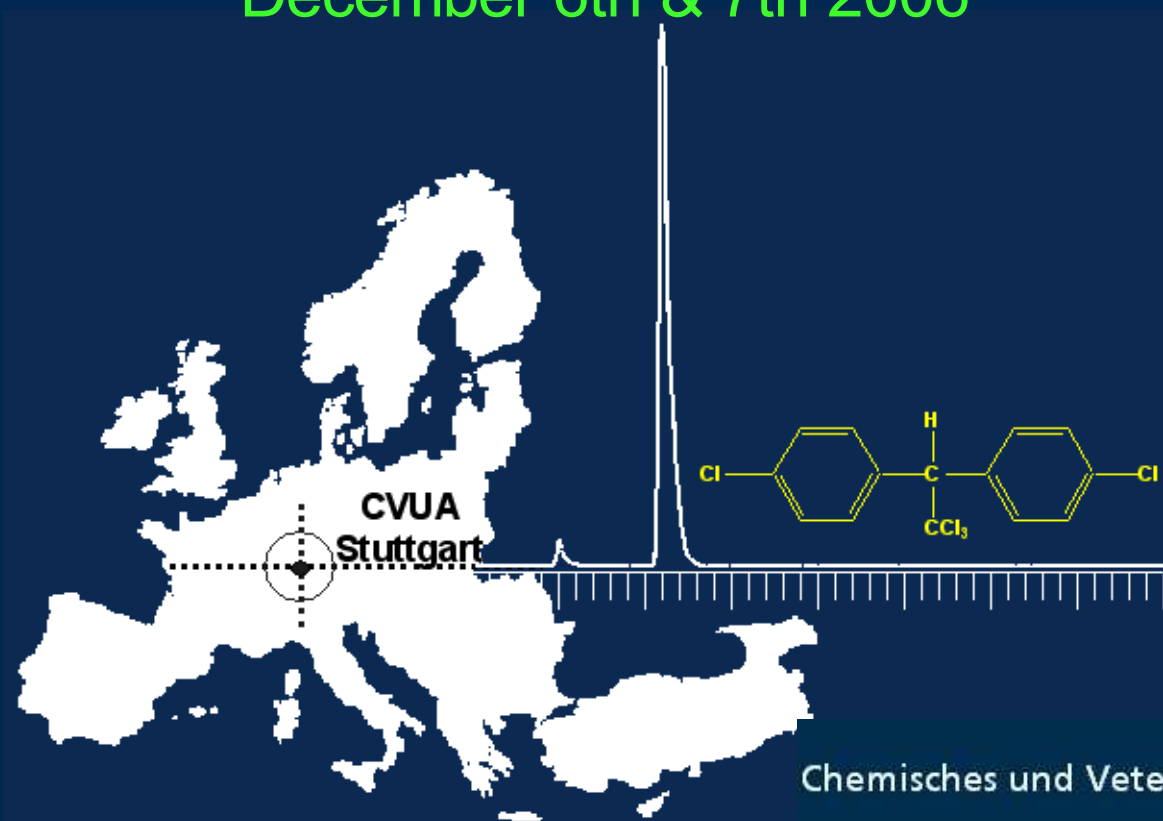


CRLs for Pesticides

1st Joint Training Workshop
in Stuttgart/Germany

December 6th & 7th 2006



Michelangelo
Anastassiades

Chemisches und Veterinäruntersuchungsamt | Stuttgart



CRL-SRM

SCFAH Meeting /12 February 2007

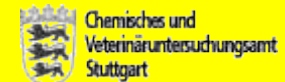
Community Reference Laboratory
for Pesticide Residues
using Single Residue Methods

CRLs for Pesticides

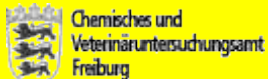
DFVF Copenhagen / Denmark
Cereals and Feeding Stuff

Technical University of Denmark 
National Food Institute 

CVUA Stuttgart / Germany
Single Residue Methods




CVUA Freiburg / Germany
Food of Animal Origin



LAGV Valencia-Almería / Spain
Fruit and Vegetables



Aims of Training-Workshop

- ❖ Inform about the CRL mission and legal framework
- ❖ Initiate the development of a CRL/NRL-Network 
- ❖ Give possibility to meet with each other
- ❖ Inform about CRL past and future activities
- ❖ Seek possible areas of CRL/NRL co-operation
- ❖ Inform about new developments in Pesticide Residue Analysis
- ❖ Give practical training on the QuEChERS-method

Agenda

Day 1

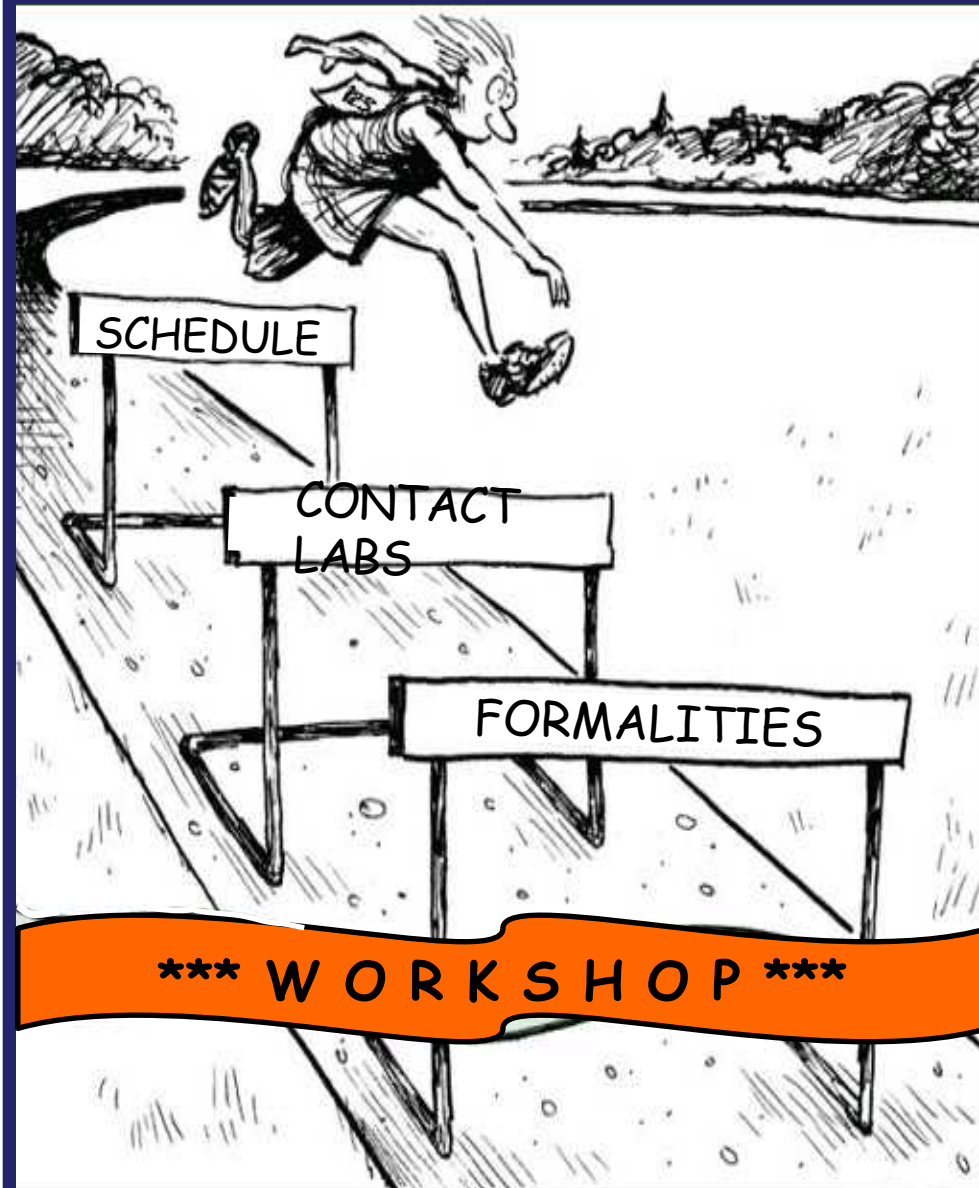
- CRL/NRL-Regulations
- CRL-Work Programs / Networking
- Discussion
- Scientific Lectures

Day 2

- Lecture on QuEChERS-Method
- Hands-on Training on QuEhERS-Method / Venture Presentations (Voluntary)
- Presentation and Discussion of Questionnaire Results

Community Reference Laboratories for Residues of Pesticides			
			
1st CRL/NRL Pesticide Residue Training Workshop 6 th – 7 th December, 2006 - Stuttgart, Germany - Agenda 2 nd Day -			
Thursday, 7th December 2006 Hands-on Training and Overall Discussion			
QuEChERS Hands-on Training	8:45	New Developments in QuEChERS-method	
	9:00	(Splitting of the participants into two groups)	
	9:45	Group A Hands-on Training in Laboratory	Group B Venture Presentations 15 min oral presentations by various companies to inform participants about new technological developments (optional participation)
	11:15	Short Coffee Break 11:15 - 11:30	
	11:30	Group A Venture Presentations 15 min oral presentations by various companies to inform participants about new technological developments (optional participation)	Group B Hands-on Training in Laboratory
Lunch Break 13:00 - 14:30			
Overall Discussion	14:30	- Questions and Problems, Discussion - Results and Discussion on the Lab Questionnaire (Part II)	
	18:00	Closing session (Feedback, Reimbursement formalities, etc.)	
	18:30	Farewell Coffee and End	

Preparations



Many Hurdles to Overcome:



Find a week where all Heads of CRLs and Speakers are available



Contact NRLs



Get used to Formalities (reimbursement...)



Provide On-line Information electronic Registration



Arrange Accommodation



Arrange Restaurants

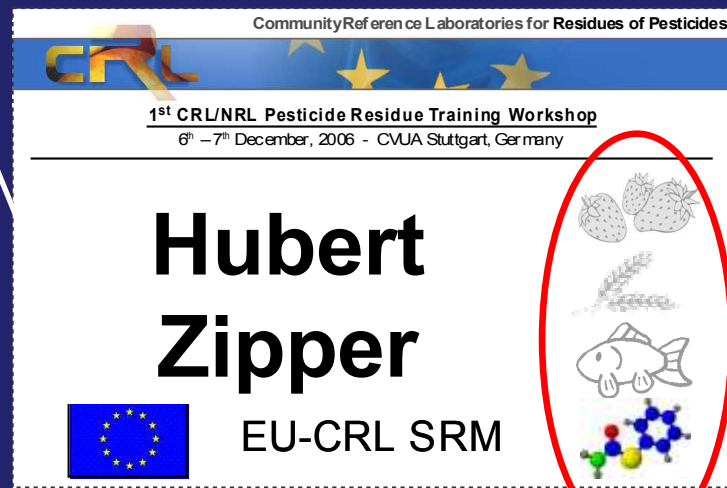


and, and, and....

and, and, and...



Participant's
Badge



Meeting Portfolios
with information

Picture for our
Network-Posters

& Website

Participants

- **Invited:**

Experts from all 25 MS

+ Bulgaria , Romania (Candidate MS)

+ Norway, Iceland, Liechtenstein (participating in EU-Monitoring)

- **Attended:**

Experts from 24 MS (all except Malta)

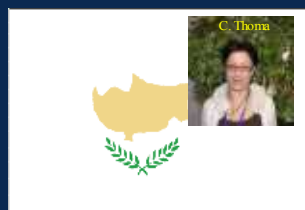
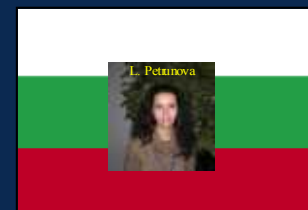
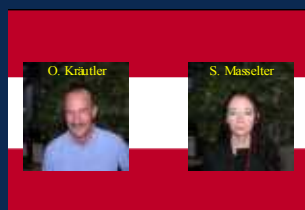
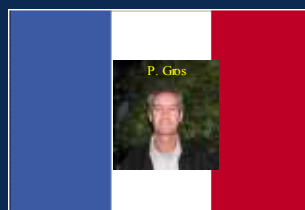
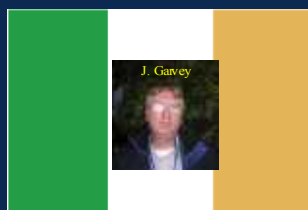
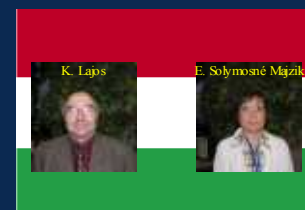
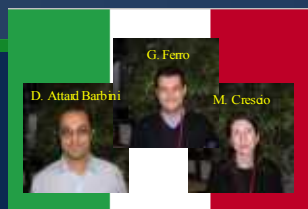
+ Bulgaria

+ Norway

**In Total
45 Participants**



1st CRL/NRL Pesticide Residue Training Workshop Participants



Participants



CRL/NRL Regulation / Work Programs / Networking

1. Overview of CRL-Regulations and Tasks

Ellen Scherbaum

CVUA Stuttgart, CRL-SRM

CRLs - General Tasks



**Improve the quality, accuracy
and comparability of the results at official labs**

- Organisation of Proficiency Tests
- Workshop & Training of laboratories in the MS
- Development and validation of new analytical methods
- Providing scientific and technical assistance to the Commission e.g. coordinated monitoring programme
- Collaborating with third countries labs
- Development/Improvement of the analytical QC guidelines



2. CRL for Fruits and Vegetables – Work Program

Amadeo Fernandez-Alba

ACTIVITIES
A) General Tasks
B) Development and Validation of Analytical Methods
C) Proficiency Tests
D) Technical and Scientific Support to the Commission, EU Members State and Third Countries



3. CRL for Cereals and Feeding Stuff – Work Program

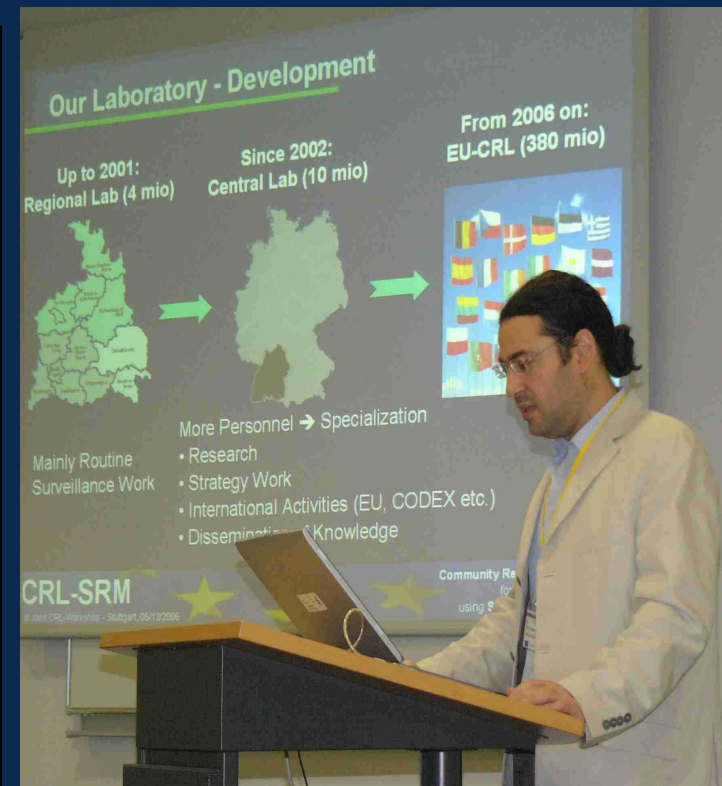
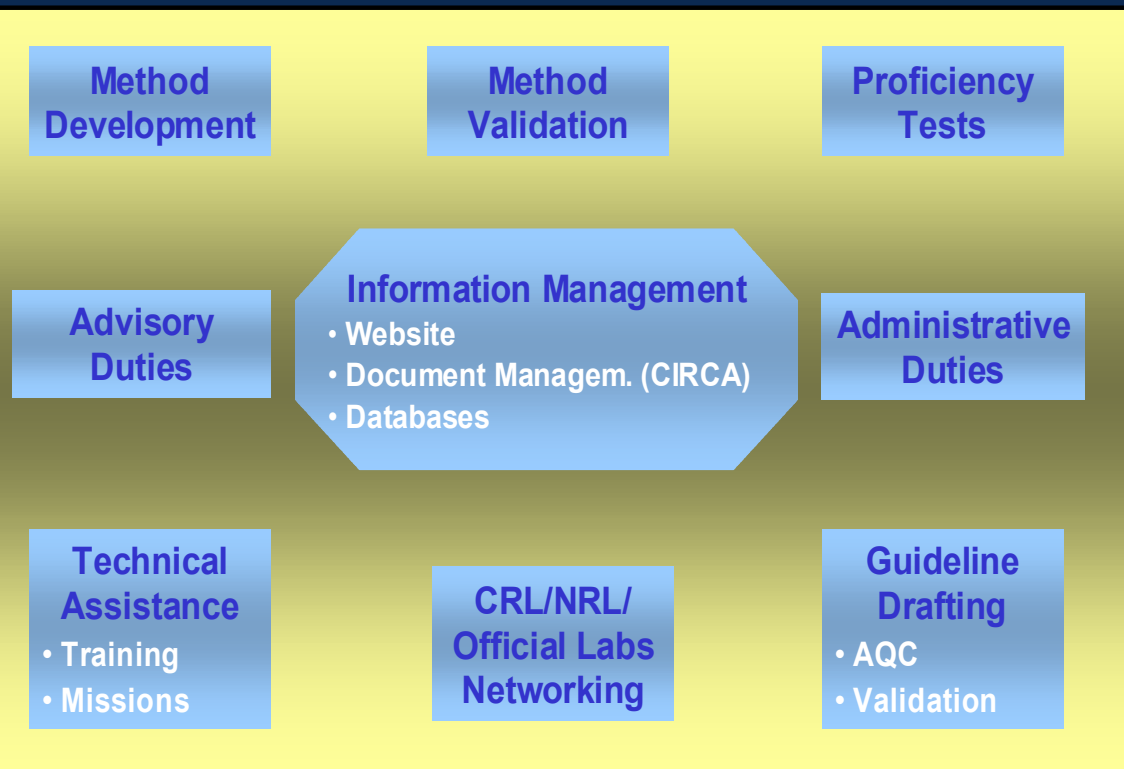
2006 – Workprogramme

- Proficiency tests – preparation for 2007
 - field spraying of wheat
 - online result submission website
- Workshop and training course for NRLs
 - Stuttgart from 6-7 December 2006
- Preparing guidelines
 - No activity
- Scientific assistance to Commission
 - Advise in relation to the Coordinated Monitoring Programme
- Technical assistance to Commission
 - Advise in relation CODEX proposal on estimation of uncertainty



4. CRL for Single Residue Methods – Work Program

Michelangelo Anastassiades



Scientific Lectures in Day 1

- ❖ **“ Application of LC-ToF/MS in Pesticide Multi-Residue Analysis ”**
Amadeo Fernandez-Alba (ES)
- ❖ **“ ToF/MS: A Recent Challenge in GC Residue Analysis and a Strategie for Obtaining Accurate Data ”**
Jana Hajslova (CZ)
- ❖ **“ LC- and UPLC-MS/MS Methods for Pesticide Analysis in Food Products”**
Andre deKok (NL)
- ❖ **“ Analysis of Glyphosate in Cereals ”**
Hanne Bjerre Christensen (DK)
- ❖ **“ Pesticides-Online and Method Validation Database – Two Database Modules to Access Pesticide-Related Data via the Internet ”**
Hubert Zipper (DE)

Come together....

- ★ Coffee Breaks
- ★ Lunch Time
- ★ “ Nikolaus Dinner”

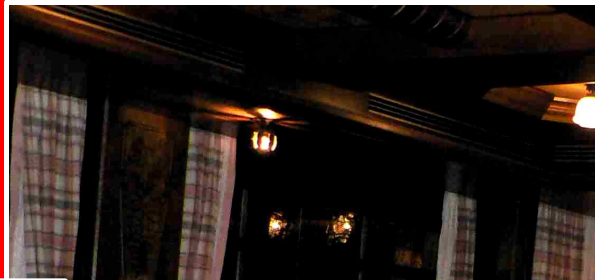


**Time to
Discuss,
Socialize and
make Contacts...**



Come together....

* "Nikolaus Dinner"



Day 2: Hands-on Training & Discussion

Introductory Lecture:

- ❖ “ **New Development in QuEChERS-Multiresidue Method** ”

Michelangelo Anastassiades (DE)

Hands-on Training:

- ❖ “**QuEChERS-Training in the Laboratory**”

Pesticides Team of the CVUA Stuttgart

- ❖ **Venture presentations**

(In parallel and optional)

Limited lab-capacity

⇒ Participants divided
into 2 x 4 groups

Presentation of Survey Results & Discussions:

- ❖ **Presentation of CRL-Survey**

Michelangelo Anastassiades (DE)

- ❖ **General Discussion**

All Heads of CRLs

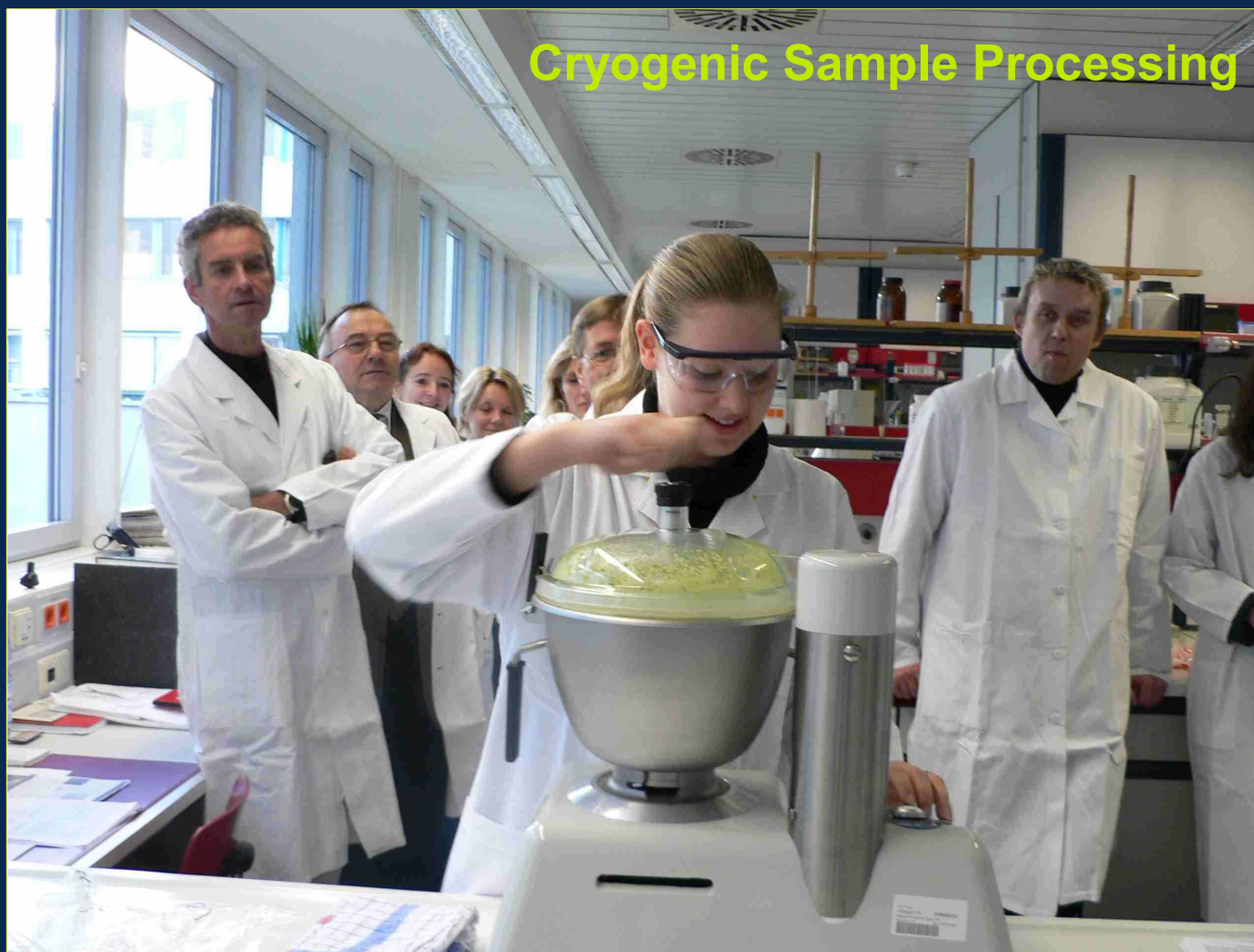
Hands-on Training



Hands-on Training



Hands-on Training



Hands-on Training



Hands-on Training

Pipetting



Hands-on Training



Hands-on Training



At the Centrifuge

Hands-on Training



Hands-on Training



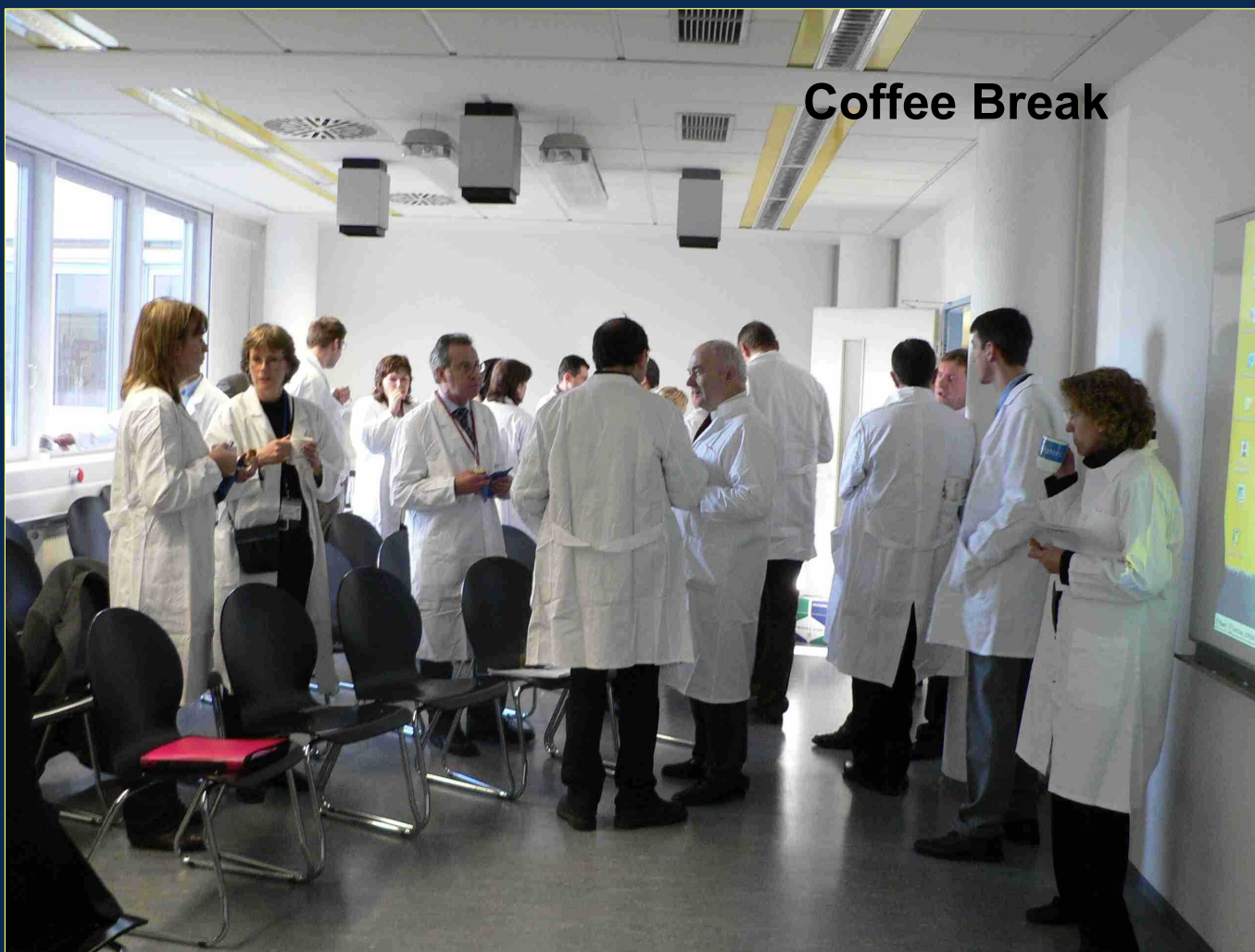
Hands-on Training



Hands-on Training



Hands-on Training



**In view of the
Meeting a
Laboratory Survey
was performed ...**



Survey

Aims:

- Give **Food for Discussions**
- To assess the **Status-Quo** of the labs within the network (abilities and disabilities)
- To assess the **Needs** and requirements of the labs
- To gain the ability to **Plan and Justify the CRL-Activities** based on sound data
- To **Initiate a Thinking Process** (awareness about certain aspects)
- To give the possibility to the labs to **Compare** themselves with other labs
(see where they stand & get ideas what to do)

Survey – The Questionnaire Form

	A	B	C	D	E	F	G	H	I	J
1	Analytes									
2	(will take ca. 5 min to complete)									
3	Back to 'Introduction'									
4	Overview:									
5	N° of pesticides you currently ROUTINELY target in your samples ?								<input type="text"/>	
6	Total N° of pesticides ROUTINELY covered by MS or MS/MS techniques (Full scan, SIM or MRM) ?								<input type="text"/>	
7	N° of pesticides routinely covered by GC-MS (MS) (Full scan, SIM or MRM) ?								<input type="text"/>	
8	N° of pesticides routinely covered by LC-MS (MS) (Full scan, SIM or MRM) ?								<input type="text"/>	
9	Did the number of target-pesticides increased in your lab from 2003 to 2005 ?								<input type="text"/>	
10										
11										
12										
13										
14										
15										
16										
17	Pesticides typically covered by single residue or group-specific methods:									
18	Which of the pesticides below do you cover in your laboratory ?									
19										
20										
21										
22										
23										
24	Type of method employed								% of samples analyzed for these	
25	Acidic pesticides (phenoxy acids and similar)								<input type="text"/>	
26	Chlomequat, mepiquat								<input type="text"/>	
27	Glyphosate								<input type="text"/>	
28	Ethefon								<input type="text"/>	
29	Fosetyl aluminium								<input type="text"/>	
30	Sulfonylureas								<input type="text"/>	
31	Dithiocarbamates as CS ₂ (Photometric)								<input type="text"/>	
32	Dithiocarbamates as CS ₂ (GC)								<input type="text"/>	
33	Dithiocarbamates individual compounds (LC)								<input type="text"/>	
34	ETU								<input type="text"/>	
35										
36										
37										
38										
39										

General Analytes Instrumentation CrlWebsite NetworkActivities QAQC SamplingAnalysis

Survey

- ❖ Survey Forms were send to the labs on November 22
→ to all official pesticide residue labs
- ❖ First deadline December 1st
→ to be included in the evaluation for the meeting

Response was phenomenal!

85 labs replied by December 1st

(~ 95 until today)

Survey

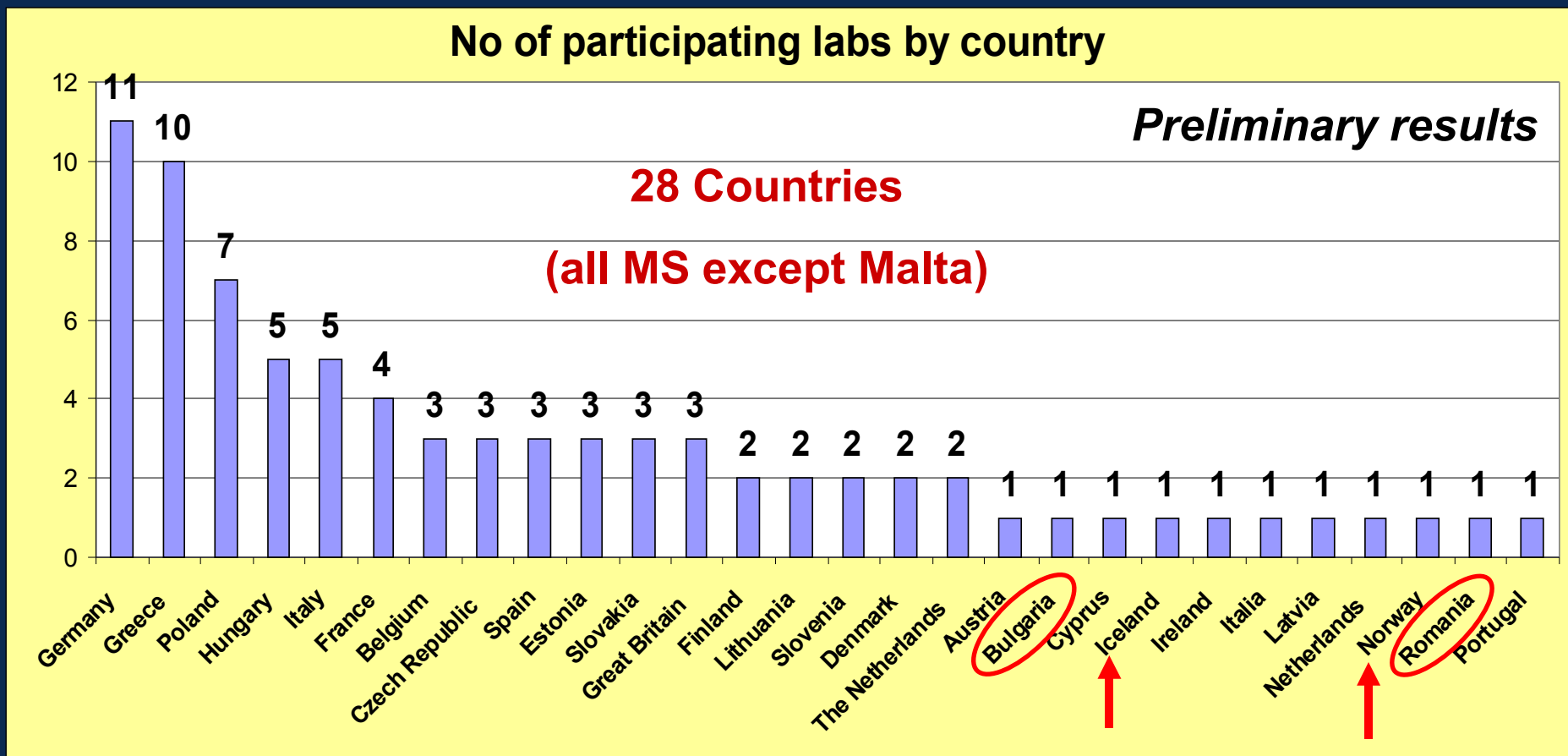
The were 320 questions on 6 Topics

- **General**
- **Analytes**
- **Instrumentation**
- **CRL-website**
- **QA/QC**
- **Sampling and Analysis**
- **Residue Findings and Violation**

**In total
~25,000 data points
to evaluate**

Survey-Evaluation - Some Examples

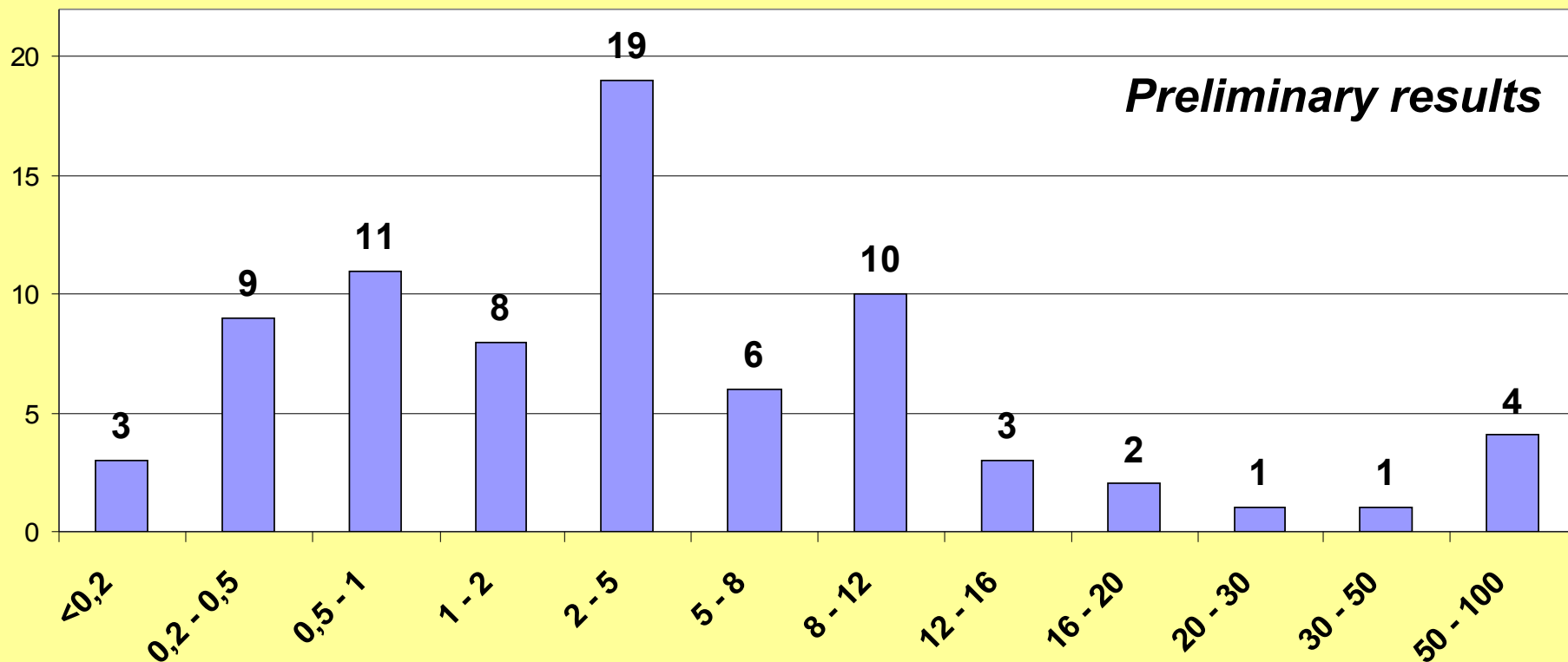
Topic: General



Survey-Evaluation - Some Examples

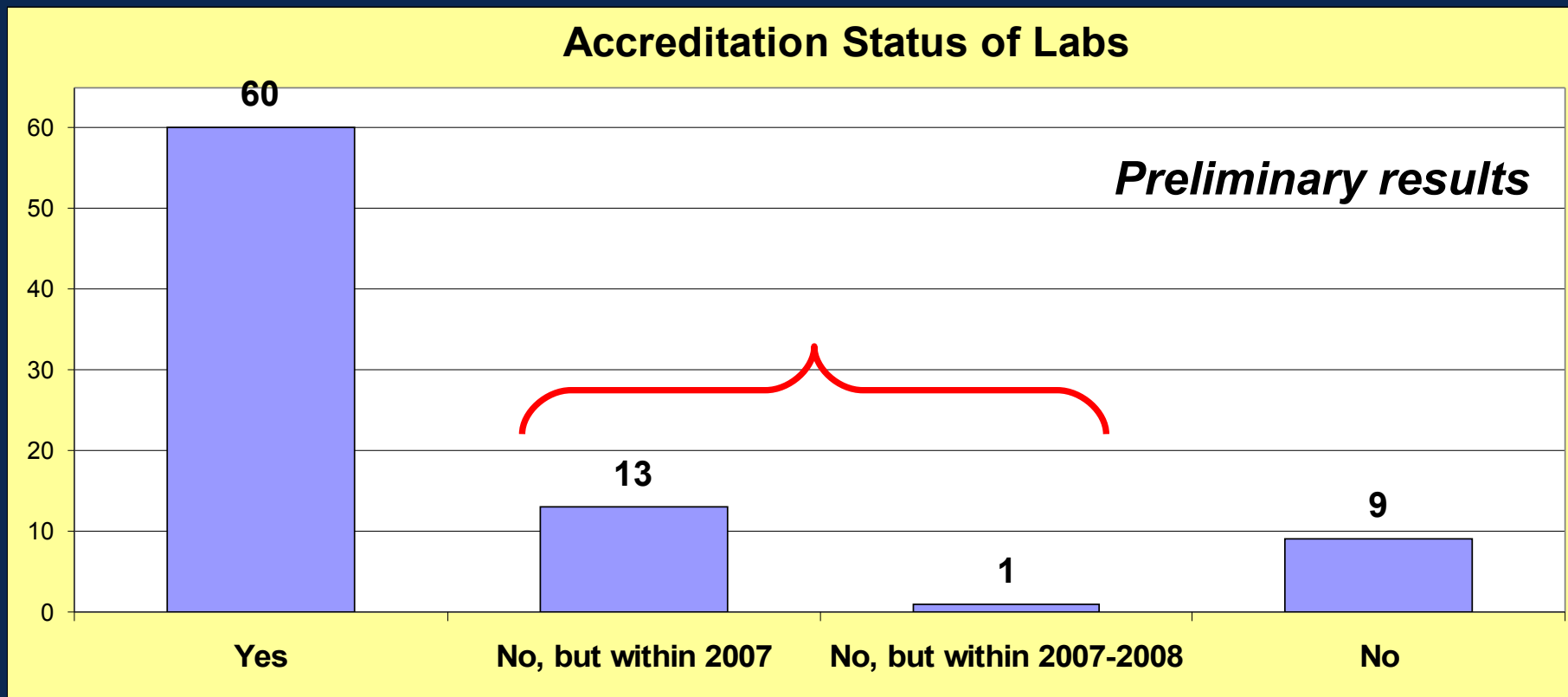
Topic: **General**

Population covered by the lab (in millions)



Survey-Evaluation - Some Examples

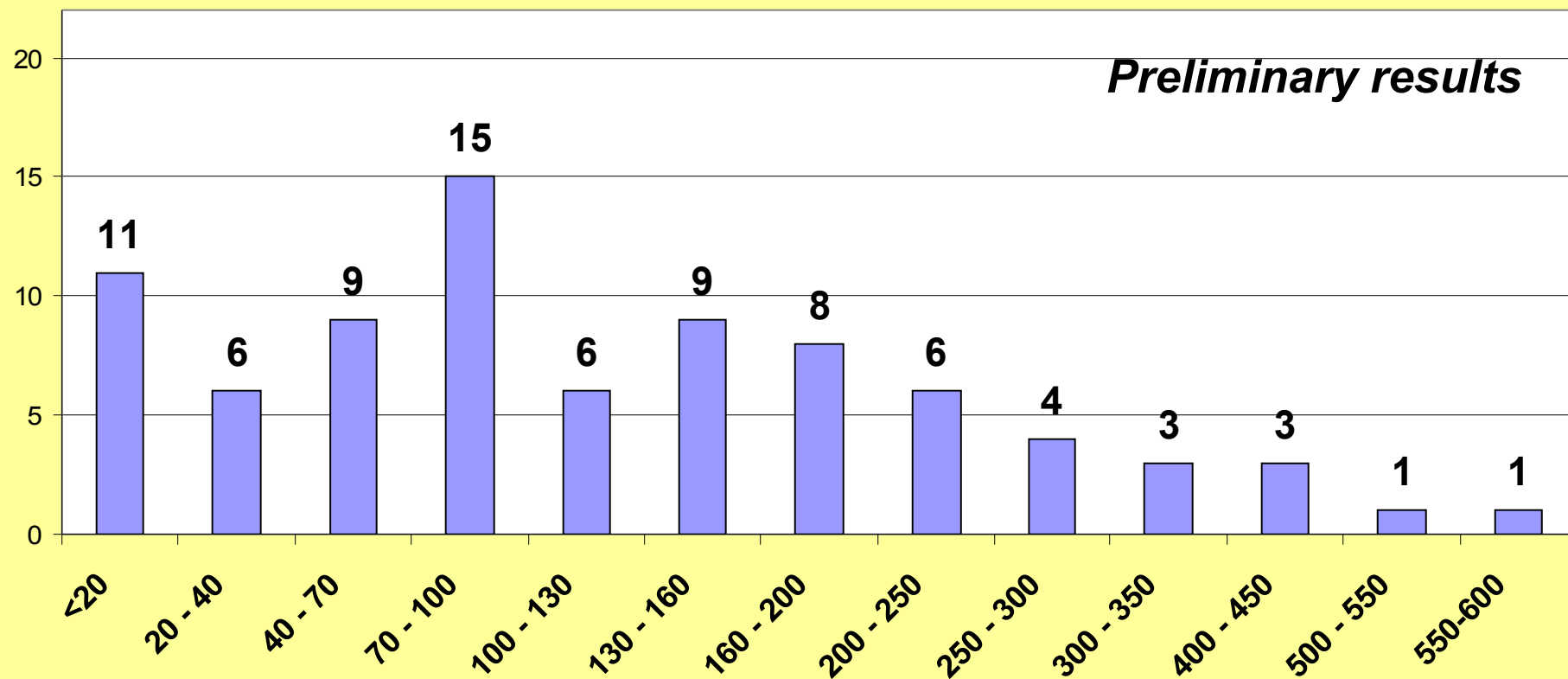
Topic: General



Survey-Evaluation - Some Examples

Topic: **Analytes**

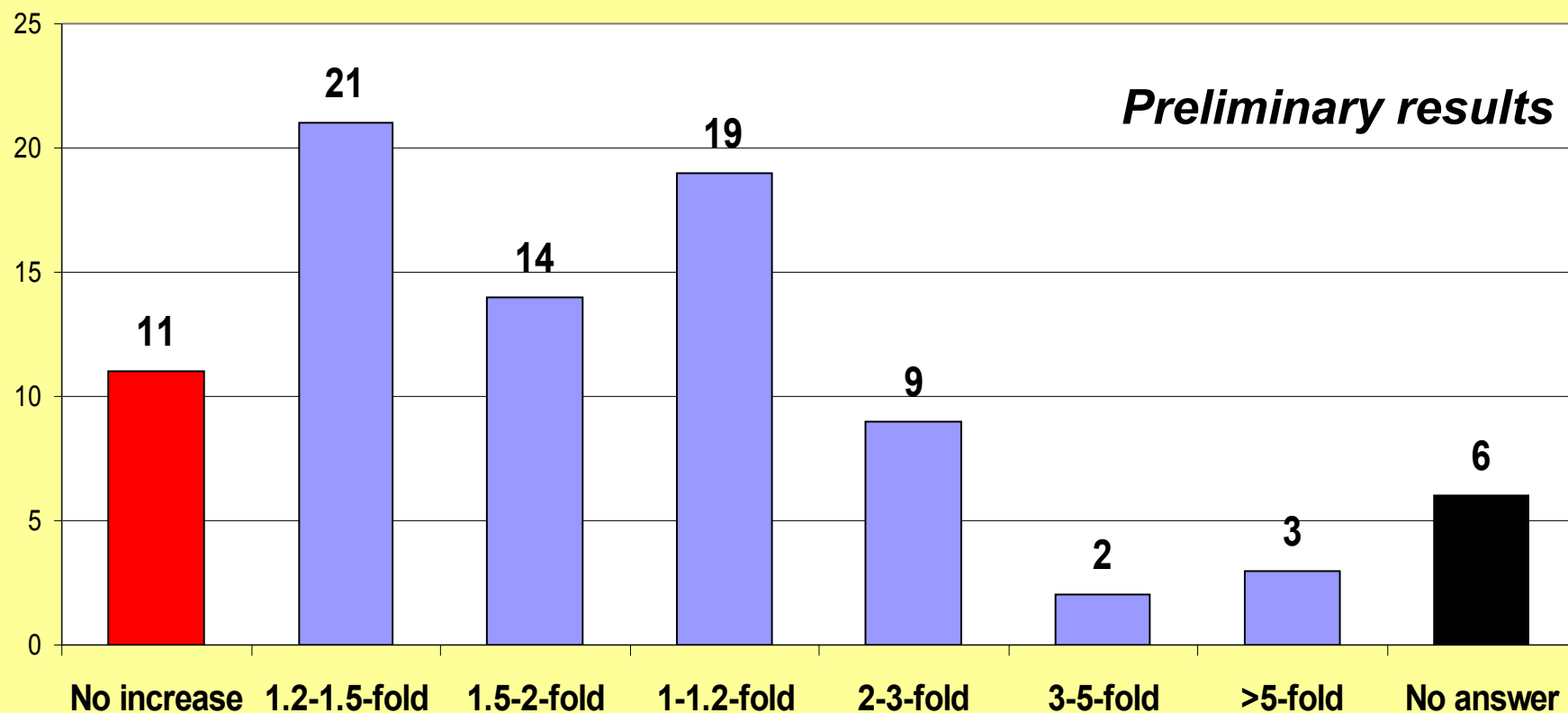
No of Analytes Included in Target Spectrum



Survey-Evaluation - Some Examples

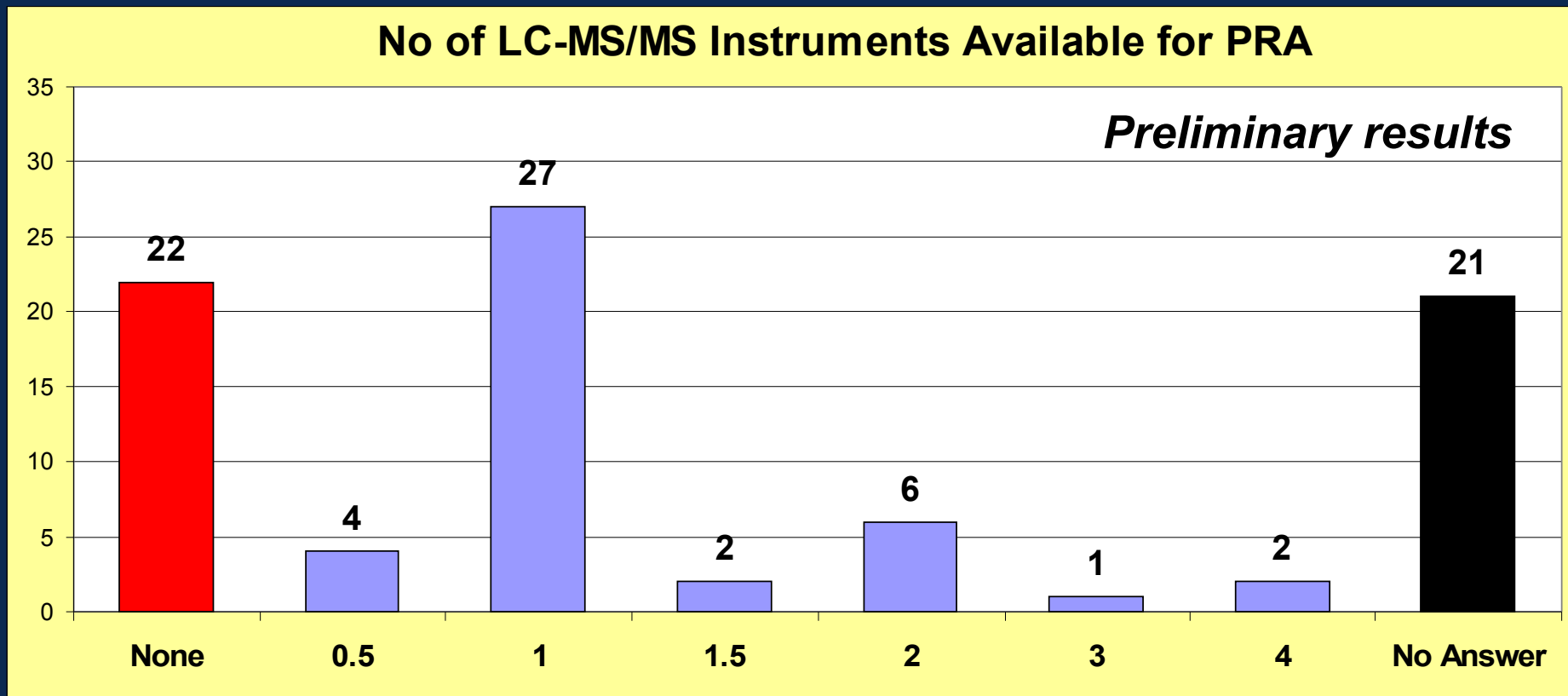
Topic: **Analytes**

Increase in the Scope of Targeted Analytes



Survey-Evaluation - Some Examples

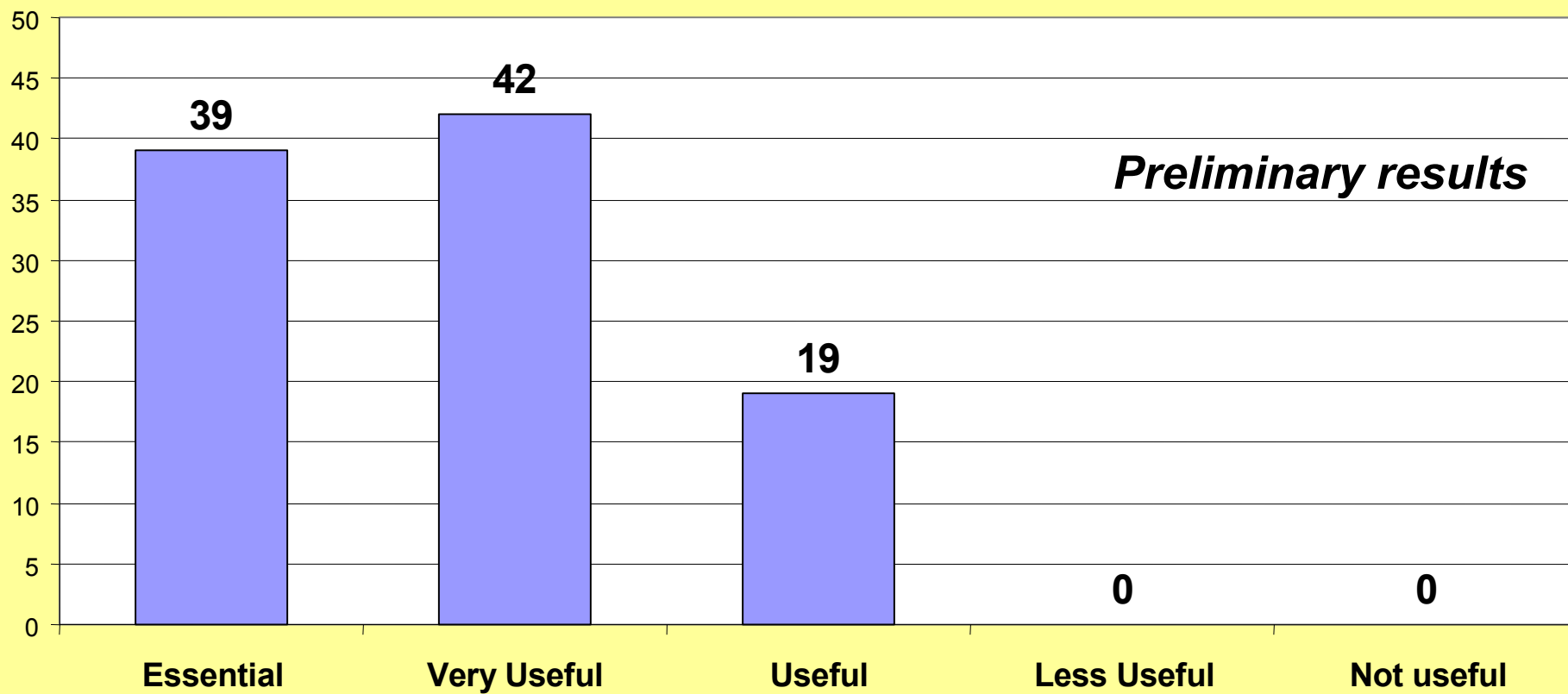
Topic: Instrumentation



Survey-Evaluation - Some Examples

Topic: **CRL-Website**

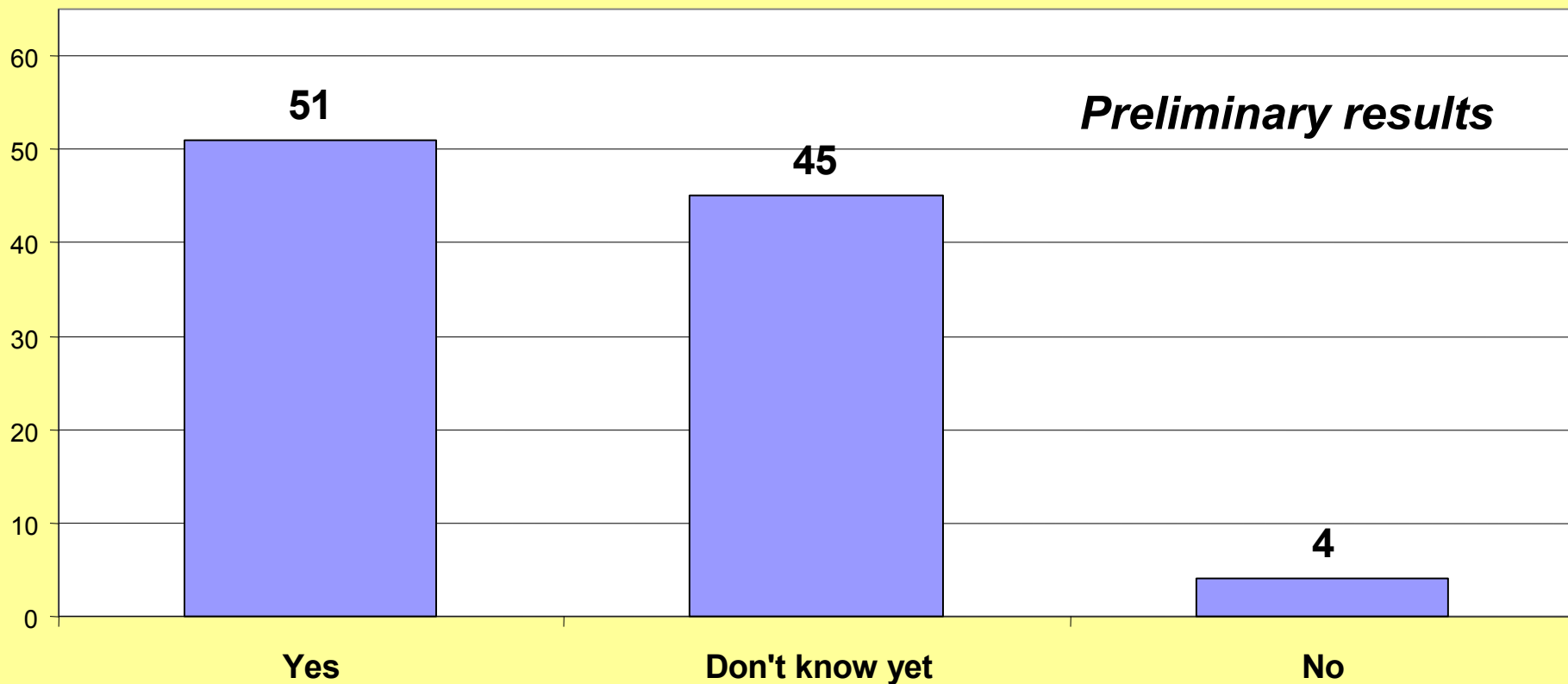
Importance of Data on Chromatographic Behaviour of Pesticides



Survey-Evaluation - Some Examples

Topic: **CRL-Website**

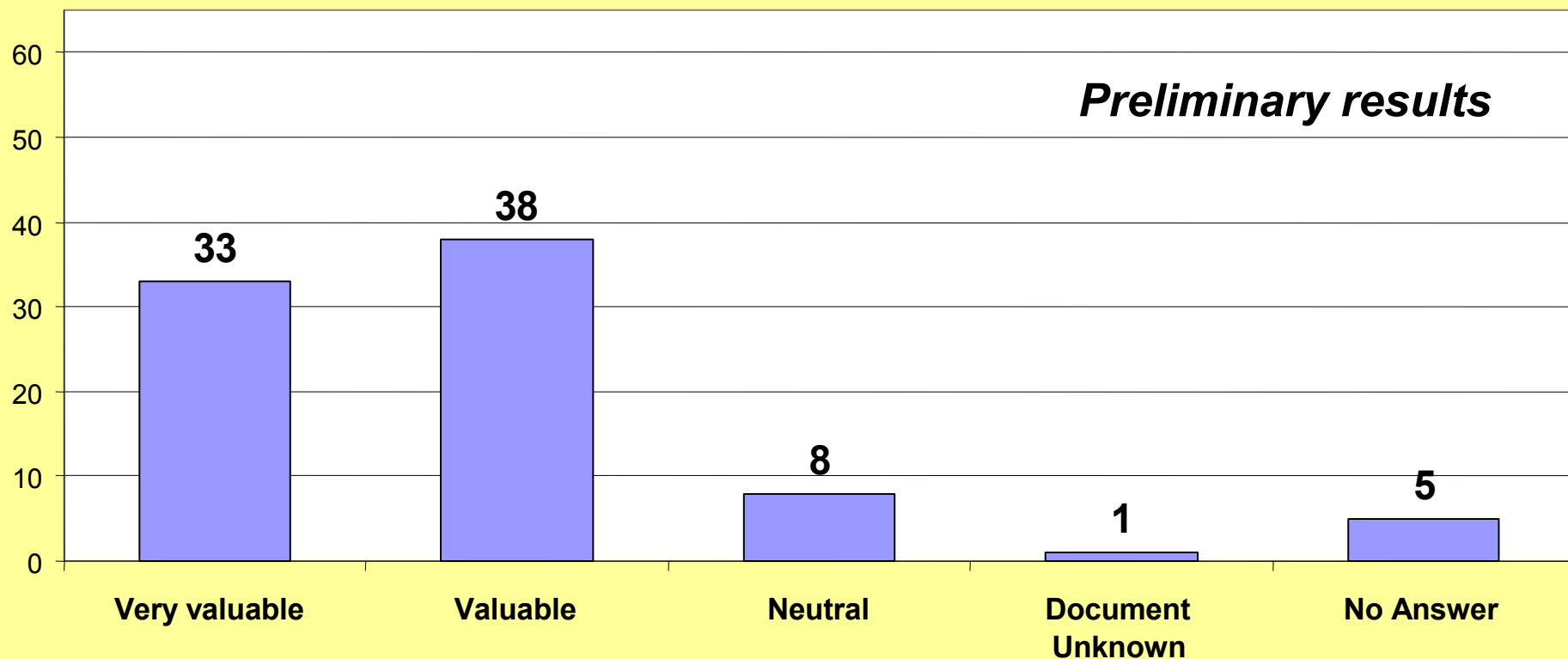
Would you be Willing to Contribute Data to such a Database?



Survey-Evaluation - Some Examples

Topic: QA/QC

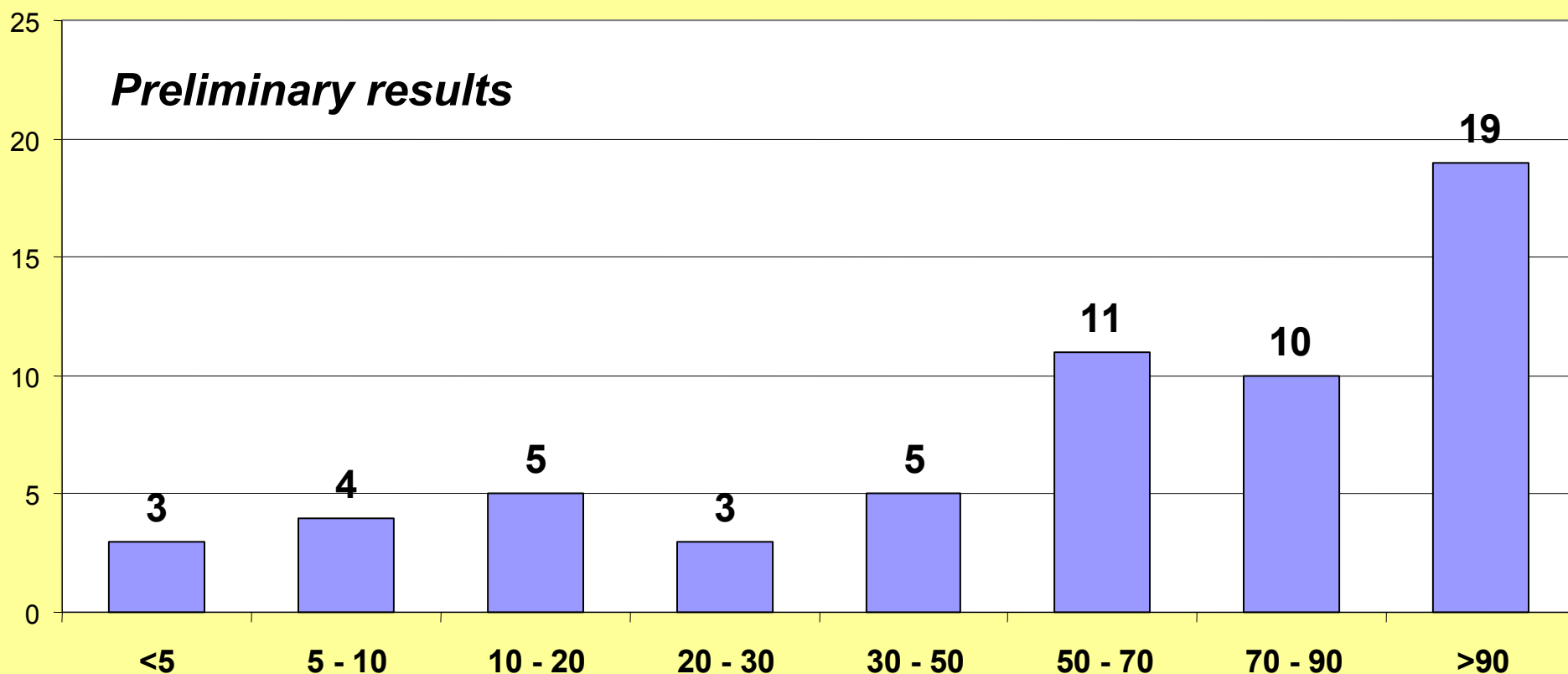
Is the SANCO Document on Quality Control Procedures Valuable to you?



Survey-Evaluation - Some Examples

Topic: **Sampling and Analysis**

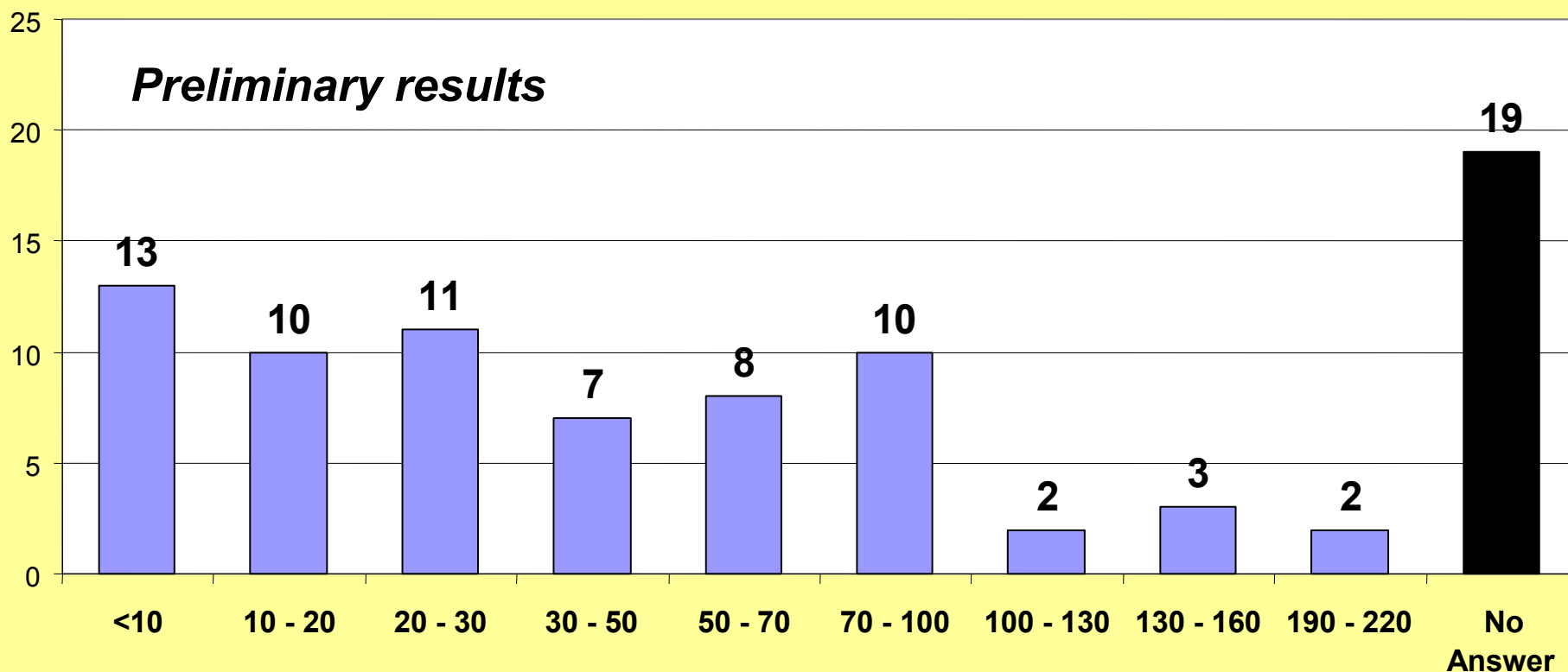
Percentage of EU-Monitoring Samples on Total No. of Samples



Survey-Evaluation - Some Examples

Topic: Residue Findings and Violations

No. of Different Pesticides DETECTED in Samples in 2005



Feedback

30 Feedback forms returned

95 % found the workshop



Feedback	😊	😐	😞	No answer
Were the scope and extent of the CRL / NRL session appropriate?	92 %	5 %		3 %
Did the CRL / NRL session meet your expectations?	88 %	12 %		
Were the scope and extent of the scientific lectures appropriate?	80 %	20 %		
Did the scientific lectures meet your expectations?	73 %	23 %		3 %
Were the scope and extent of the hands-on training (QuEChERS) appropriate?	83 %	17 %		
Did the hands-on training meet your expectations?	83 %	17 %		
Was the provided information sufficient?	70 %	30 %		
Was the overall schedule (agenda) appropriate?	67 %	13 %		20 %
Was the ambience pleasing?	83 %	10 %		7 %
How did you like the hotel?	72 %	28 %		1 person not at hotel
How did you like the "Nikolaus" - Dinner?	96 %	4 %		4 persons not attended
Was the lunch at the Chinese restaurant pleasing?	45 %	38 %	17 %	1 person not attended
Was the lunch at the German restaurant (Rose-neck) pleasing?	63 %	30 %	7 %	3 persons not attended
The organisation of the workshop was... <i>professional, excellent</i>	100 %			
Altogether, the workshop was... <i>very good</i>	95 %	2 %		3%

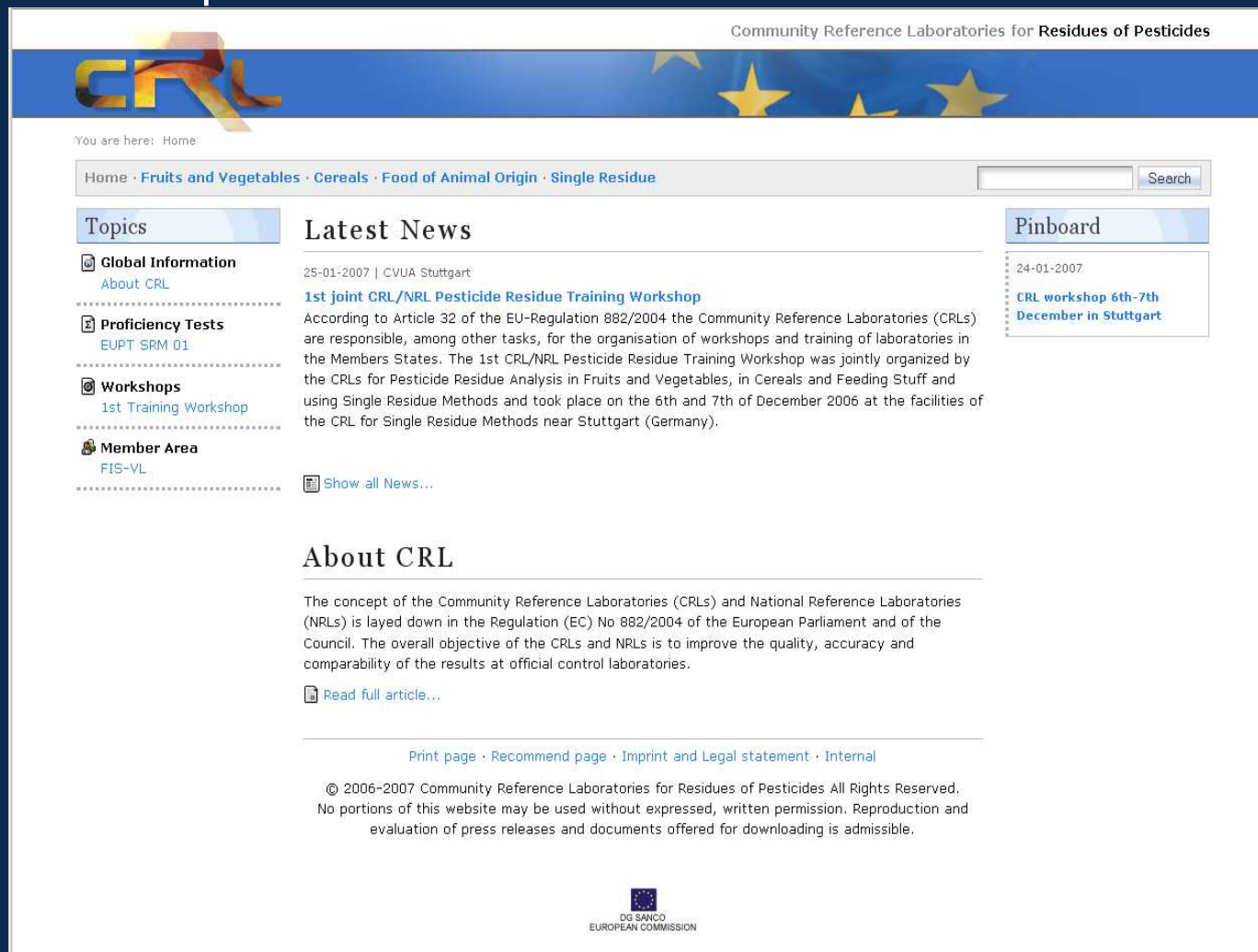
Individual Comments...



30 Feedback
forms were
returned

- The staff ... made me **feel very welcome** and everybody was very **kind and helping**.
- **Well done!!**
- I really had a nice time here! **Thank you!**
- I'm **looking forward to the 2nd CRL/NRL** workshop
- I would **like to participate in the next one!**
- Congratulations for the **high standards**. Please provide the presentations printed or in a CD.
- Thanks, it was really **excellent organized**. **Well done!**

Workshop Presentations soon available via the Internet



The screenshot shows the homepage of the Community Reference Laboratories for Residues of Pesticides (CRL) website. The header features the CRL logo and the text 'Community Reference Laboratories for Residues of Pesticides'. Below the header is a navigation bar with links: Home, Fruits and Vegetables, Cereals, Food of Animal Origin, and Single Residue. A search bar is also present. The main content area is divided into three columns. The left column, titled 'Topics', lists 'Global Information' (About CRL), 'Proficiency Tests' (EUP SRM 01), 'Workshops' (1st Training Workshop), and 'Member Area' (FIS-VL). The middle column, titled 'Latest News', contains a news item dated 25-01-2007 from CVUA Stuttgart about the '1st joint CRL/NRL Pesticide Residue Training Workshop'. The right column, titled 'Pinboard', shows a date '24-01-2007' and a link to 'CRL workshop 6th-7th December in Stuttgart'. Below the news section is an 'About CRL' section explaining the concept of CRLs and NRLs, and a 'Read full article...' link. At the bottom, there are links for 'Print page', 'Recommend page', 'Imprint and Legal statement', and 'Internal'. A copyright notice states '© 2006-2007 Community Reference Laboratories for Residues of Pesticides All Rights Reserved.' and a logo for DG SANCO, European Commission is at the very bottom.

Community Reference Laboratories for Residues of Pesticides

You are here: Home

Home · [Fruits and Vegetables](#) · [Cereals](#) · [Food of Animal Origin](#) · [Single Residue](#)

Search

Topics

- Global Information**
[About CRL](#)
- Proficiency Tests**
[EUP SRM 01](#)
- Workshops**
[1st Training Workshop](#)
- Member Area**
[FIS-VL](#)

Latest News

25-01-2007 | CVUA Stuttgart

1st joint CRL/NRL Pesticide Residue Training Workshop

According to Article 32 of the EU-Regulation 882/2004 the Community Reference Laboratories (CRLs) are responsible, among other tasks, for the organisation of workshops and training of laboratories in the Members States. The 1st CRL/NRL Pesticide Residue Training Workshop was jointly organized by the CRLs for Pesticide Residue Analysis in Fruits and Vegetables, in Cereals and Feeding Stuff and using Single Residue Methods and took place on the 6th and 7th of December 2006 at the facilities of the CRL for Single Residue Methods near Stuttgart (Germany).

[Show all News...](#)

About CRL

The concept of the Community Reference Laboratories (CRLs) and National Reference Laboratories (NRLs) is layed down in the Regulation (EC) No 882/2004 of the European Parliament and of the Council. The overall objective of the CRLs and NRLs is to improve the quality, accuracy and comparability of the results at official control laboratories.

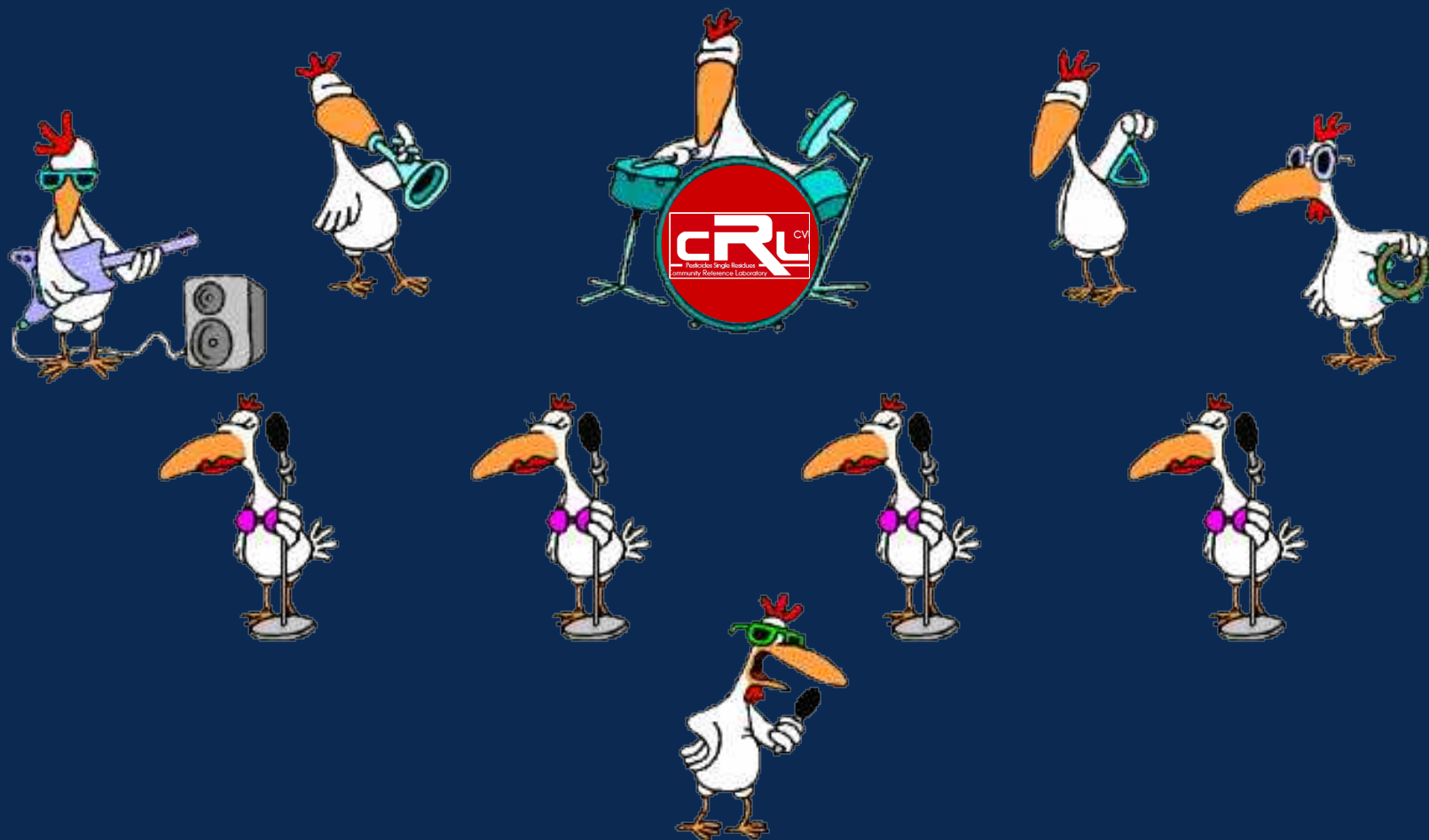
[Read full article...](#)

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DG SANCO
EUROPEAN COMMISSION

The power of working together...



Graphic from Amadeo Fernandez Alba

CRL-SRM

SCFAH Meeting /12 February 2007

Community Reference Laboratory
for Pesticide Residues
using Single Residue Methods

Closing session

Participants of the 1st joint CRL/NRL Workshop in Stuttgart 6th / 7th Dec 06

(not complete)



Thank you

For your interest and attention



...our Pesticide Residue Team...