



OVERVIEW of CONSUMER SAFETY LABORATORIES of PUBLIC HEALTH INSTITUTION

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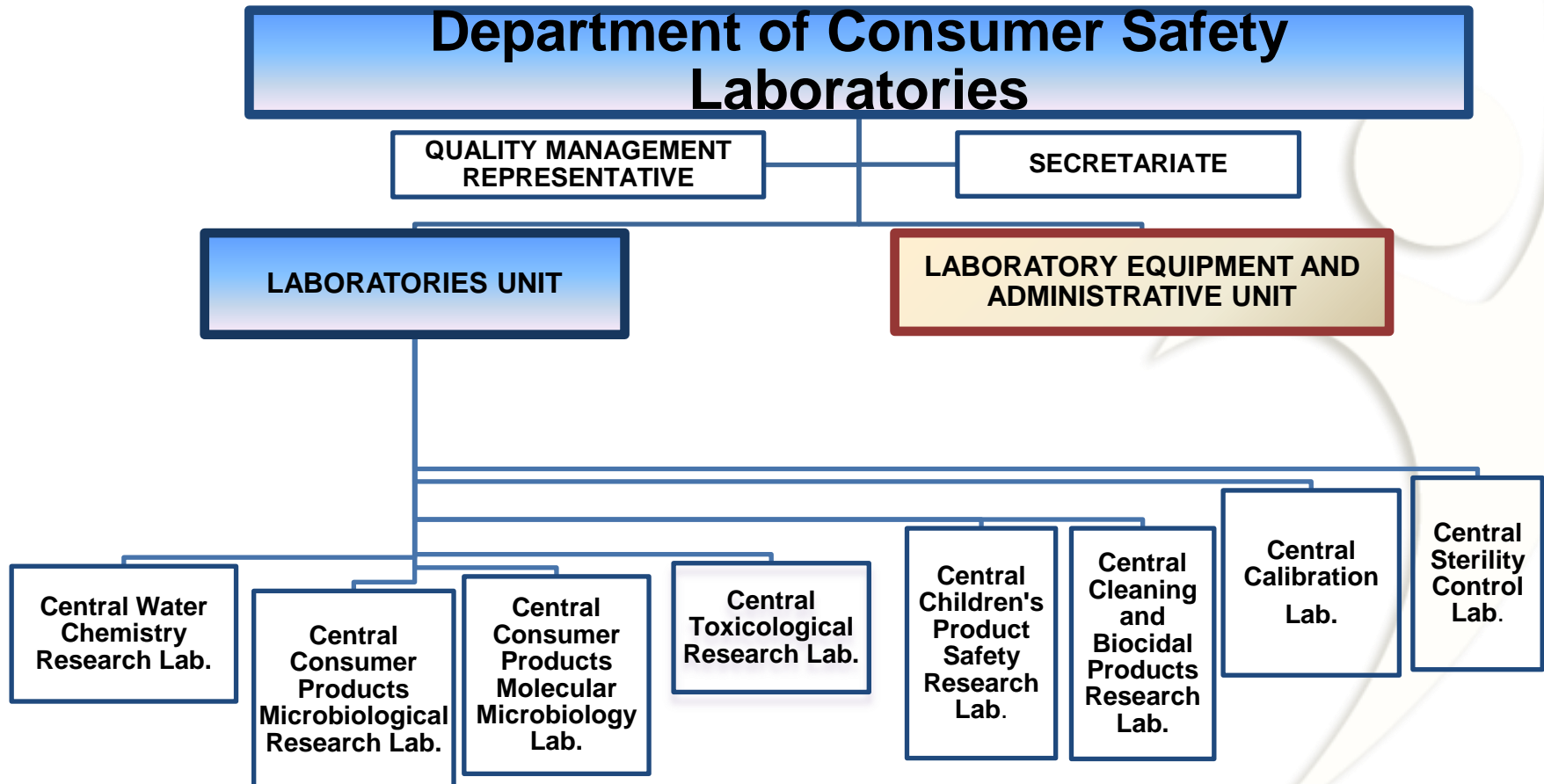


SCOPE

- ✓ **Overview of Consumer Safety Laboratories Department (CSLD)**
 - Staff Profile
 - Analysis Parameters and Sample Profile
 - Equipments Profile



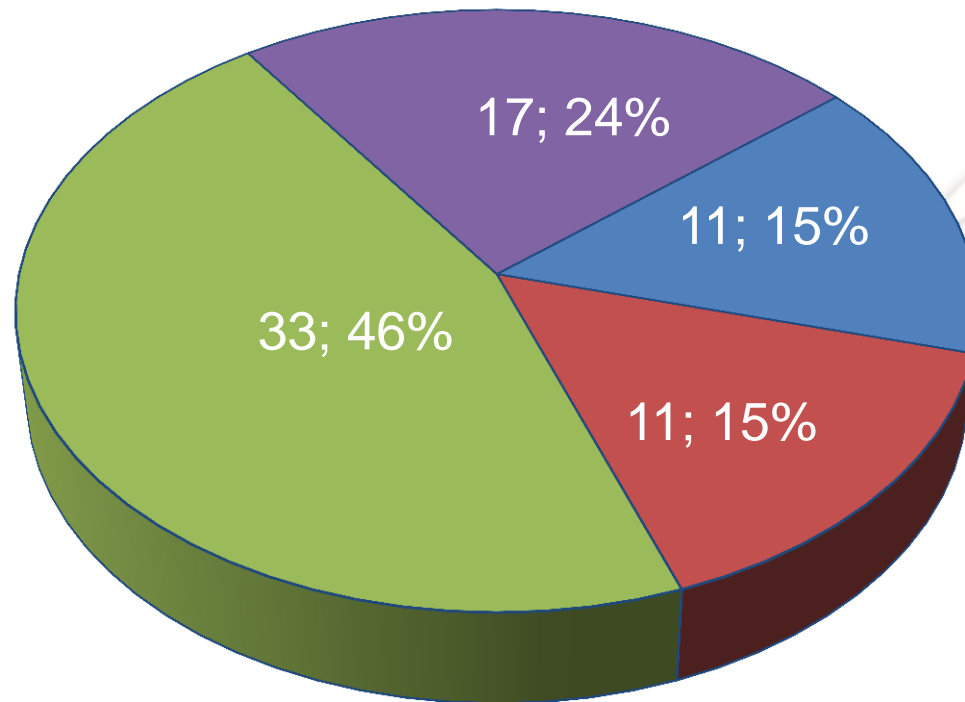
PHIT: CSLD – Organization Scheme





PHIT: **CSLD**- Staff Profile of Laboratories

■ **PhD.** ■ **MSc.** ■ **BSc.** ■ **Others**





CSLD- Equipments/ Analysis/ Sample Profile

Equipment Name	Analysis Name	Matrices
ICP-MS AAS	<ul style="list-style-type: none">MetalsHeavy MetalsSemi-Metals	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal WatersBlood and UrineFoods
HPLC HPLC-RF	<ul style="list-style-type: none">Polycyclic aromatic hydrocarbons (PAHs)Aflatoxins	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal Waters
GC-ECD GC-PFPD	<ul style="list-style-type: none">Pesticides	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal Waters
GC-MS GC-MS/MS	<ul style="list-style-type: none">PesticidesVolatile organic compounds (VOCs)Monomers	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal WatersFoods
LC-MS/MS	<ul style="list-style-type: none">PesticidesMonomersBisphenol APhenylalanine	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal Waters
TOC	<ul style="list-style-type: none">TOC	<ul style="list-style-type: none">Drinking/ Mineral/ Spring and Thermal Waters



CSLD- Equipments and Analysis Parameters

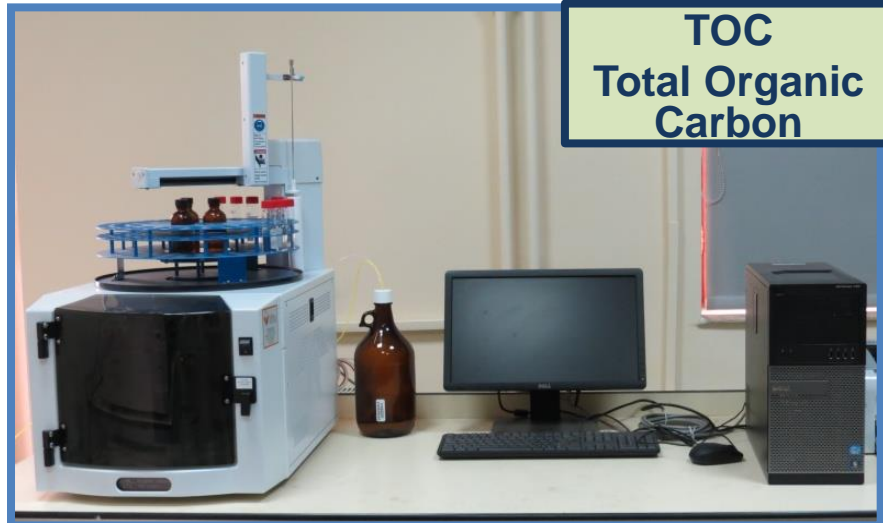
ICP-MS
Metal/ Heavy
Metal Analysis



AAS
Metal/ Heavy
Metal Analysis



TOC
Total Organic
Carbon

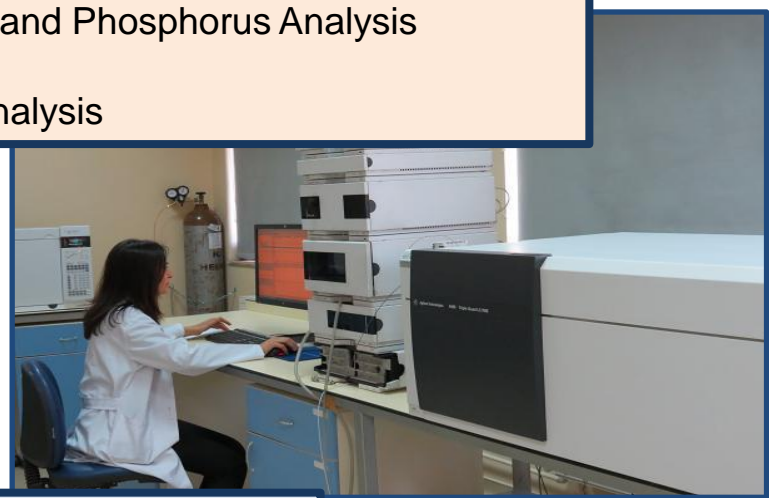
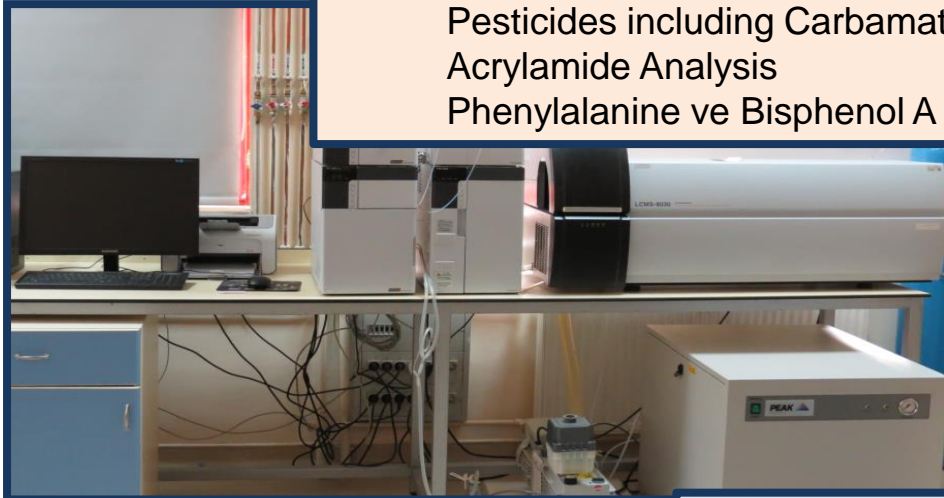




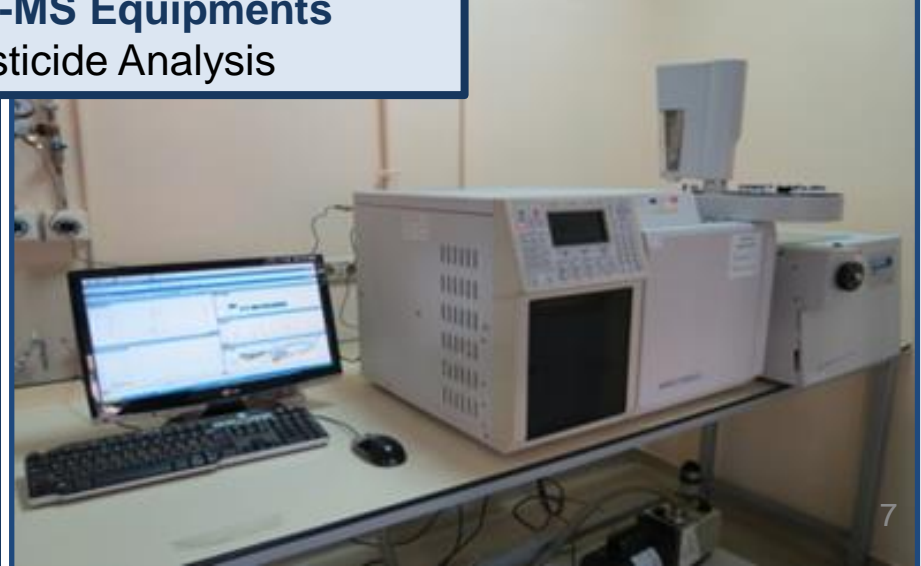
CSLD: Equipments and Analysis Parameters

LC-MS/MS Equipments

Pesticides including Carbamate and Phosphorus Analysis
Acrylamide Analysis
Phenylalanine ve Bisphenol A Analysis



GC-MS Equipments Pesticide Analysis





CSLD: Equipments and Analysis Parameters

GC-MS PURGE and TRAP Systems

Analysis of VOC, Epichlorohidine ve Vinyl chloride



GC HEAD SPACE (ECD) Systems

Analysis of Chlorine
Pesticides



GC (PFPD) Systems

Analysis of Phosphorus
Pesticides

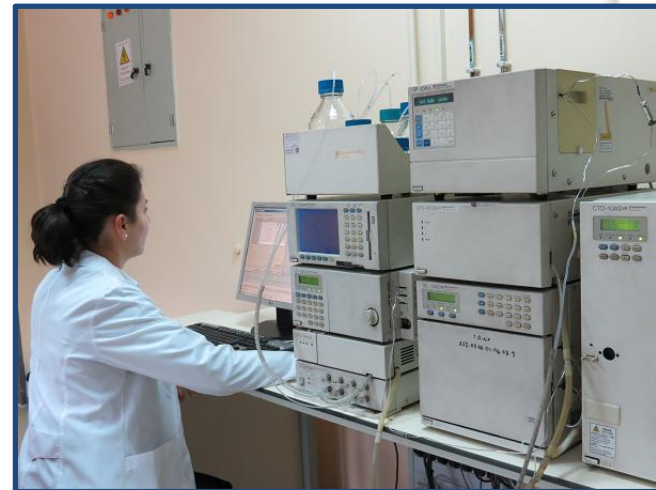
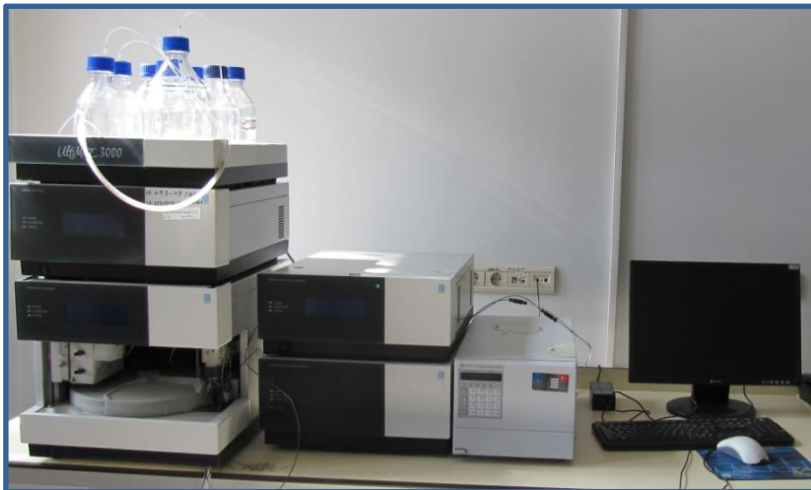




CSLD: Equipments and Analysis

HPLC

PAHs and Aflatoxin Analysis





CSLD: Central Water Chemistry Research Lab.- Equipments and Analysis

Central Water Chemistry Research Lab.

Type of samples

Spring, drinking-potable, mineral waters

Type of analysis

Registration, Audit and control monitoring of waters;
water samples in the case of extraordinary events

Residue Lab.

Equipments and analysis parameters

Pesticides

GC-ECD
GC-PFPD
LC-MS/MS

PAHs

HPLC-RF

VOCs

GC-MS/MS

Monomers

GC-MS/MS
LC-MS/MS

Metals

ICP-MS

Anions

ion
chromatography

Total organic carbon

TOC

Others

- Cuvette test
- Physical
analysis

Water Chemistry Lab.

Equipments and analysis parameters



CSLD: Central Consumer Products Microbiological Research Lab.- Analysis

Central Consumer Products Microbiological Research Lab.

WATER MICROBIOLOGY LAB.

Type of samples

Spring, drinking-potable, mineral waters

Type of analysis

Licensing, Audit and control monitoring of waters;
water samples in the case of extraordinary events and epidemics.

Parameters

Total Coliform Bacteria
Total colony count
E. Coli
Enterococcus
P. Aeruginosa
S. Aureus
Salmonella
C. Perfringens
Sulfide Reducing Anaerobic
Bacteria
Parasite

CONSUMER PRODUCT MICROBIOLOGY LAB.

Type of samples

Food, Medical Purpose Nutrition products, food
supplements

Type of analysis

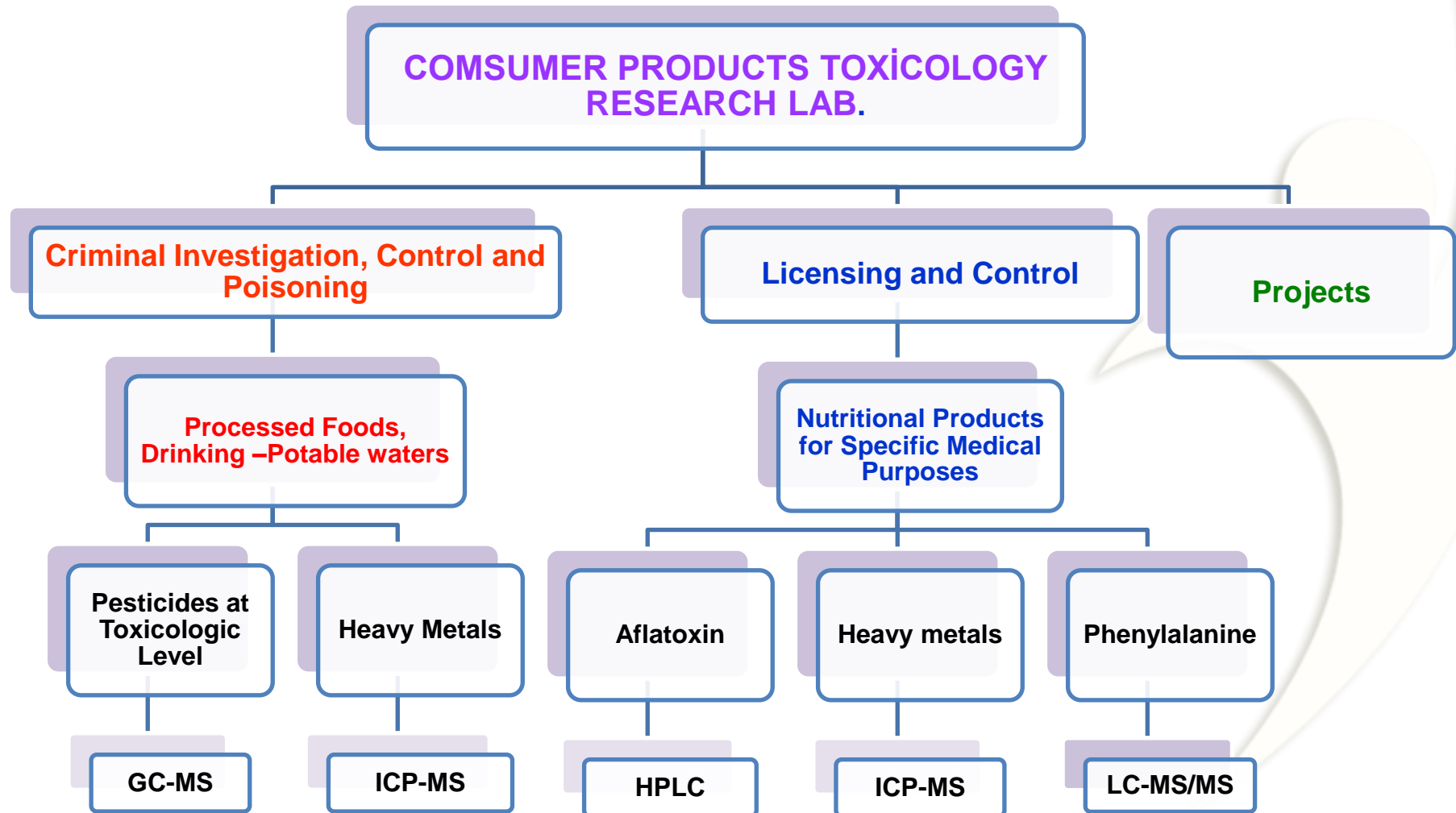
Licensing, poisoning, complaint, control, criminal
investigation

Additional parameters of Water Microbiology

Aerobic colony count
B. Cereus
Coagulase-positive Staphylococci
L. Monocytogenes
Termotoleran Campylobacter spp.
E. Coli O157
Staphylococcal Enterotoxin
C. Albicans
C. Aakazakii
Yeast and mold count



CSLD: Central Toxicology Research Lab.- Analysis





CSLD: Central Calibration Lab.

CENTRAL CALIBRATION LAB.

Mass- Balance Calibration Lab.

Parameters
Masses and Scales

Volumetric Calibration Lab.

**Piston pipettes, glass
and other volumetric
measures**

**Temperature
Calibration Lab.**

**Temperature-controlled
volumetric measures (ovens,
freezer etc.).**
**Thermometers with Glass and
digital displays**



CSLD: Central Sterility Control Laboratory

CENTRAL STERILITY CONTROL LAB.

Biosafety Cabinet Inspections (Tests)

- Air Flow, Air Velocity Test
- HEPA Filter Leakage Test
- Pressure Difference Test
- Air flow direction and Visualization Test

Laminar Flow Device Inspections (Tests)

- Air Flow, Air Velocity Test
- Air flow direction and Visualization Test

Inspections of Fume Hood

- Air Flow, Air Velocity Test
- Air flow direction and Visualization Test



Stockholm Convention on Persistent Organic Pollutants (UNEP, 1995);

chemical substances that persist in the environment, bio-accumulate through the food web, and pose a risk of causing **adverse** effects to

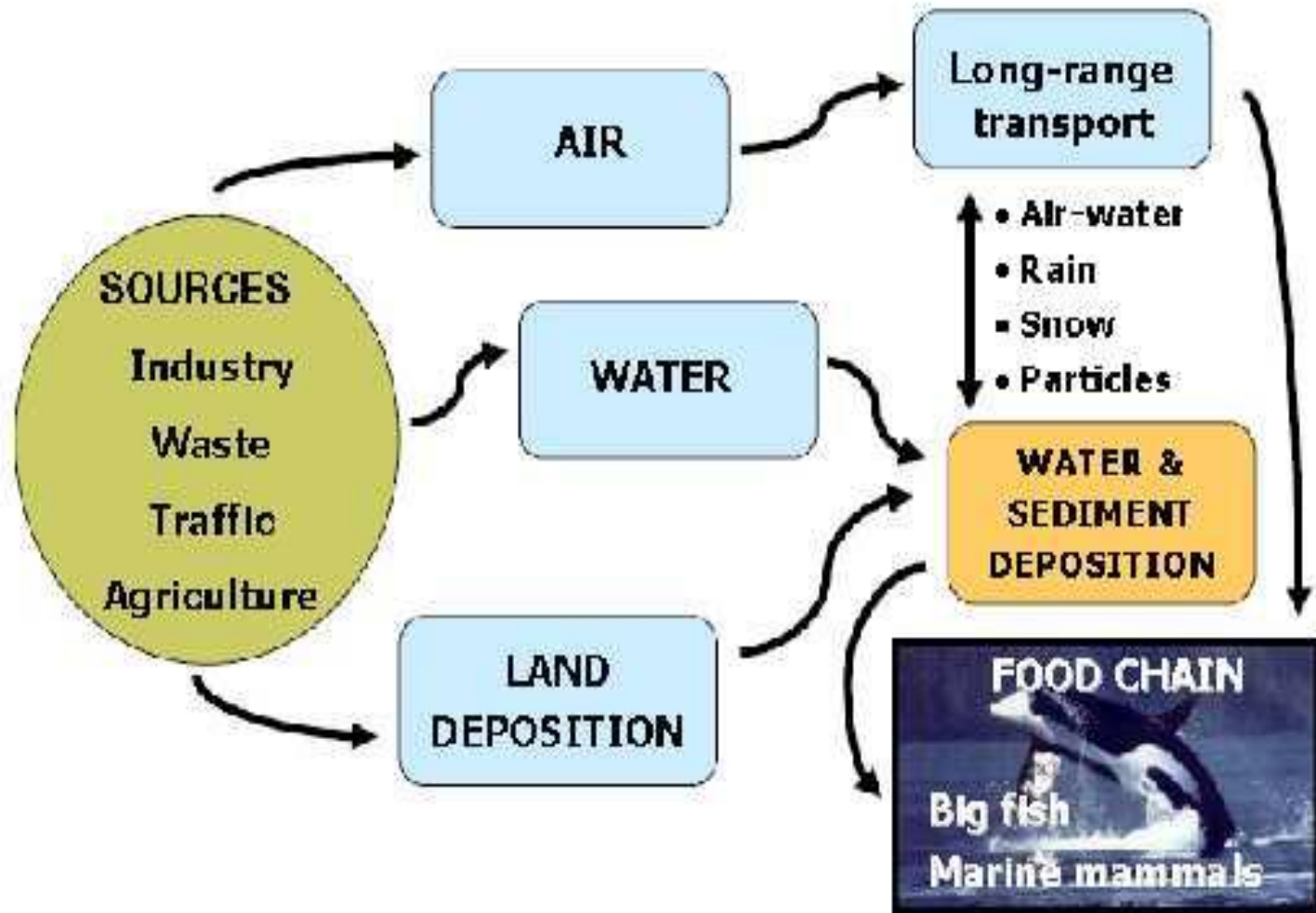
- **human health**
- and
- the environment



**Ministry of Health,
Public Health
Institution of Turkey**



POPs IN THE ENVIRONMENT





**Some chemicals known as potential EDPs already
analysed by CSLD**

Atrazine

Bisphenol A

Malathion

Tebuconazole

Simazine

Carbofuran

Endosulfan

acrylamide

Benzene

Benzo(a)pyren

Phthalates



CHEMICAL	PESTICIDE	INDUSTRIAL CHEMICAL	BY PRODUCT	Analysis In Our Labs.	In future
Aldrin	+			+	
DDT	+			+	
Dieldrin	+			+	
Endrin	+			+	
heptachlor	+			+	
mirex	+			-	
chlordan	+			-	
toxaphene	+			-	
hexachlorobenzene	+	+	+	+	
PCBs		+	+	-	
polychlorinated dibenzo-p-dioxins (Dioxins)			+	-	
polychlorinated dibenzofurans (Furans)			+	-	



Conclusion

- Consumer Safety Laboratories, in addition to routine analyses, also devise some projects providing scientific evidence based data on subjects related to Public Health Problems of Turkey with the infrastructure and colleague of Labs.
- In order to conduct research projects our department is ready to every kind of co-operation and contribution with other National and/or International Institutions, organizations and Universities.



Thanks for your attention

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