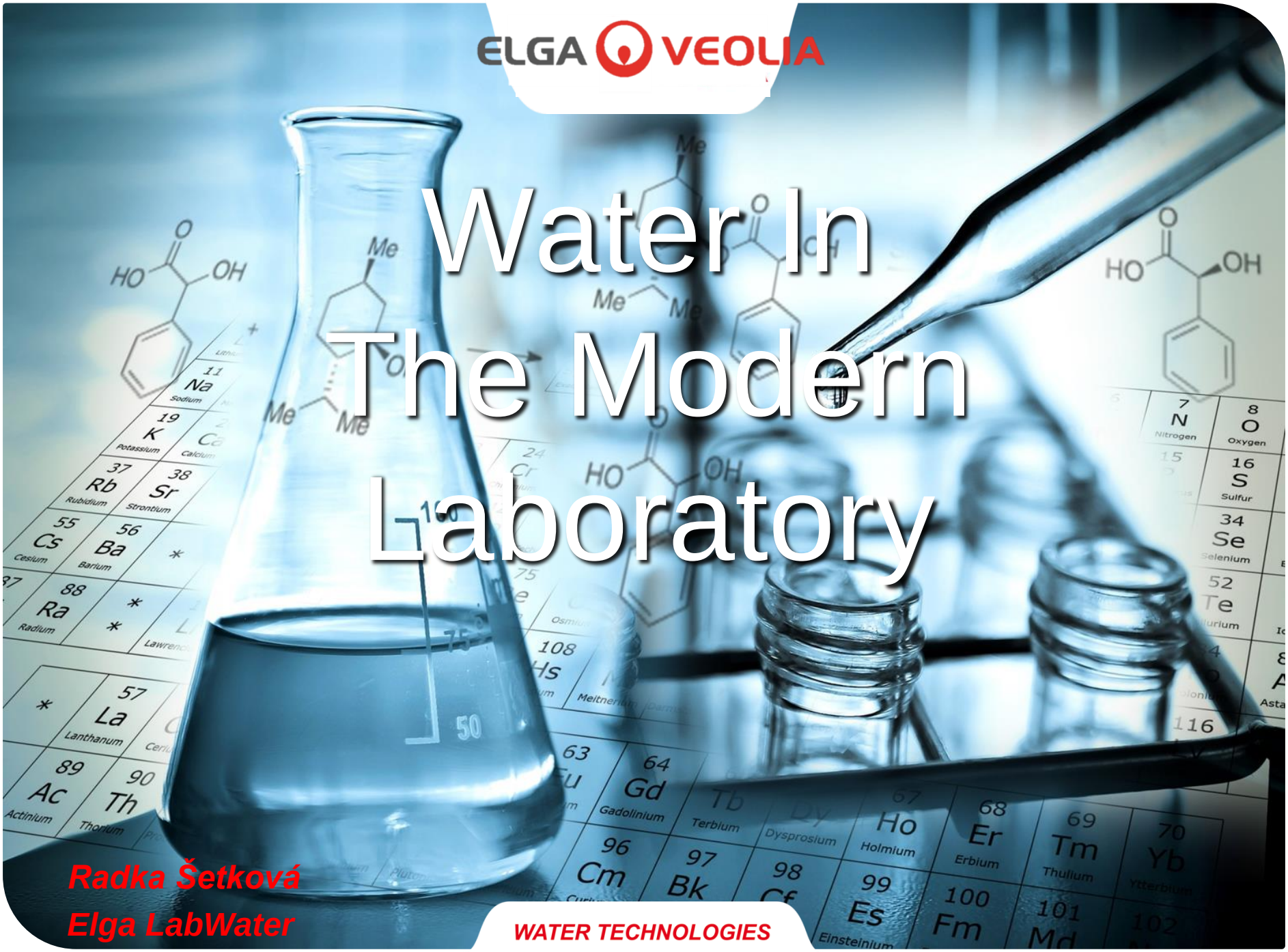
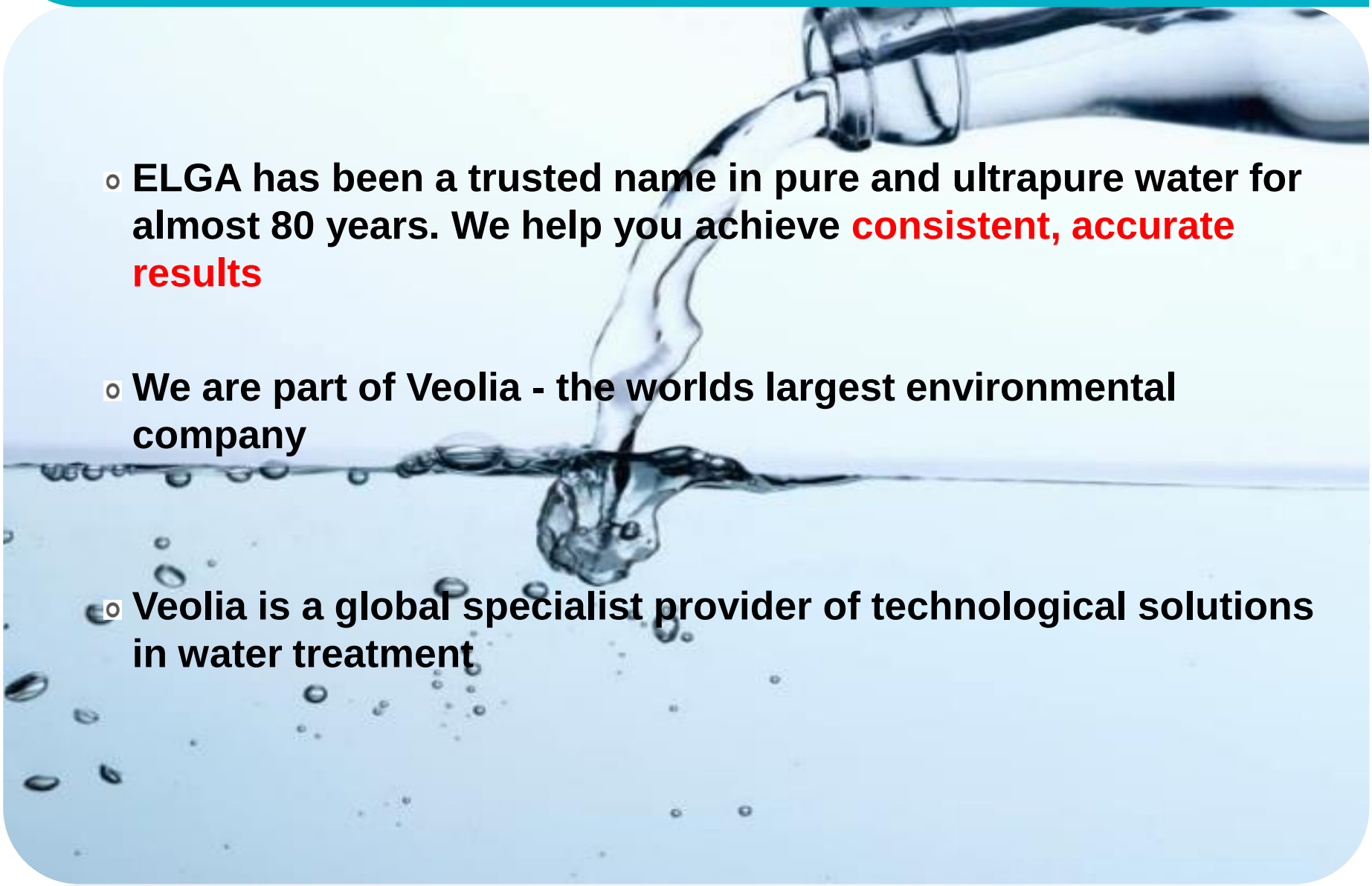

ELGA VEOLIA
Water In
The Modern
Laboratory
Radka Šetková
Elga LabWater
WATER TECHNOLOGIES

- *ELGA – introduction*
- *Water – The Essence of the Lab*
- *ELGA products*

Who is ELGA?



- ELGA has been a trusted name in pure and ultrapure water for almost 80 years. We help you achieve consistent, accurate results
- We are part of Veolia - the worlds largest environmental company
- Veolia is a global specialist provider of technological solutions in water treatment

Who is ELGA

Our ‘voice of the customer’ program bases product development on customer needs and feedback

ELGA’s expert engineers, chemists and scientists are **at the forefront of technological innovation**

Water is…

The key reagent of almost all your experiments

Water is more complex than you realize

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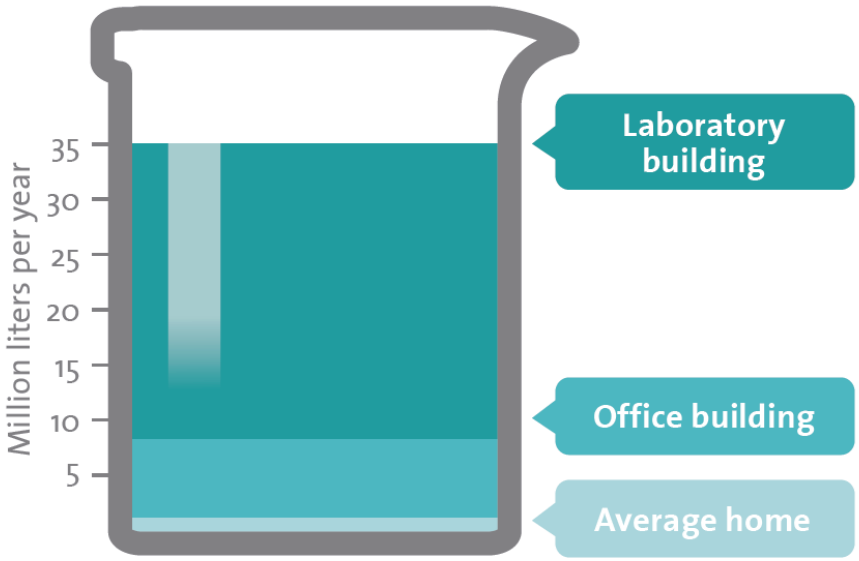
Water in the laboratories

1. Laboratories use a lot of water



A typical laboratory is estimated to use around 5 times as much water as a similarly sized office building[1, 2, 3]

35 million liters per year is enough to fill over 14 Olympic-sized swimming pools

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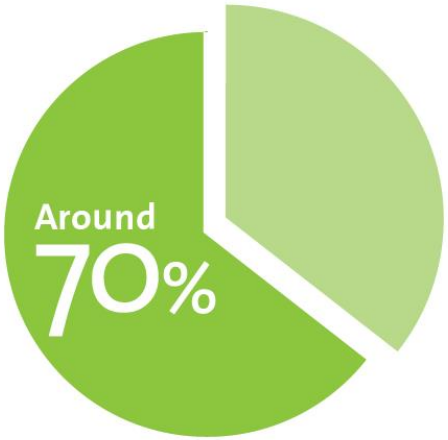
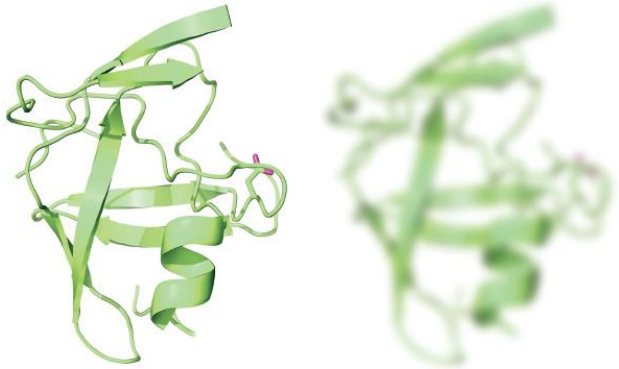
Water quality impact

2. Water quality and purity is essential to successful research



of HPLC performance problems are thought to be directly attributable to water quality[4]

Solving molecular structures with 2D NMR depends on pure water for sensitivity[5]



Water impurities can affect most enzymatic reactions needed for molecular biology[6]

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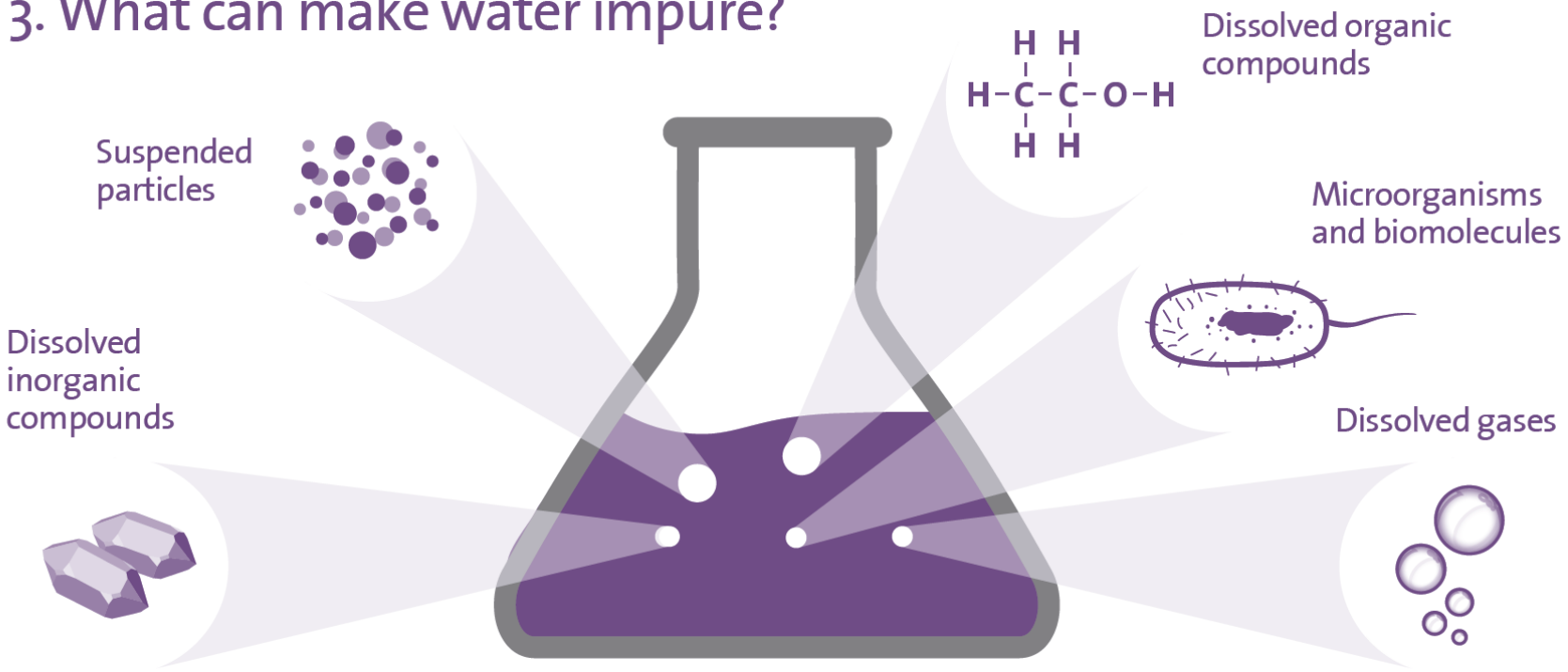
Water contaminants

3. What can make water impure?



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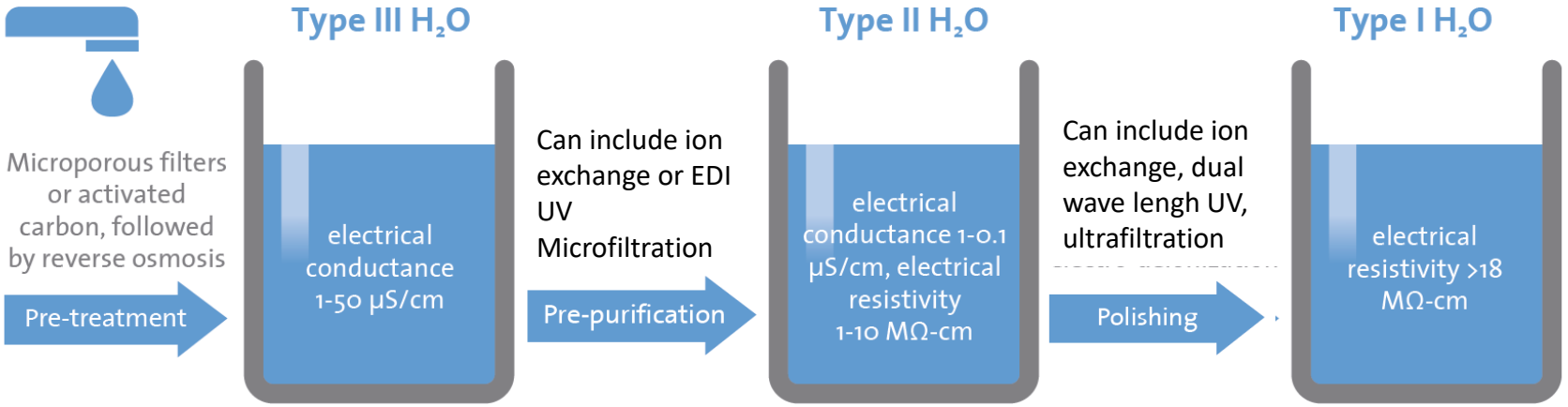
Water types

4. Different types of pure water exist



Free of 98% suspended solids, chlorine, 90% of ionic and most organic components

95% pure, free of most inorganic and organic molecules and microorganisms, free of suspended solids

99.9999999% pure (impurities <1 ppb), practically free of endotoxins, microorganisms, dissolved gases, organic and inorganic molecules

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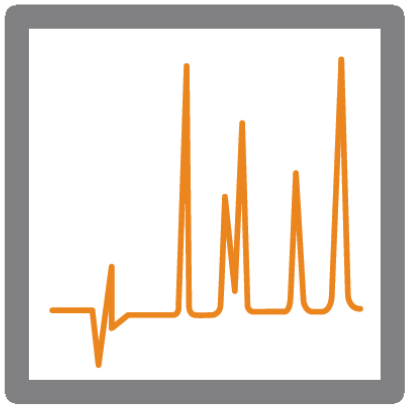
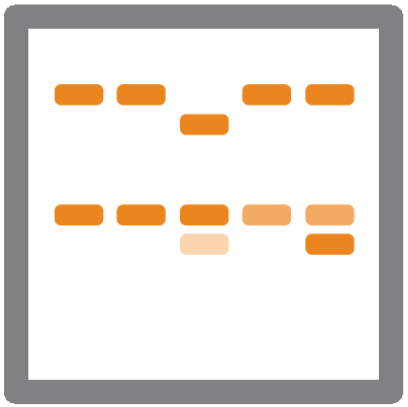
Right purity for the application

5. Choosing the right purity for your experiments



Ultrapure - Type I:

- High sensitivity analytical techniques
- Most molecular biology applications
- ICP-MS
- HPLC
- Ion chromatography
- DNA sequencing
- Mammalian cell culture
- IVF



Purified - Type II:

- General lab applications
- Making up reagents, buffers, media
- Some analytical techniques, such as:
  - Flame atomic absorption spectrometry
  - Electrophoresis

Primary Grade - Type III:

- Washing glassware
- Feeds to equipment (autoclave)
- Water baths

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PURELAB RANGE

WATER TECHNOLOGIES

PURELAB Product range

The PURELAB® range designed specifically for research and analysis applications

ELGA VEOLIA

PURELAB Chorus range

The Concept:

- **Empowering our customers with the freedom of choice**
- **Choice – to configure a solution which fits their specific Application, Budget & Configuration**
- **Confidence & security – customers chosen solution exactly meets their needs**

PURELAB range

Some of the Key Features

WATER TECHNOLOGIES

Recirculation

Recirculation Type II water stored in the reservoir via UV and DI/EDI

- *Moving water will protect against biofilm*
- *Passing the water repeatedly through UV and purification media removes bacteria and other impurities on an on-going basis*

- Recirculation to the point of use in Type I water systems

Elga systems – water monitoring

- Water monitoring at point of use

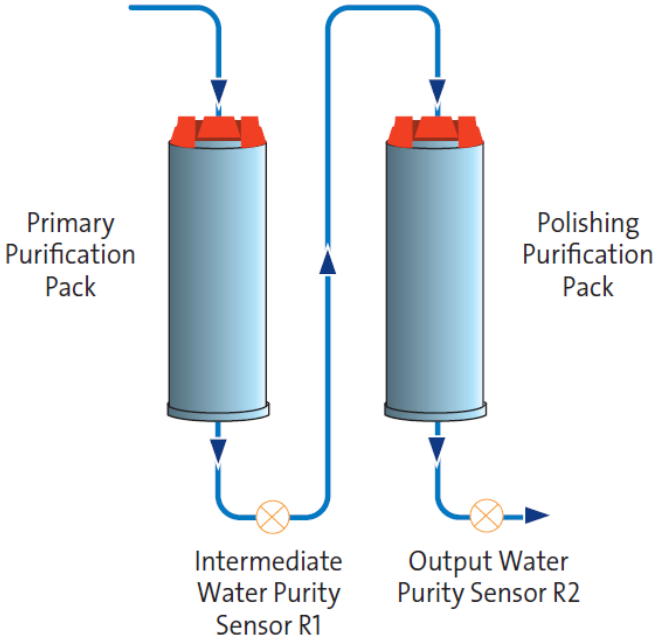
You know the water quality of dispensed water!!!

The PureSure®

Guaranteed Purity

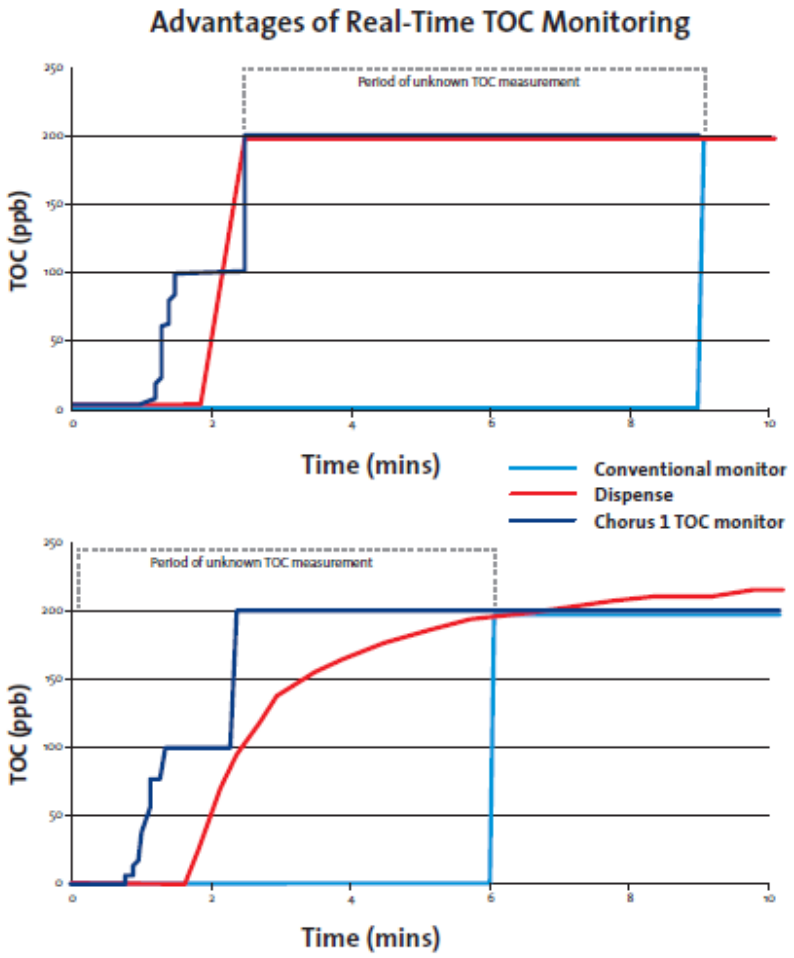
Early warning of purification pack Exchange

Cost savings



Real Time TOC

The ELGA TOC monitoring provides reliable and fast indication of organic purity. This enables the user to identify any heavy organic loading on the system before dispensing ultrapure water



	PURELAB Chorus 1				PURELAB Chorus 2 & 3				PURELAB flex		
	Life Science	Analytical Science	General Science	Complete	2+ (RO/EDI/UV)	2+ (RO/DI/UV)	2 (RO/DI)	3	flex 1	flex 2	flex 3&4
Water Type											
Ultrapure Type I	✓	✓	✓	✓						✓	✓
Pure Type II					✓	✓	✓		✓		
General Type III								✓	✓		

	PURELAB Chorus 1				PURELAB Chorus 2 & 3				PURELAB flex		
	Life Science	Analytical Science	General Science	Complete	2+ (RO/EDI/UV)	2+ (RO/DI/UV)	2 (RO/DI)	3	flex 1	flex 2	flex 3&4
Impurities to remove											
Nucleases	✓	✓*	✓*	✓*	✓*	✓*				✓*	✓*
Endotoxins / Pyrogens	✓	✓*	✓*	✓*	✓*	✓*				✓*	✓*
Inorganics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Organics	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Bacteria	✓	✓	✓*	✓	✓	✓	✓	✓	✓*	✓*	✓
Particulates	✓	✓	✓*	✓	✓	✓	✓	✓	✓*	✓*	✓*
Trace Ions	✓	✓	✓								

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	PURELAB Chorus 1				PURELAB Chorus 2 & 3				PURELAB flex		
	Life Science	Analytical Science	General Science	Complete	2⁺ (RO/EDI/UV)	2⁺ (RO/DI/UV)	2 (RO/DI)	3	flex 1	flex 2	flex 3&4
Features											
PureSure®	✓	✓	✓								
Real time TOC monitoring	✓	✓	✓							✓	✓
Potable water feed				✓	✓	✓					✓◊
Wall mounting	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Floor mounting	✓	✓	✓	✓	✓	✓	✓	✓			
Purity monitoring to POU*	✓	✓	✓	✓	✓	✓			✓	✓	✓
Halo Dispense compatible	✓	✓	✓	✓	✓	✓					
Auto Volume Dispense	✓†	✓†	✓†	✓†	✓†	✓†			✓	✓	✓
Variable flow rate dispense	✓†	✓†	✓†	✓†	✓†	✓†			✓	✓	✓
Drop-by-drop control	✓†	✓†	✓†	✓†	✓†	✓†			✓	✓	✓
Locked dispense	✓†	✓†	✓†	✓†	✓†	✓†			✓	✓	✓
USB connection	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Full product validation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

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For more information please

contact ACM2

www.elgalabwater.com

WATER TECHNOLOGIES