

Market for Small Wastewater Treatment Plants - The Role of Notified Bodies in Europe

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Smallwat 11
3rd International Conference
Wastewater in Small Communities

Small Wastewater Treatment Plants < 50 PE



Steel

- Aerated sludge reactor
- Fixed film reactor
- Moving bed reactor
- SBR
- Trickling filter
- Membrane bioreactor
- Constructed wetland
- Filtration systems



Concrete



PE



HDPE

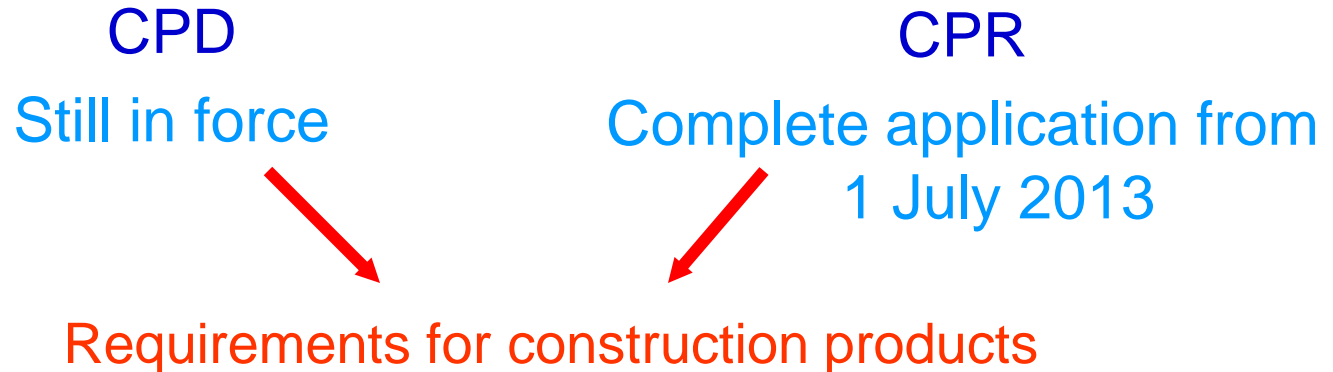


GRP



Construction Products

New approach in Europe ▶ free movement of goods



- implemented in MS`s different regulatory framework
- CE-marking non mandatory in 4 MS`s
- directly applicable in MS`s
- Declaration and CE- marking mandatory where there is a hEN
- new aspects like sustainability, market surveillance

EN 12566: Attestation of conformity system for SWTS



Enterprise & Industry

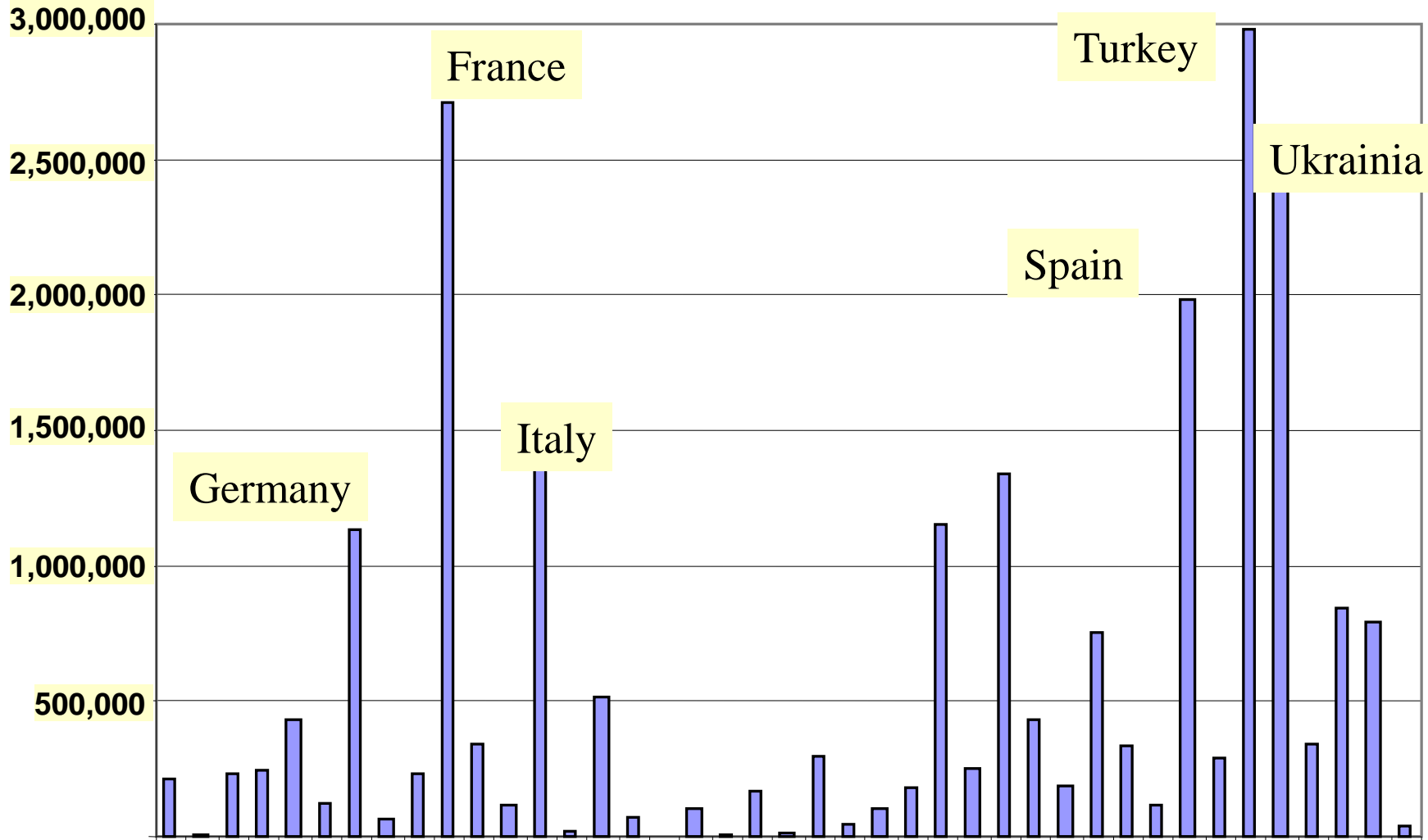
Directive

89/106/EEC Construction products

Decision	Product family, product /Intended use	AOC system	Technical specification	Body function
97/464/EC	Waste water engineering products outside buildings (1/3) : • Kits and elements for waste water treatment plants and on-site treatment equipment	System 3	EN 12566-1: 2000 EN 12566-3: 2005 EN 12566-4: 2007	Test Laboratory

Standard	Use
EN 12566-1+A1	Prefabricated septic tanks
CEN/TR 12566-2	Soil infiltration systems
EN 12566-3	Packaged and/or site assembled domestic wastewater treatment plants
EN 12566-4	Septic tanks built in situ from prefabricated kits
CEN/TR 12566-5	Pre-Treated Effluent Filtration systems
<i>pr</i> EN 12566-6	Prefabricated treatment units for septic tank effluent
<i>pr</i> EN 12566-7	Prefabricated Tertiary treatment units

SWTS: Future Market in Europe



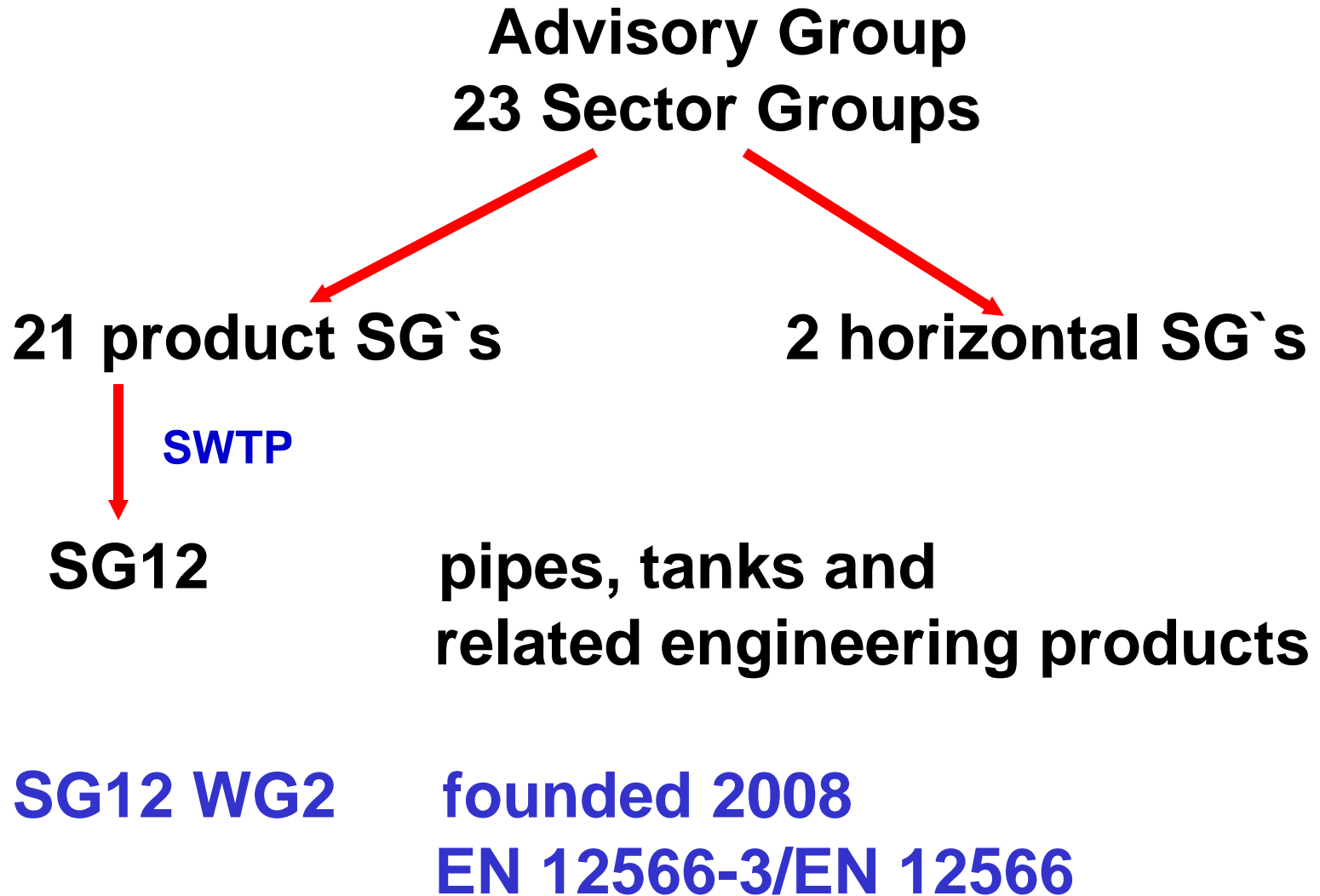
EN 12566-3: Tasks of Notified Bodies

Requirements for ITT	Models to be tested	
Overall dimensions, volume inlets, outlets and connections, accessibility	each	
Watertightness	each	
Structural behaviour		biggest
Treatment efficiency		smallest (38 weeks)
Durability		none if the properties are already known

Notified Bodies - NBs

- over 650 NBs from 29 countries across the European Economic Area
- Listed on Commission`s “NANDO” website
- Input to “NANDO” direct by MS`s
- organised in the Group of Notified Bodies

→ GNB - CPD



Notified Bodies for EN 12566

objectives



foto: CENTA 2010

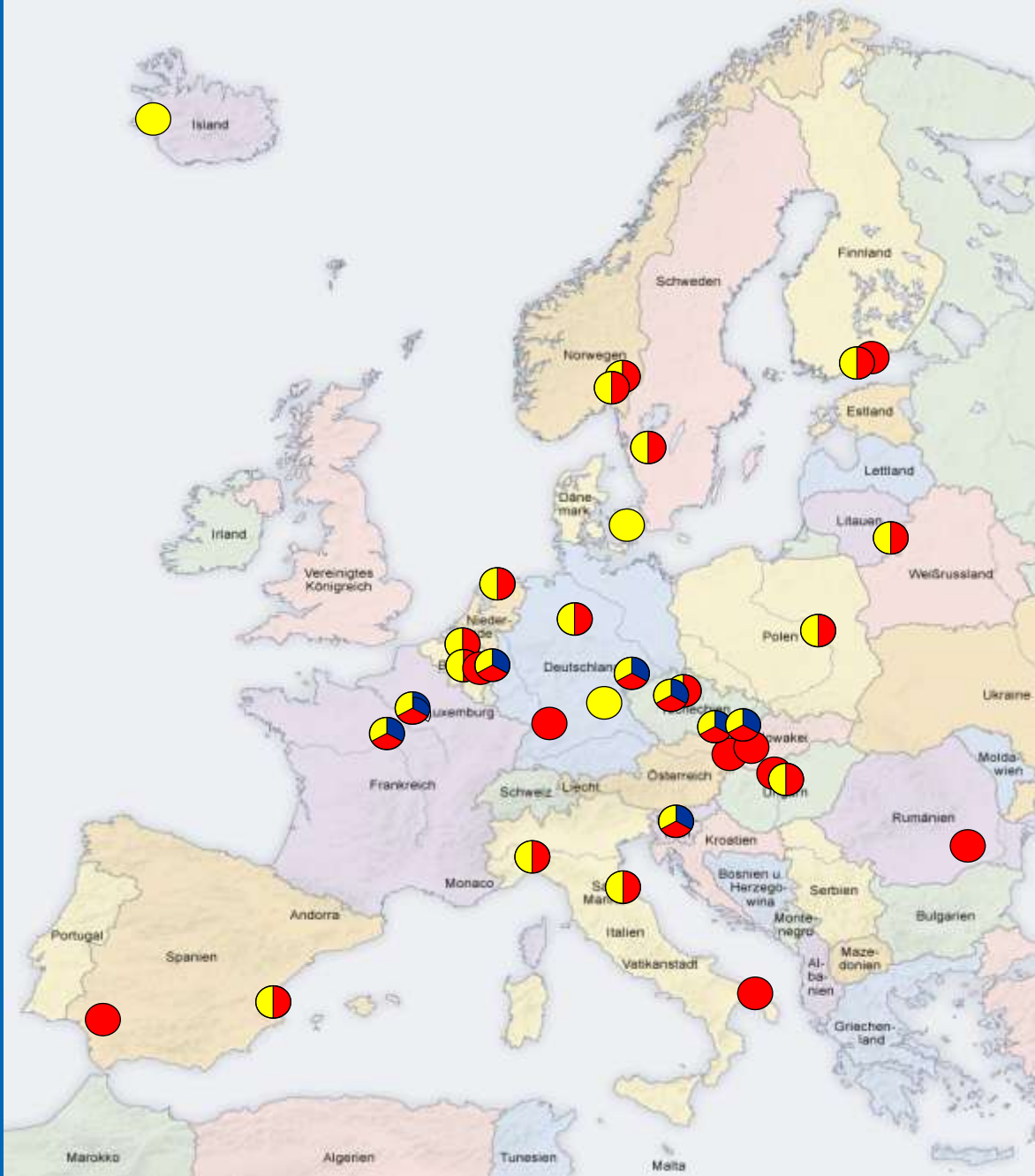
SG12 WG2
meetings 2/year
12 NB`s active

- discussion about problems arising in practice
- same interpretation of the standard
- same testing procedures
- clarification of the standard

↓
working on Position Papers

- cooperation with the CEN (TC165 WG41)
- contact to other NB`s
- confidence in the work of all NB`s

↓
confidence in the product



EN 12566 - Notified Bodies in Europe

35 NB`s

25	EN 12566-1
32	EN 12566-3
7	EN 12566-4

Stand: 15.04.2011



PIA e.V.
**Centre for
Development and
Assessment
in Wastewater Technology**



PIA GmbH
**Testing Institute for
Wastewater Technology**





Tests according to
EN 12566-3
“treatment efficiency”

2001 - 2011

159 plants

115 companies

12 European countries

Testing according to European and International Standards

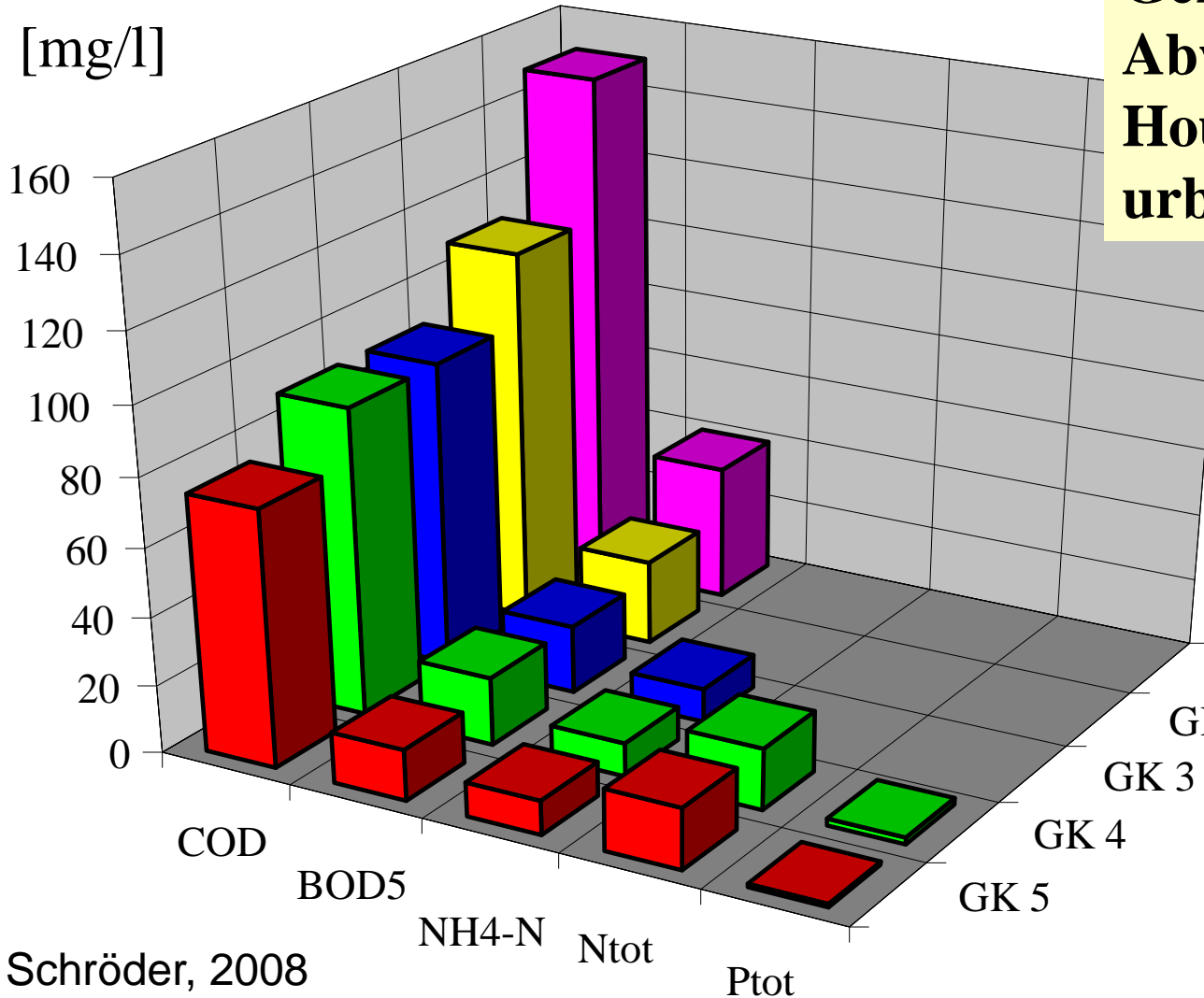
- small wastewater treatment systems
- ship wastewater treatment systems
- greywater treatment systems
- wetlands
- wastewater pumping stations
- septic tanks
- flow measurement systems



Thank you!

Effluent Quality

[mg/l]



Germany
AbwV Annex 1:
Household and
urban Wastewater

- GK 1 < 1,000 PT
- GK 2 < 5,000 PT
- GK 3 < 10,000 PT
- GK 4 < 100,000 PT
- GK 5 > 100,000 PT

Schröder, 2008