

PIN-NL NEWS



PIN-NL // PSE-NL Spring Session
April 13th 2017
Enschede

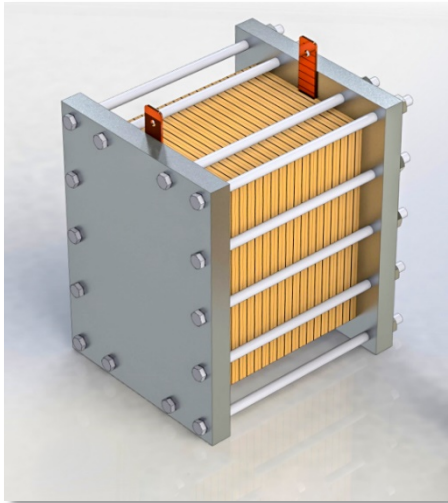
Henk Akse
Chairman PIN-NL

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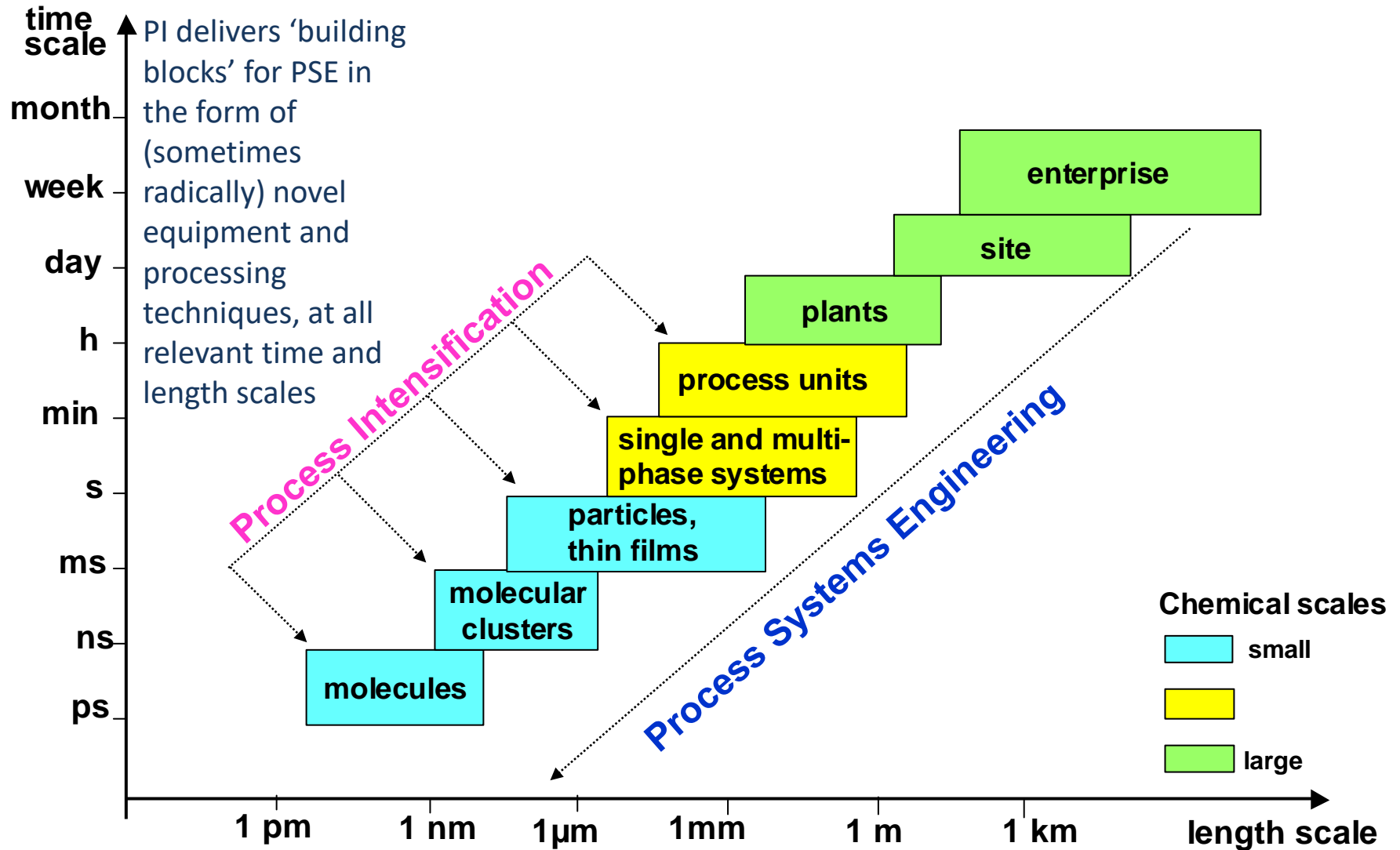
1. PIN-NL developments



- More and more members are looking for execution of joint projects (EAP, Demo, etc.)
- In Q1 2017 PIN-NL was invited by Member Companies to advise on PIN-NL cooperation projects:
 - A Chemical Company in the worldwide top 5
 - One of the largest Dutch Equipment Manufacturers
- Number of PIN-NL Associates has grown to 302 people
- Summer Session: June 21st; Autumn Session November 22nd

2. PI and PSE: definitions

(Courtesy: prof.dr.ir. A.I. Stankiewicz)



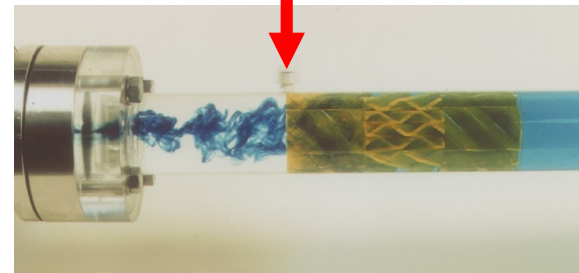
2. PI and PSE: definitions

(Courtesy: prof.dr.ir. A.I. Stankiewicz)



PSE

PI



3. Energy Consumption in Chemical Industry; Europe; 2015

	Country	Energy consumption; 2015	% of total consumption in EU
		TJ/year	
1	Germany	616.179	25,8
2	Netherlands	274.841	11,5
3	France	226.271	9,5
4	Belgium	173.892	7,3
5	Italy	137.830	5,8
6	United Kingdom	122.816	5,2
7	Spain	118.036	5,0
8	Poland	106.776	4,5
9	Turkey	95.861	4,0
10	Norway	60.697	2,5
11	Romania	59.395	2,5
12	Hungary	45.765	1,9
13	Czech Republic	45.588	1,9
14	Ukraine	41.921	1,8
15	Austria	41.919	1,8
16	Finland	41.892	1,8
17	Bulgaria	36.586	1,5
18	Sweden	27.686	1,2
19	Portugal	15.901	0,7

	Country	Energy consumption; 2015	% of total consumption in EU
		TJ/year	
20	Serbia	15.238	0,6
21	Lithuania	14.998	0,6
22	Slovakia	14.754	0,6
23	Denmark	10.834	0,5
24	Ireland	10.545	0,4
25	Slovenia	6.692	0,3
26	Greece	6.602	0,3
27	Croatia	6.338	0,3
28	Luxembourg	2.309	0,1
29	Estonia	1.762	0,1
30	Latvia	976	0,04
31	Albania	637	0,03
32	Bosnia and Herzegovina	425	0,02
33	Former Yugoslav Republic of Macedonia, the	394	0,02
34	Moldova	378	0,02
35	Iceland	292	0,01
36	Cyprus	279	0,01
37	Montenegro	212	0,01
38	Malta	148	0,01
39	Kosovo	54	0,00
<i>Eurostat data; extracted from database 27-3-17</i>			
Total energy consumption		2.383.719	100,0

Germany, the Netherlands, France, Belgium, Italy and Spain use 64,9% of EU consumption

4. Annual Turnover of Dutch Chemical Industry; 2013

- 60 billion € (60 miljard euro)
- #3 of Europe in Turnover terms
- 57.000 people employed

5. Age of Dutch Production Assets and Lifetime of International Markets

- Many Dutch production plants are between 30 – 50 years of age
- Sales forecasts predict existing markets for 20 – 30 years to come

6. Conclusions

- The Netherlands is among the leading countries in Europe
- Aging assets put this position at economic risk

7. What do we need?

CHANGE

CHANGE

CHANGE

CHANGE

INTENSIFY!