



Nanotechnology – what kind of legislative framework do we need in Slovenia?

Nanomaterials:
their impact on humans and on the environment
International environmental symposium, Ljubljana, 20.5.2011

Karmen Krajnc
Chemicals Office of the Republic Slovenia

Chemicals Office of the RS



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graph TD; Director[DIRECTOR] --- Sector1[SECTOR FOR IDENTIFICATION AND RISK ASSESMENT]; Director --- Sector2[SECTOR FOR RISK MANAGMENT]; Director --- Sector3[CHEMICALS INSPECTION];
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DIRECTOR

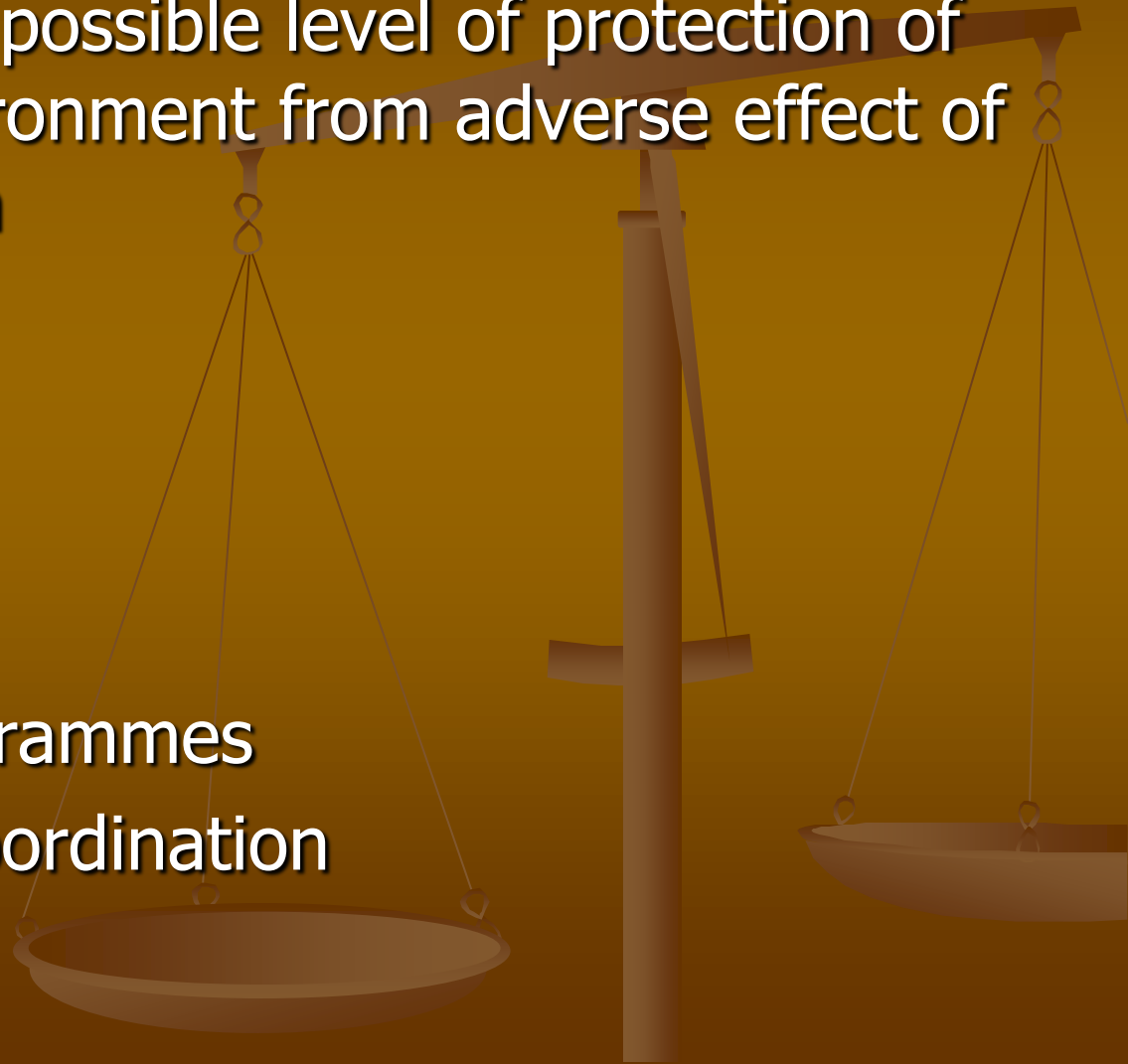
SECTOR FOR
IDENTIFICATION
AND RISK ASSESMENT

SECTOR FOR RISK
MANAGMENT

CHEMICALS
INSPECTION

Mission of the CORS

- to ensure highest possible level of protection of man and the environment from adverse effect of chemicals through
 - Expertise
 - Legislation
 - Regulation
 - Inspection
 - Protection programmes
 - Intersectoral coordination

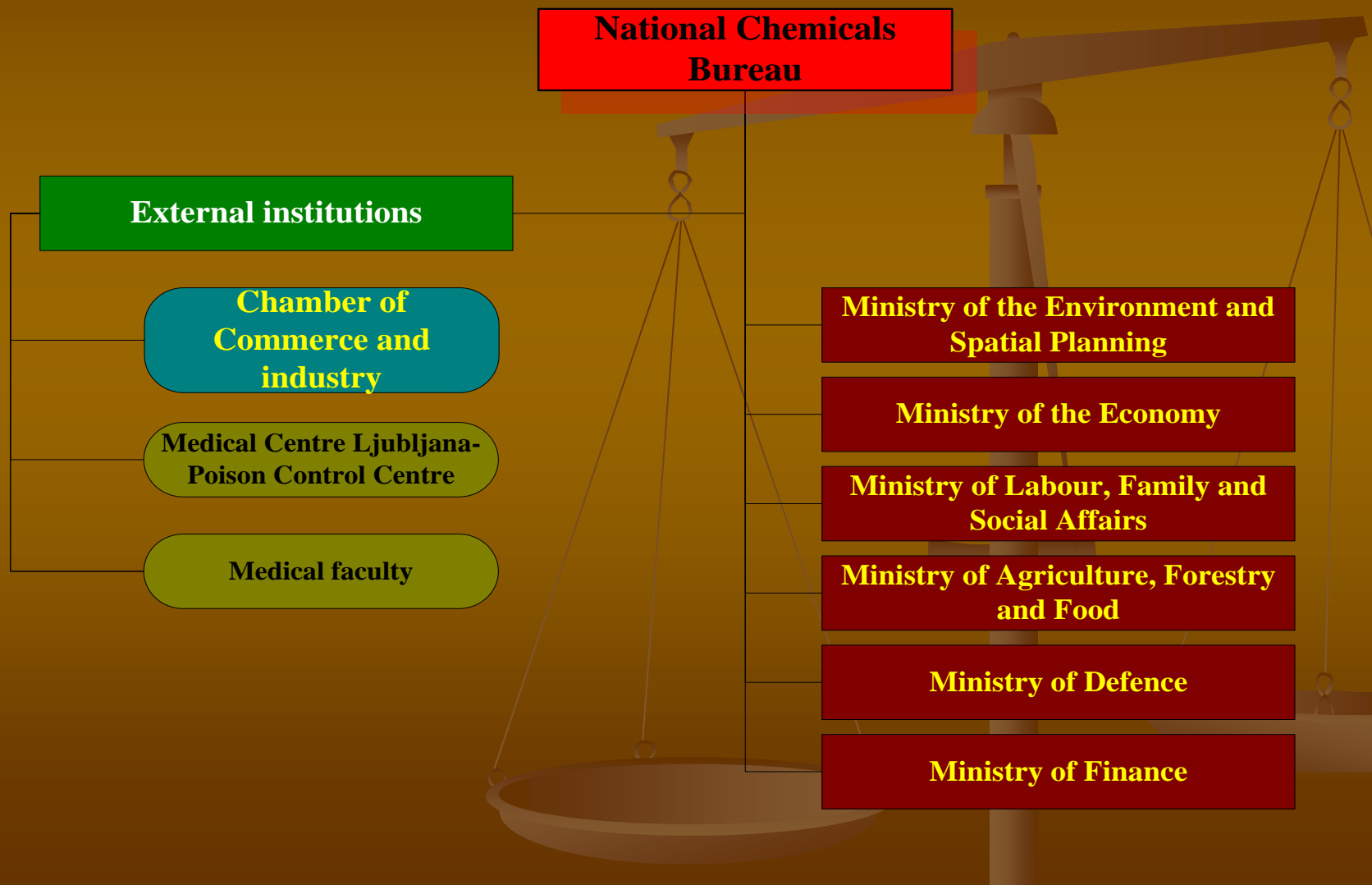


Areas of work

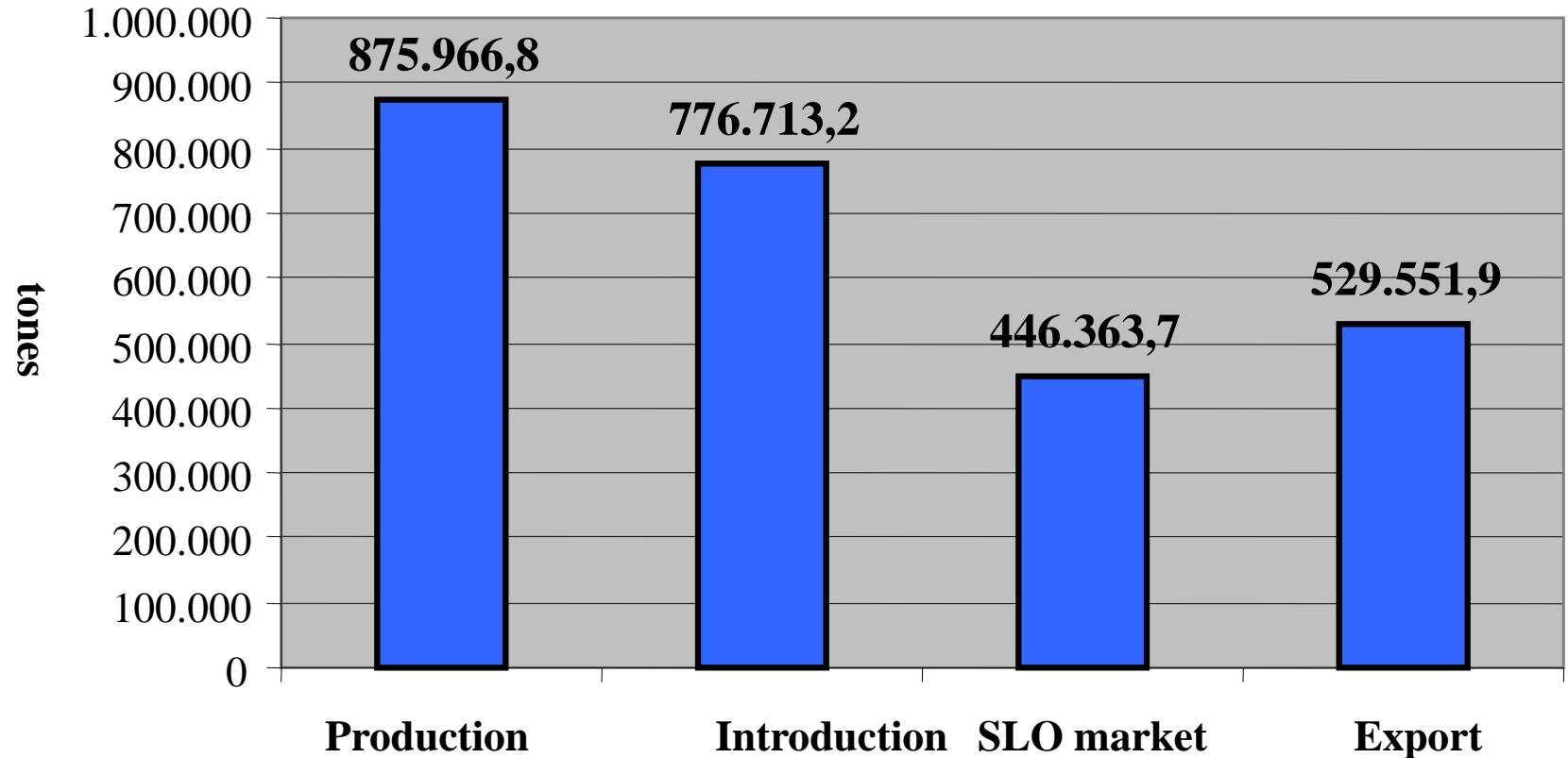
- REACH
- CLP/GHS
- Biocides
- Cosmetics
- Drug precursors
- Strategic goods
- PIC
- POP's
- SAICM



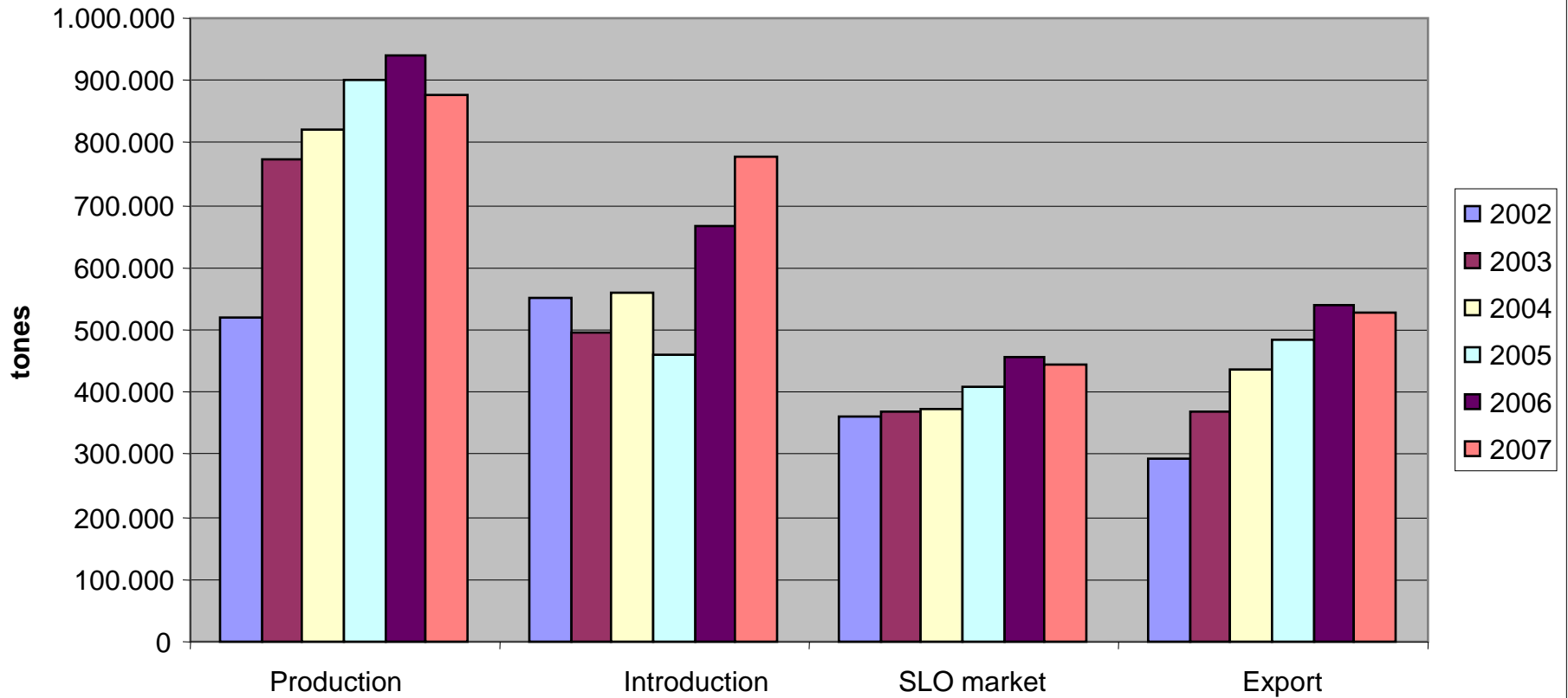
Intersectoral/interministerial communication



Dangerous chemicals - 2007



Comparison 2002 - 2007

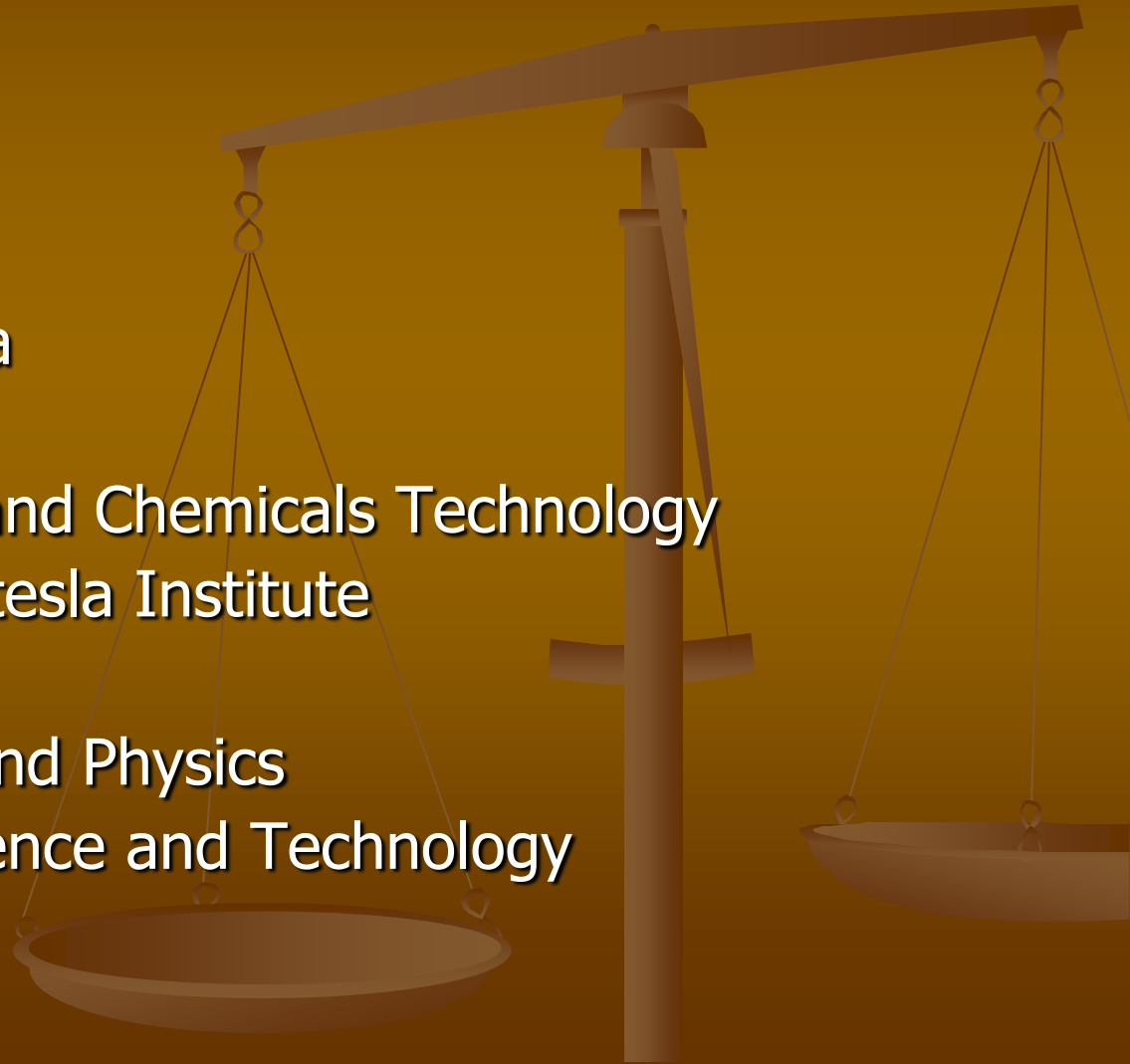


CORS – recent activities on nanotechnology

- participation in working groups at OECD and EU level,
- education for stakeholders (also through Twinning projects),
- public awareness raising:
 - brochures, leaflets, simposiums, articles...
 - <http://www.kemijskovaren.si/main.php>

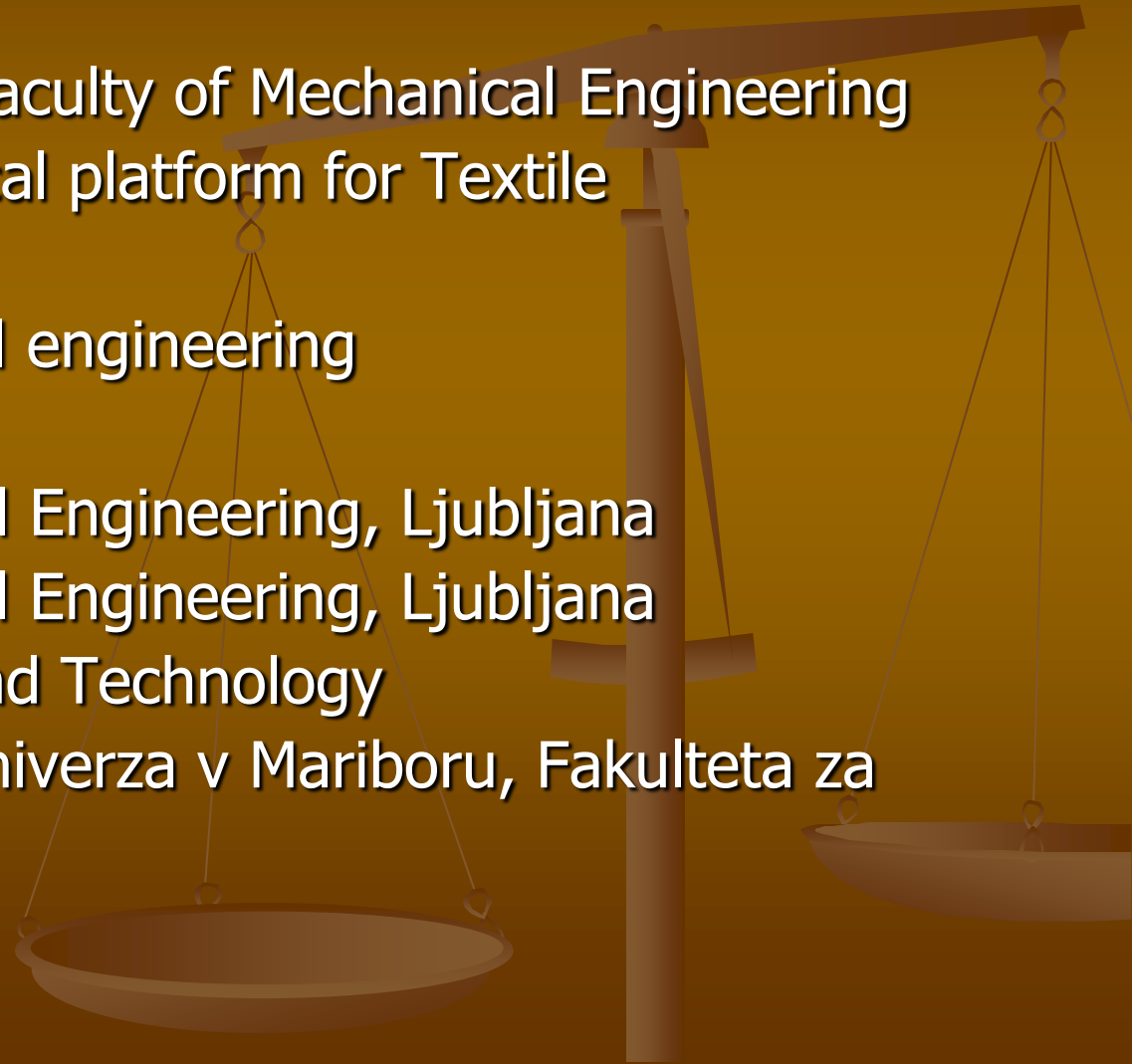
List of institutions dealing with research of nanomaterials - I

- Institut of Chemistry
- Jožef Stefan Institute
- Faculty of Pharmacy
- University Nova Gorica
- Helios
- Faculty of Chemistry and Chemicals Technology
- Kolektor Group, Nanotesla Institute
- Institute of Oncology
- Faculty of Mathematics and Physics
- Faculty of Natural Science and Technology
- Institut of Biology



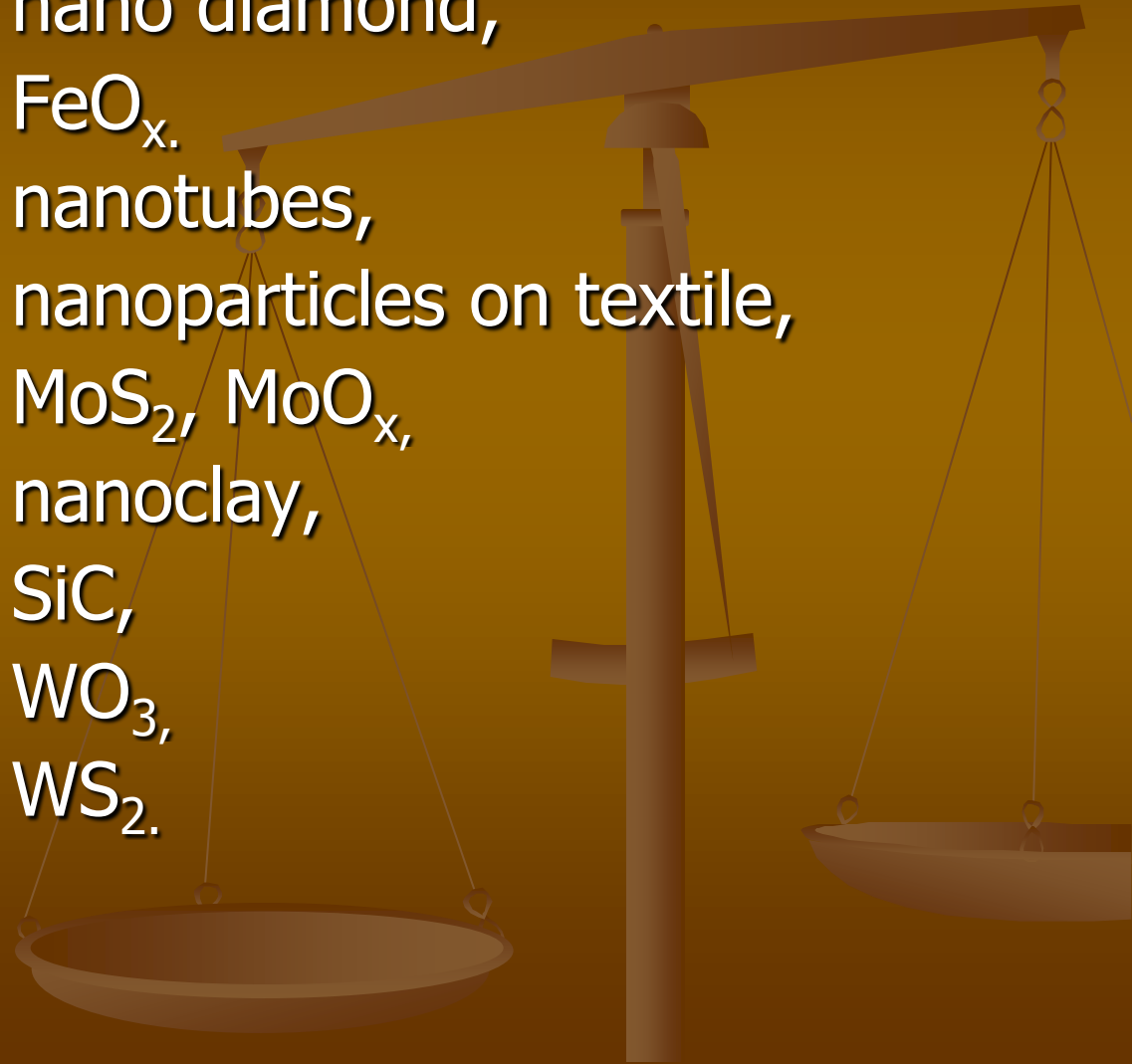
List of institutions dealing with research of nanomaterials - II

- Medical faculty
- University Maribor, Faculty of Mechanical Engineering
- IRSPIN – technological platform for Textile
- Lek
- Fakulteta of electrical engineering
- MIKROIKS
- Faculty of Mechanical Engineering, Ljubljana
- Faculty of Mechanical Engineering, Ljubljana
- Institute of Metals and Technology
- University Maribor Univerza v Mariboru, Fakulteta za naravoslovje



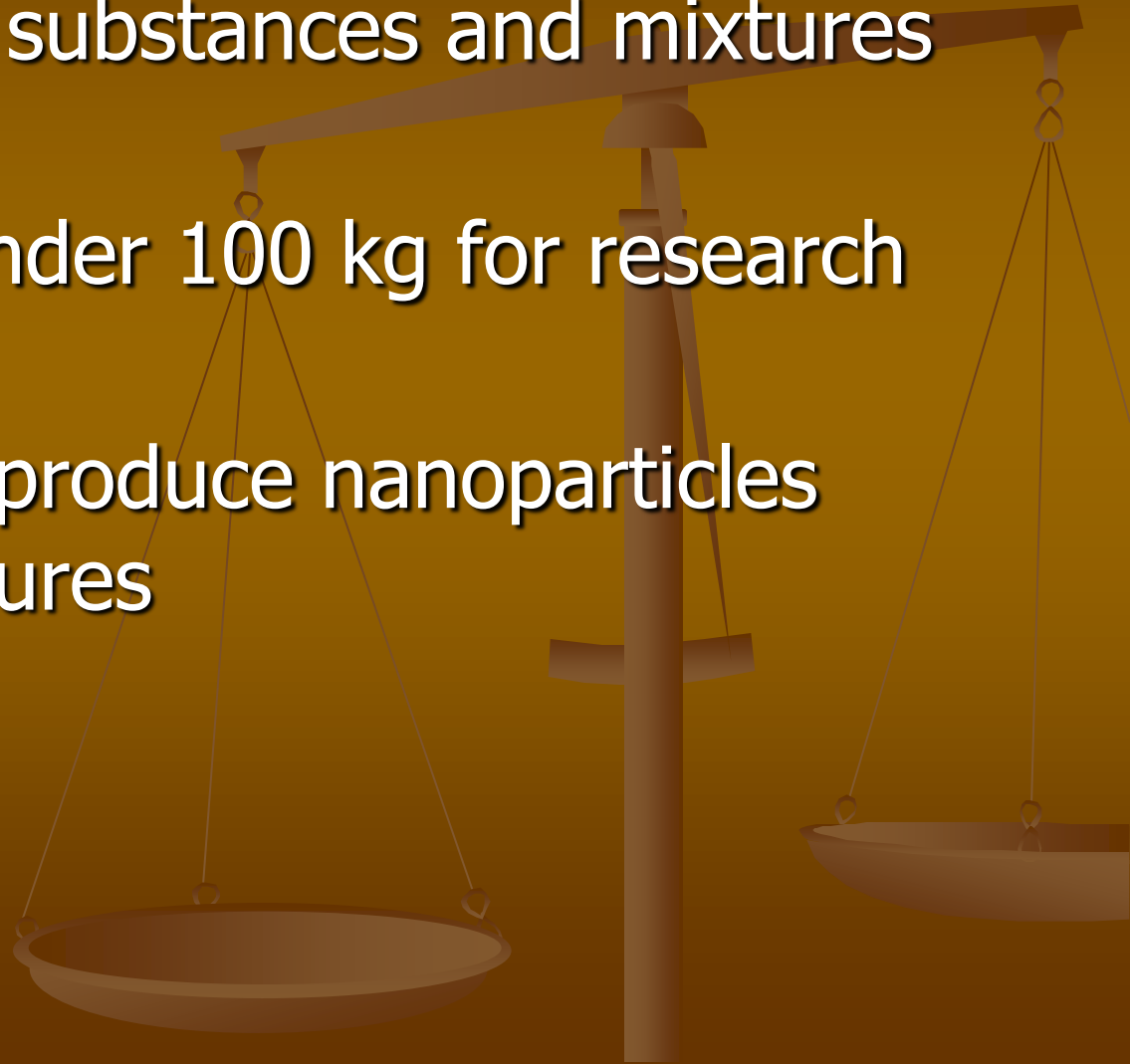
Examples of nanoparticles which are researched in Slovenia

- TiO_2 ,
- MnO_2 ,
- WO_3 ,
- SiC ,
- ZnO ,
- Fe_2O_3 ,
- CaCO_3 ,
- Ag , AgCl ,
- SiO_2 ,
- nano diamond,
- FeO_x ,
- nanotubes,
- nanoparticles on textile,
- MoS_2 , MoO_x ,
- nanoclay,
- SiC ,
- WO_3 ,
- WS_2 .



Production/placing on the market in the Slovenia

- only dangerous substances and mixtures (no articles)
- exemptions: under 100 kg for research purposes
- companies use/produce nanoparticles alone or in mixtures



ISK



Kemikalije na trgu

Registrirane
pravne osebe

Kemično orožje



Spletni naslovi

Seznam kemikalij na trgu

Sporočilo o kemikaliji Letna poročila Kemikalije Šifranti

Sporočilo o kemikaliji

Status

-
- Aktiven
-
-
- Začasen
-
-
- Neaktiven
-
-
- Verzija

Sporočilo

Spor. št. : [] - [] - []

Neizdano obvestilo

Trg. ime : []

Nepopolno spor.

Izprazni

Vrsta kemikalije

-
- Biocid nerazvrščen
-
-
- Biocid
-
-
- Splošna kemikalija
-
-
- Fitofarmacevtska sredstva

Zavezanec

Matična št. : []

Naziv : []

Kemikalija

Ozn. po NCT : [] [] []

Razvrstitev : [] [] []

Črk. znaki : [] [] [] R stavki : [] [] []

Snov

CAS : [] [] []

EC : [] [] []

R st. : [] [] []

	S	Sporočilna št.	Trgovsko ime	Vrsta	Oblika	P/V	Področje uporabe	Ime zavezanca
▶	N	000016-00-01	FENDONA 6SC	B	P	V	IO	MAGNETIK d.o.o.
	A	000016-01-01	FENDONA 6SC	B	P	V	IO	MAGNETIK d.o.o.
	A	000020-00-01	DERMATAN G50	K	P	V	IO	IUV d.d.
	N	000021-00-01	DESMODUR RN	K	P	V	IO	MITOL d.d., Sežana
	A	000021-01-01	DESMODUR RN	K	P	V		BELINKA KEMOSTIK, d.o.o.
	N	000022-00-01	TRISCABOL DG	K	P	V	KS	KMETIJSTVO VIPAVA d.d.
	N	000033-00-01	ENTEK CU-56	K	P	V	IO	ISKRAEMECO d.d.
	A	000033-01-01	ENTEK CU-56	K	P	P	IO	INTEREUROPA d.d.
	A	000034-00-01	BERLURAN-VERDÜNNER	K	P	V	IO	CARRERA OPTYL d.o.o.
	N	000035-00-01	FENSTERBAU SILIKON TRANSPARENT	K	P	V	IO	WÜERTH d.o.o.
	A	000057-00-01	P 87060 PEHAPOL BINDEMITEMEL NEU	K	P	V	IO	CARRERA OPTYL d.o.o.
	A	000072-00-02	STOLLUX G 2117 SL	K	P	V	IO	ŠPICA d.o.o.
	A	000092-00-01	SPECFLEX NE 113 ISOCYANATE	K	P	V	IO	POLYLINE d.o.o.
	A	000092-01-01	SPECFLEX NE 113 ISOCYANATE	K	P	V		PENAPLAST d.o.o.
	A	000094-00-02	ANFÄRBE MITTEL	K	P	V	IO	ŠPICA d.o.o.
	A	000096-00-01	PROXEL TN	B	P	V	IO	JUB d.o.o.
	A	000102-00-01	ISURANE 87	K	P	V	IO	SATECO Naklo d.o.o.
	A	000102-01-01	ISURANE 87	K	P	V	IO	MANIMO d.o.o.

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Išči

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Podrobnosti

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Seznam k...

Uradni list ...

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ponedeljek
8.6.2009

ISK



Kemikalije na trgu

Registrirane
pravne osebe

Kemično orožje



Spletni naslovi

Registrirane pravne osebe

Pravna oseba Šifrant

Status

- Aktiven
 Pogojno aktiven
 Začasen
 Neaktiven
 Zavržen

Naziv:

Reg. št.:

Mat. št.:

Področje dela

- Proizvodnja Promet
 Promet na debelo Sporočanje
 Promet na drobno Strateško blago
 Uporabnik Skladiščenje
 Ostalo

S	Reg.št.	Naziv	Ulica	Pošta	Podr. dela	Matična št.	Pog.vpis	Dat. vpisa
A	0660-00	A & D, d.o.o.	Glavni trg 23	1241 Kamnik	D,P,S,T	5315433000		7.11.2000
N	1262-03	A MI GD d.o.o.	Grič, Cesta VII/11	1310 Ribnica	M,T	5626013000		27.1.2003
B	0015	A TEHNA d.o.o. Kapele	Vrhnje 53	8258 Kapele	T	5472555000		9.8.2000
A	2184-09	ABC MAZIVA, d.o.o.	BRAVNIČARJEVA U	1000 Ljubljana	D,S,T	3441369000		2.2.2009
A	0834-01	AC-INTERCAR D.O.O.	Baragova ulica 5	1000 Ljubljana	T	5670209000		2.11.2001
N	1320-03	ACIS AGENTURA d.o.o.	Dolenjska cesta 11	1000 Ljubljana	T	1572270000		7.3.2003
A	2140-08	ACK d.d.	KOPER, PRISTANIŠ	6000 Koper	L	5003873000		30.9.2008
A	0833-01	AC-KONIM D.O.O.	Baragova 5	1000 Ljubljana	T	5671493000		28.9.2001
A	0902-02	A-CLEAN d.o.o.	Koprska ulica 106 g	1000 Ljubljana	T	1446738000		23.1.2002
A	0819-01	AC-MOBIL d.o.o.	Baragova 9	1000 Ljubljana	T	5662885000		15.11.2001
A	1980-07	A-COSMOS, d.d.	Celovška cesta 182	1000 Ljubljana	D,M,T	5400210000		31.8.2007
A	0334-00	ACRONI, d.o.o.	Cesta Borisa Kidriča	4270 Jesenice	D,S,T,U	5688418000		31.8.2000
A	1040-01	ACTINIA d.o.o.	Zadobrovska cesta 6	1260 Ljubljana - Polje	D,S,T	5596386000		10.12.2001
A	2220-09	AD d.o.o.	Obrtniška ulica 30	6000 Koper	S	5829194001		23.4.2009
N	0535-00	AD d.o.o.	Obrtniška ulica 30	6000 Koper	O	5829194000	31.5.2001	11.10.2000
A	0003-00	ADAK d.o.o.	Razgledna pot 3/a	4270 Jesenice	D,M,S,T	5864577000		4.8.2000
A	1393-03	ADER d.o.o.	Savska 4	1230 Domžale	T	5305373000		13.10.2003
A	0503-00	ADHEZIV, d.o.o.	Primož pri Šentjurju 2	3230 Šentjur	D,M,P,S,T	5393981000		18.9.2000
A	0061-00	ADK d.o.o.	Miklavška cesta 59	2311 Hoče	S,U	5347254000		10.8.2000
A	0562-00	ADRIA AIRWAYS d.d.	Kuzmičeva 7	1000 Ljubljana	D,S,T,U	5156505000		2.10.2000
A	0429-00	ADRIA MOBIL d.o.o.	Belokranjska cesta	8000 Novo mesto	S,U	5479541000		8.9.2000
B	0618	ADRIA PLAST D.O.O.	Obala 114	6320 Portorož	O	5805627000	1.1.2001	18.9.2000
A	1623-05	ADRIA SERVICE, d.o.o.	Zore Perello Godina	6000 Koper	T	5327334000		22.3.2005
A	1956-07	ADRIA TERMINALI d.o.o.	Vojkovo nabrežje 38	6000 Koper	D,L,T	2272598000		7.6.2007
A	1498-04	ADRIA TRADING d.o.o.	Vičava 47	2250 Ptuj	T	5771072000		6.4.2004
A	0062-00	AEB D.O.O. SEŽANA	Partizanska cesta 50	6210 Sežana	T	5568692000		10.8.2000

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Išči



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Podrobnosti



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Popravi



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RAZNO

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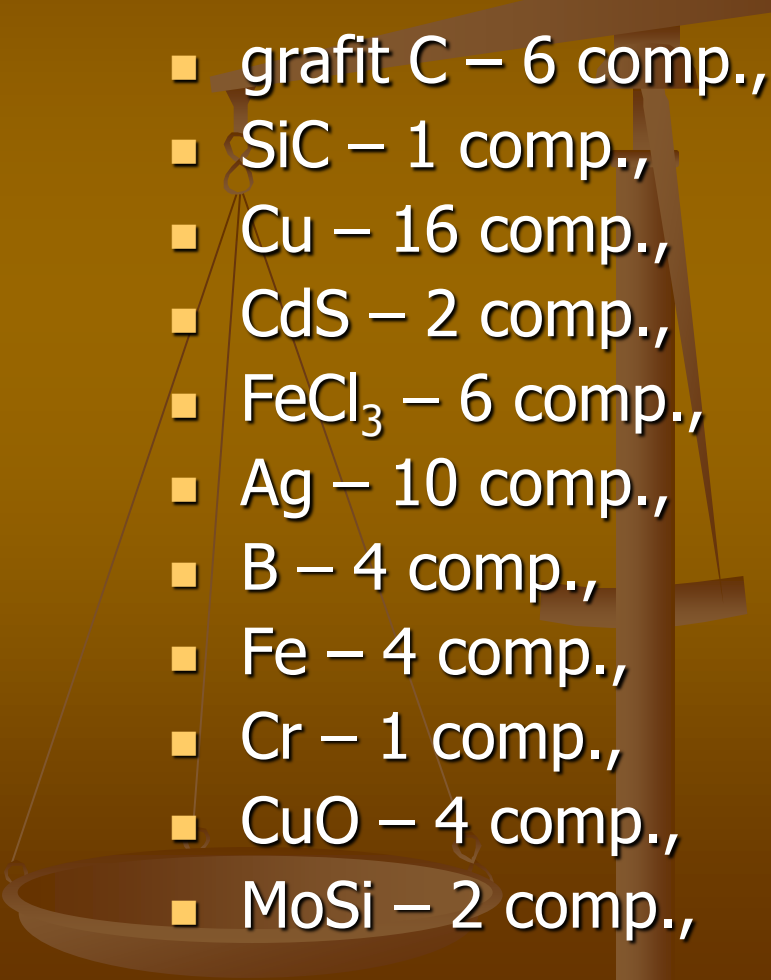
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Substances and companies producing/using them

(23 substances, 161 companies)

- 
- Zn – 44 comp.,
 - Al – 50 comp.,
 - TiO₂ – 29 comp.,
 - Fe₂O₃ – 9 comp.,
 - Saje – 19 comp.,
 - ZnO – 76 comp.,
 - SiO₂ – 32 comp.,
 - Fe.H₂SO₄ – 12 comp.,
 - Si – 5 comp.,
 - Al₂O₃ – 19 comp.,
 - MoS₂ – 1 comp.,
 - WO_x – 1 comp.,
 - grafit C – 6 comp.,
 - SiC – 1 comp.,
 - Cu – 16 comp.,
 - CdS – 2 comp.,
 - FeCl₃ – 6 comp.,
 - Ag – 10 comp.,
 - B – 4 comp.,
 - Fe – 4 comp.,
 - Cr – 1 comp.,
 - CuO – 4 comp.,
 - MoSi – 2 comp.,

Current legal framework

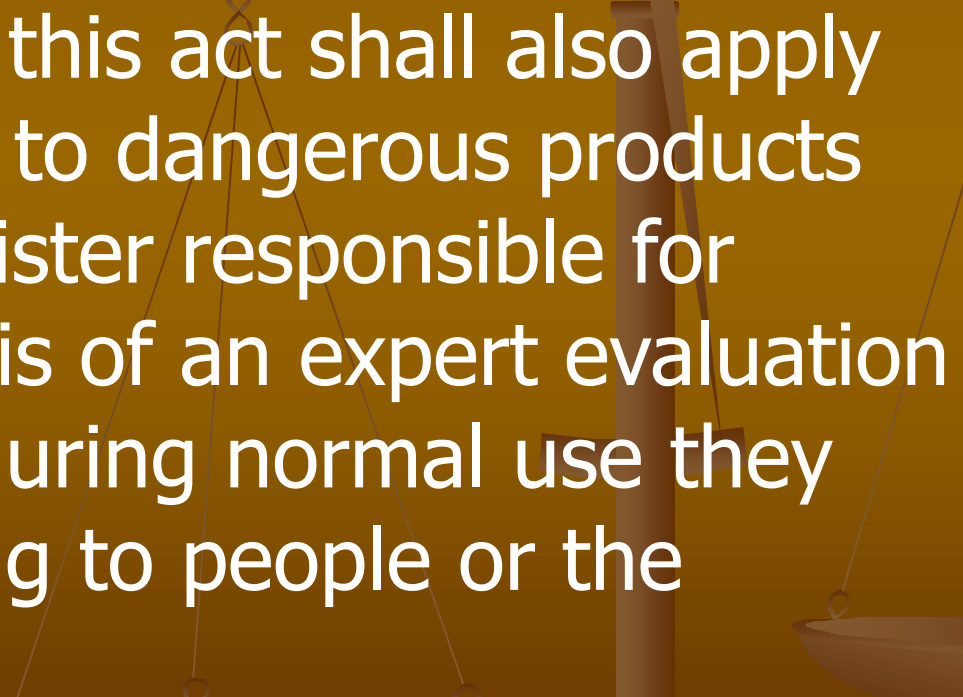
- EU legislation:
 - REACH regulation
 - GHS regulation
 - other sectoral legislation
- Law on chemicals



Article 4

(dangerous products)

The provisions of this act shall also apply mutatis mutandis to dangerous products for which the Minister responsible for health on the basis of an expert evaluation determines that during normal use they could be damaging to people or the environment.



Article 6

(liability of legal and natural persons)

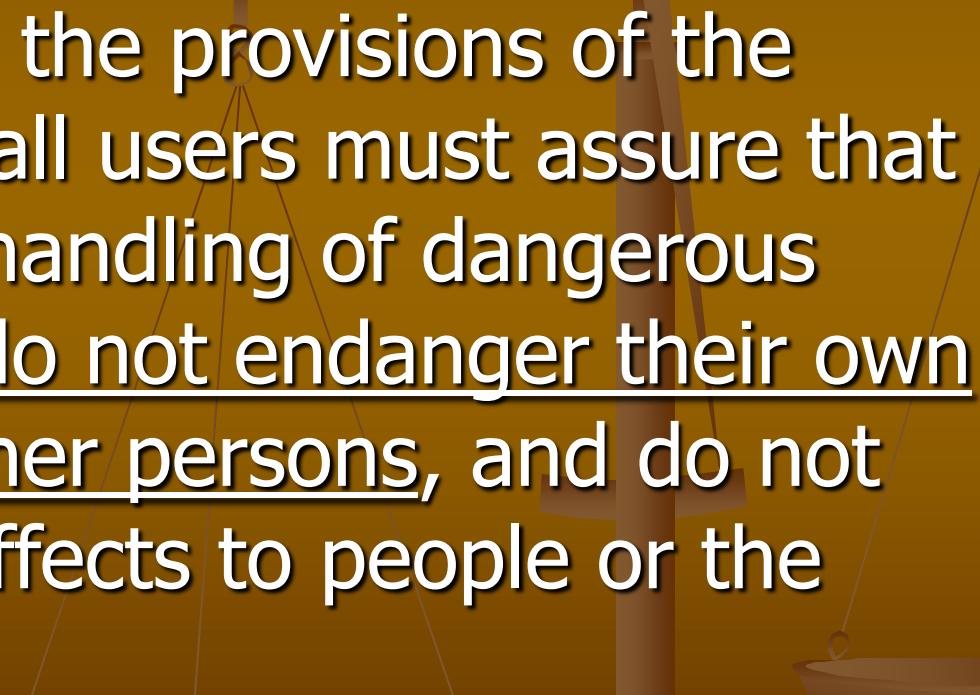
Legal and natural persons that produce dangerous chemicals or place them on the market must provide instructions for safe use of the dangerous chemical and for the disposal of wastes in accordance with regulations on wastes, and must accept liability for any damage that may arise during production or trade.

On purchasing a dangerous chemical all users must be warned about the dangerous properties of the chemicals, and appropriate explanations regarding the proper use, measures on protection of health and the environment, and on treatment of waste of the chemicals shall be available to them on request. The scope, content and form of the information to be provided shall be set out by the Minister.

Article 7

(liability of users)

Notwithstanding the provisions of the previous Article all users must assure that during use and handling of dangerous chemicals they do not endanger their own life or that of other persons, and do not cause adverse effects to people or the environment.



Article 42

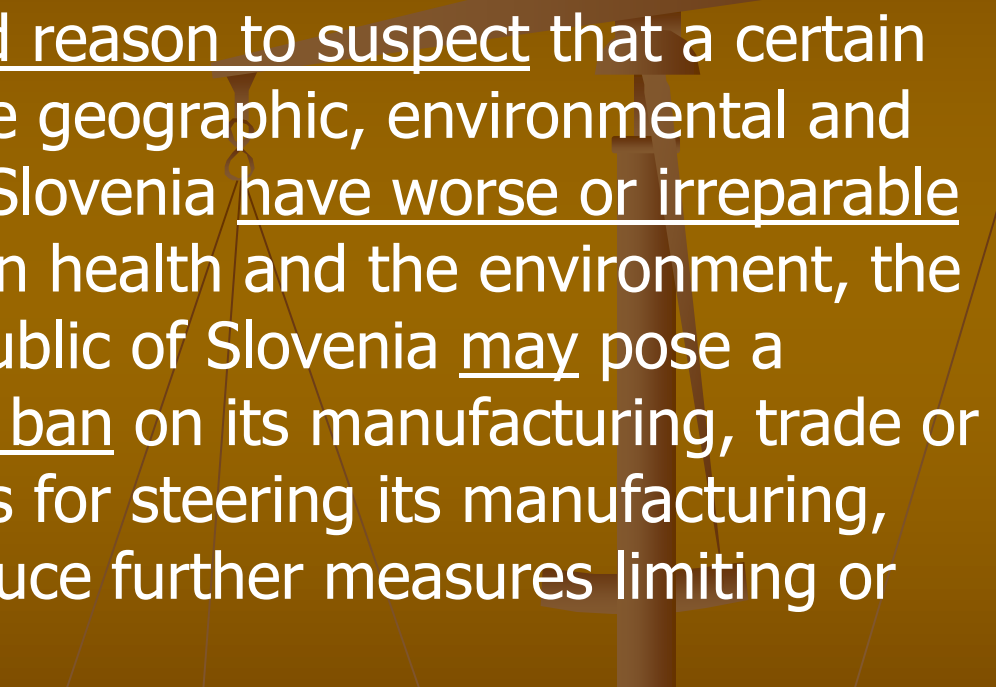
(less dangerous alternatives)

Legal and natural persons producing, storage or placing dangerous chemicals on the market must ensure such conditions so as to prevent or reduce the risk for people and the environment.

Legal and natural persons producing or placing dangerous chemicals on the market must ensure replacement of dangerous chemicals with their less dangerous alternatives.

Article 50 (interim measures)

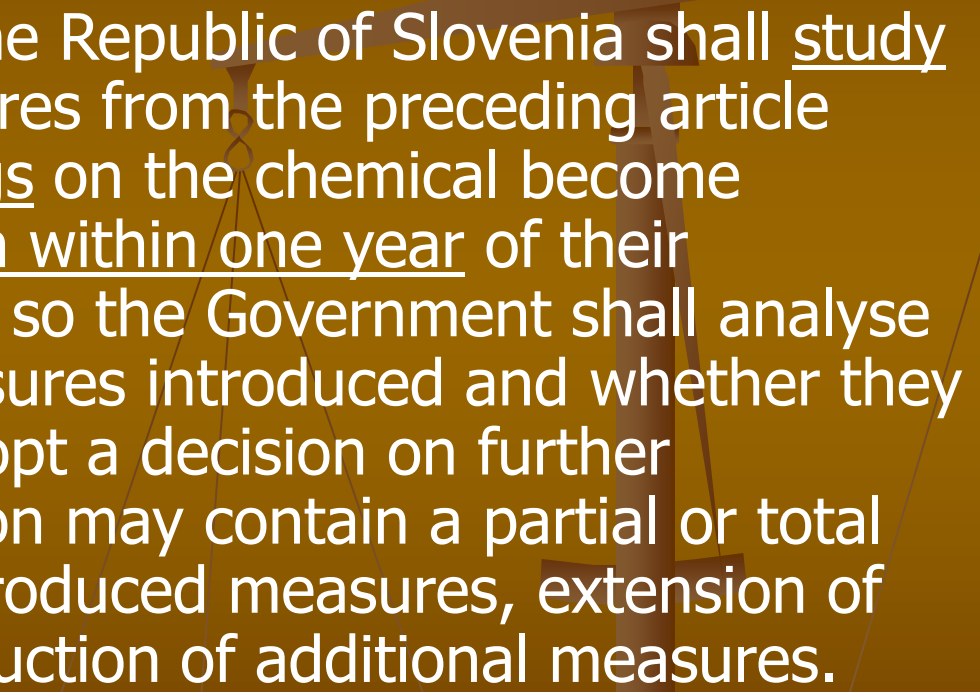
When there is a justified reason to suspect that a certain chemical may due to the geographic, environmental and health characteristic of Slovenia have worse or irreparable consequences for human health and the environment, the Government of the Republic of Slovenia may pose a temporary restriction or ban on its manufacturing, trade or use, introduce measures for steering its manufacturing, trade or use, and introduce further measures limiting or preventing the



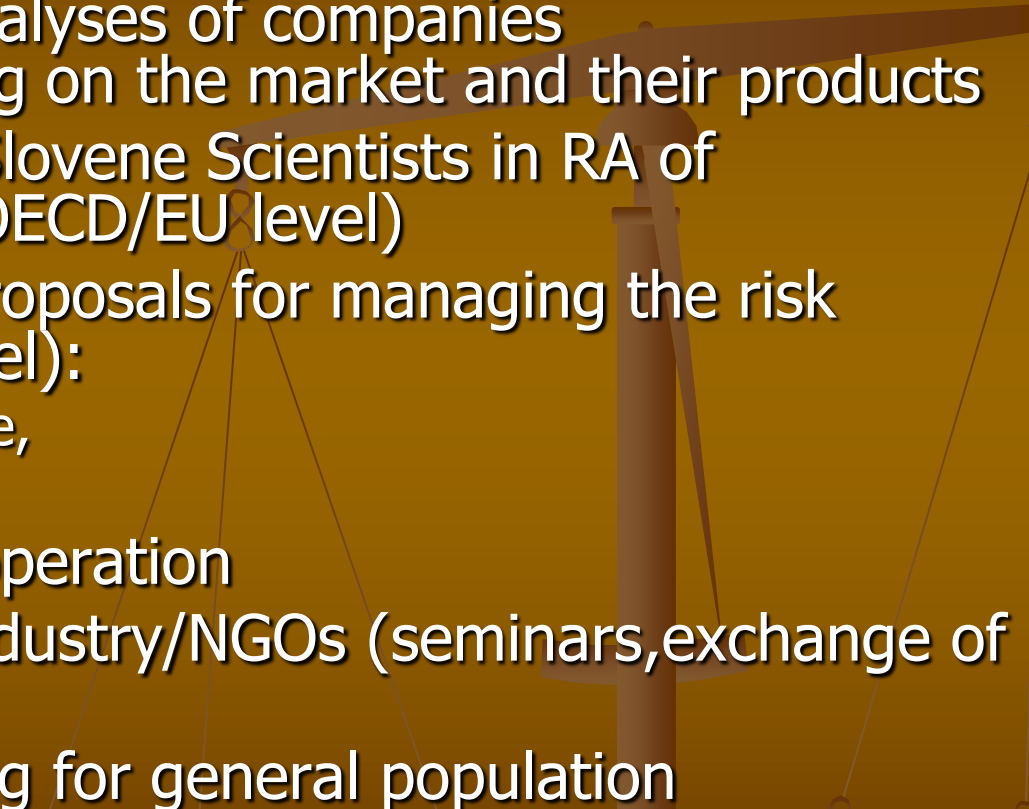
Article 51

(interim measures monitoring)

The Government of the Republic of Slovenia shall study the introduced measures from the preceding article whenever new findings on the chemical become available no later than within one year of their introduction. In doing so the Government shall analyse the effect of the measures introduced and whether they were justified and adopt a decision on further measures. The decision may contain a partial or total termination of the introduced measures, extension of their validity or introduction of additional measures.



Activities in the future

- More detailed analyses of companies production/placing on the market and their products
 - Participation of Slovene Scientists in RA of nanomaterials (OECD/EU level)
 - Preparation of proposals for managing the risk (EU/national level):
 - for working place,
 - for consumers.
 - Intersectoral cooperation
 - Involvement of industry/NGOs (seminars, exchange of views)
 - Awareness raising for general population
- 

Additional legislation needed?

- active participation of EU/OECD level
 - legislative
 - risk assessment
- special national legislation might be needed

**CAUTIOUS APPROACH TO THE
DEVELOPMENT OF NANOTECHNOLOGIES**





REPUBLIKA SLOVENIJA
MINISTRSTVO ZA ZDRAVJE
URAD RS ZA KEMIKALIJE

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