



**BŪVNICĪBA KĀ VIDES ILGTSPĒJĪGAS
ATTĪSTĪBAS UN SAGLABĀŠANAS
NOSACĪJUMS**

**BUILDING INDUSTRY
AS A CONDITION FOR SUSTAINABILITY OF
ENVIROMENT**

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We also want to live in an orderly environment





Rio de Janeiro, 1992

At the United Nations Conference
SUSTAINABLE DEVELOPMENT was
announced as the way of social-economic
questions balanced solution and environment
protection.

Mexico, Cancun, 29.nov.-10.dec. 2010

UN climate change conference
Member States have agreed to fight global
warming and developing countries to provide
funds for a compromise in the fight against
climate change
Agreed on a new document to combat global
warming, which also includes Green Climate
Fund for developing countries, where a
significant proportion of the funding will go to
fight climate change





Society

Economy

Sustainable
Development

Environment

Kas notiek Latvijā?

What happens in Latvian?

Latvija uzņēmusies pildīt starptautiskās saistības globālo klimata pārmaiņu novēršanai, parakstot **ANO Vispārējo konvenciju par klimata pārmaiņām** (Konvencija) 1992.gadā Riodežaneiro un ratificējot to LR Saeimā 1995.gadā.

Konvencijas mērķis - sasniegt siltumnīcefekta gāzu (SEG) koncentrācijas stabilizāciju atmosfērā tādā līmenī, kas novērstu bīstamu antropogēnu iejaukšanos klimata sistēmā.

Starptautiskie līgumi klimata pārmaiņu samazināšanai

International agreements on climate change reduction

2008.gada 23.janvārī Eiropas Komisija publicēja **Klimata enerģētikas paketi un ar to saistītos dokumentus**

. Paketē iekļauti šādi normatīvie akti:

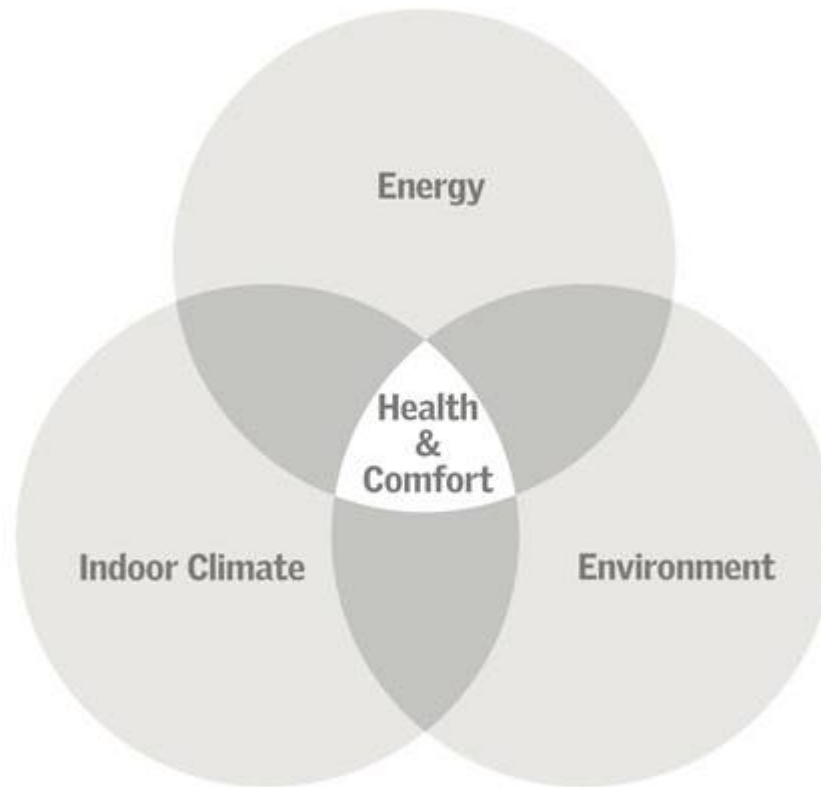
1. Emisijas kvotu tirdzniecības sistēmas (ETS) direktīvas pārskats;
2. Lēmums emisiju samazināšanai nozarēs, ko neaptver ETS;
3. Atjaunojamo energoresursu direktīvas projekts;
4. Direktīvas projekts oglekļa uztveršanai un noglabāšanai un ietekmes novērtējums

Latvijas valsts politikas dokumenti:

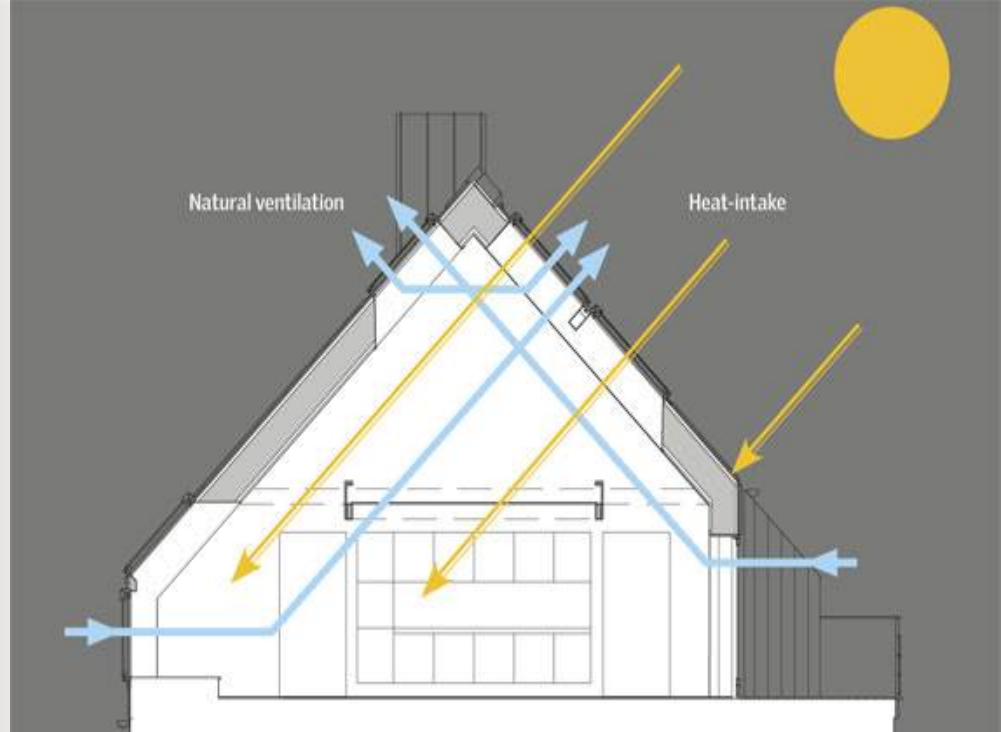
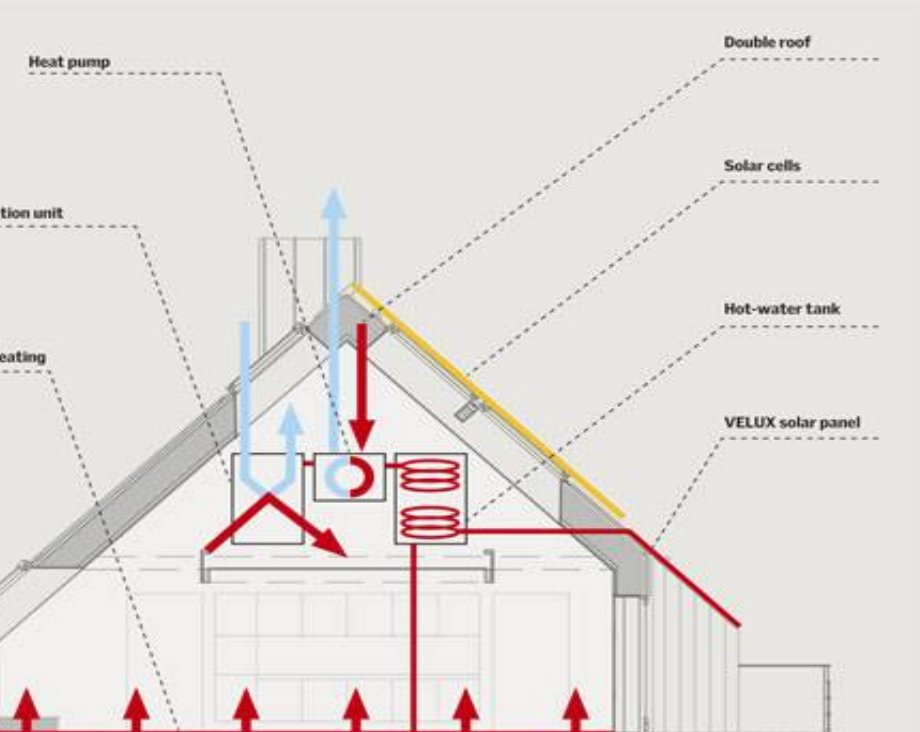
Latvian national policy documents:

- **Latvijas Nacionālais Attīstības Plāns 2007-2013 gadam.** Ilgtspējīga attīstība definēta kā sociālo, vides un ekonomisko faktoru sabalansēšana;
- **Būvniecības nozares pamatnostādnes 2011-2015 gadam:**
 - *“pamatnostādņu galvenais uzdevums ir noteikt politiku ilgtspējīgas un konkurētspējīgas būvniecības nozares attīstībai”;*
- **Būvniecības nozares politikas pamatprincipi.** Viens no 6 principiem ir *videi draudzīgas, konkurētspējīgas un ilgtspējīgas būvniecības princips;*
- **Būvniecības likuma projekts.** Viens no 4 pamatprincipiem ir *ilgtspējīgas būvniecības princips;*

- **Ieteikumi videi draudzīgas būvniecības veicināšanai, apstiprināti LR MK, 22.12.2008.;**
- **Videi draudzīga iepirkuma rokasgrāmata;**
- **Eiropas Parlamenta un Padomes direktīva 2008/98/EK 19.11.2008., Par atkritumiem un par dažu direktīvu atcelšanu;**
- **Eiropas Parlamenta un Padomes direktīva 2010/31/EK 19.05.2010., Par ēku energoefektivitāti;**
- **Energopārvaldības sistēma EnPs EN ISO 16001, no 2011.gada;**
- **Nodibināta jauna biedrība - “Latvijas ilgtspējīgas būvniecības padome”.**



In the EU today, we spend 90 % of our time indoors, in buildings that consume over 40 % of the total energy consumption. Up to 30 % of the building stock does not contribute to nor provide a healthy indoor climate.



Energy consumption targets.
Low-energy standards.
Optimised design.
Highest energy marking.
Intelligent energy performance control
Documentation of embodied energy.
Energy self-sufficiency.
Maximise daylight availability.
High daylight levels.
Strategic window positions.
Healthy indoor climate.
Automatic control of natural ventilation.
Stack effect/chimney effect.
Sound materials.



Būvniecības produkcija tūkst. Ls (faktiskajās cenās)

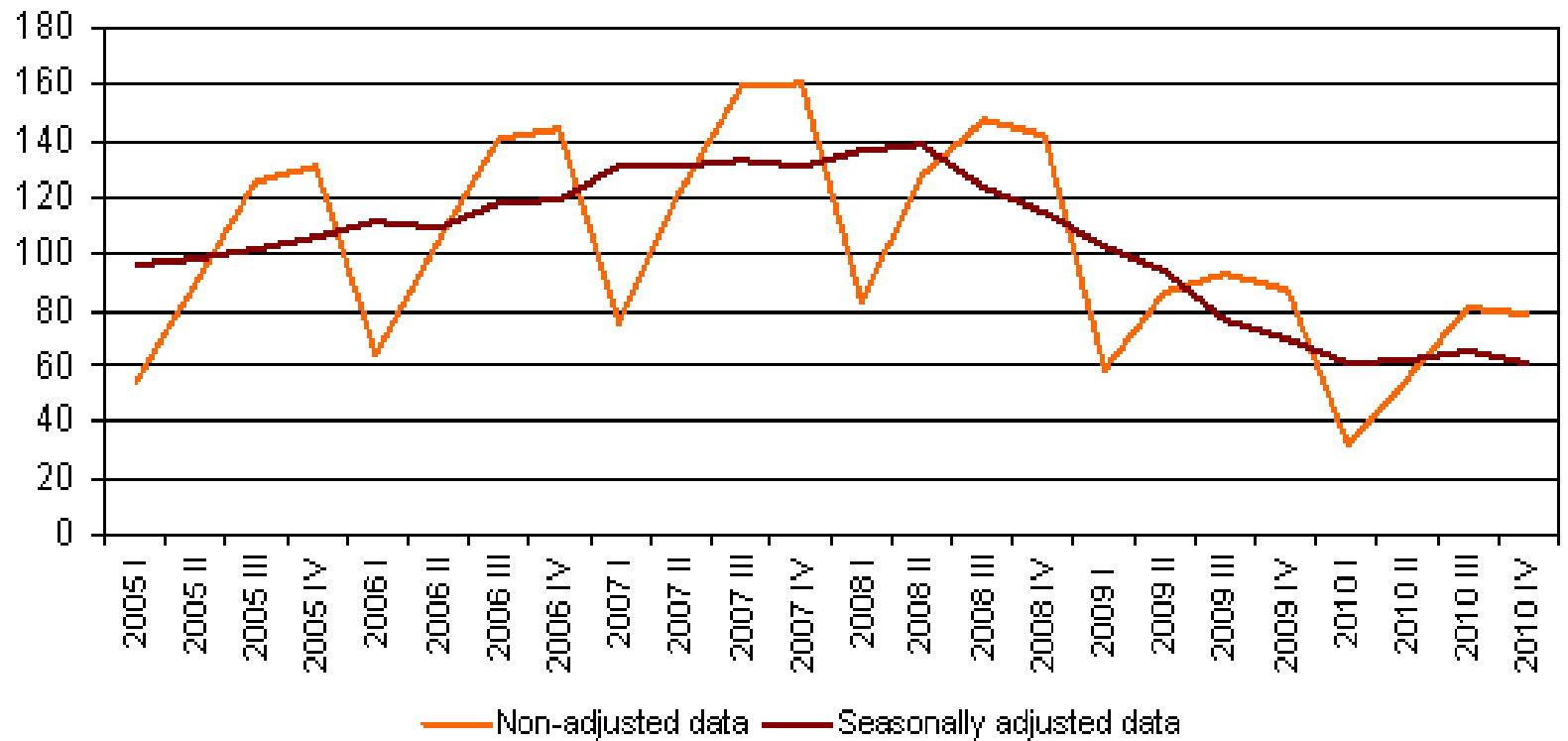
Construction volume Thsd lats (at current prices)

Construction volume Thsd lats (at current prices)					
Year	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
2008	300141	460419	532716	475199	1768475
2009	203514	277839	288112	249457	1018922
2010	107145	173991	247502	228904	757442

Avots: LR CSP dati

Uzbūvētās dzīvojamās ēkas pa ceturkšņiem, tūkst.m²

Completed residential buildings by quarter, thsd m ²					
Year	1st quarter	2nd quarter	3rd quarter	4th quarter	Total
2008	258.9	235.0	336.0	323.3	1153.2
2009	200.0	228.6	118.0	125.4	672.0
2010	102.1	121.9	83.6	74.2	381.8
..investors - private persons					
2008	112.2	90.6	109.5	166.7	479.0
2009	123.0	118.0	95.1	90.9	427.0
2010	89.5	91.3	75.5	64.9	321.2

Būvniecības produkcijas apjoma indekss (2005 = 100)**Construction volume index (2005 = 100)**

Būvniecības produkcijas apjoma indekss

Construction production volume index

Construction production volume index				
	1st quarter	2nd quarter	3rd quarter	4th quarter
Changes over corresponding period of previous year (constant prices), unadjusted data, %				
2008	11.1	5.5	-7.4	-11.4
2009	-29.7	-32.4	-36.8	-38.5
2010	-43.4	-35.3	-13.1	-9.6
Changes over corresponding period of previous year (constant prices), working day adjusted data, %				
2008	11.1	5.5	-7.4	-11.4
2009	-29.7	-32.4	-36.8	-38.5
2010	-43.4	-35.3	-13.1	-9.6

Būvniecības produkcijas apjoms un tā pārmaiņas

Construction volume and its changes

	Total (at current prices, mln LVL)		2010 as % over 2009 (at constant prices, working day adjusted)	4 th quarter of 2010 as % over	
	2010	4 th quarter of 2010		3 rd quarter of 2010 (at constant prices, seasonally adjusted)	4 th quarter of 2009 (at constant prices, working day adjusted)
Total	757.5	228.9	-23.6	-5.5	-9.6
of which:					
Residential buildings	48.7	18.7	-29.8	9.0	2.3
Office buildings	36.5	7.7	-59.5	-21.5	-63.4
Wholesale and retail trade buildings	27.3	7.3	-5.5	-17.3	123.6
Production buildings and warehouses	41.2	13.4	6.4	77.0	56.4
Schools, universities and research institutions	44.6	11.4	9.3	1.6	3.0
Motorways, streets, roads, airfields, runways, railway lines	150.9	43.3	-1.4	9.5	10.0
Bridges and tunnels	67.6	15.1	-18.9	-14.0	-47.6
Mainpipelines, communication and power lines	74.2	27.5	-27.1	-3.6	12.4
Local pipelines and cable lines	29.5	11.1	-54.0	62.2	-21.7

Nefinanšu investīcijas faktiskajās cenās, milj. Ls
Non-financial investment (at current prices), mln lats

Non-financial investment (at current prices), mln lats				
	1st quarter	2nd quarter	3rd quarter	4th quarter
2008	545.9	672.7	744.9	864.6
2009	348.2	425.4	402.8	525.6
2010	171.5	267.0	384.9	-

Ārvalstu tiešās investīcijas, milj. Ls

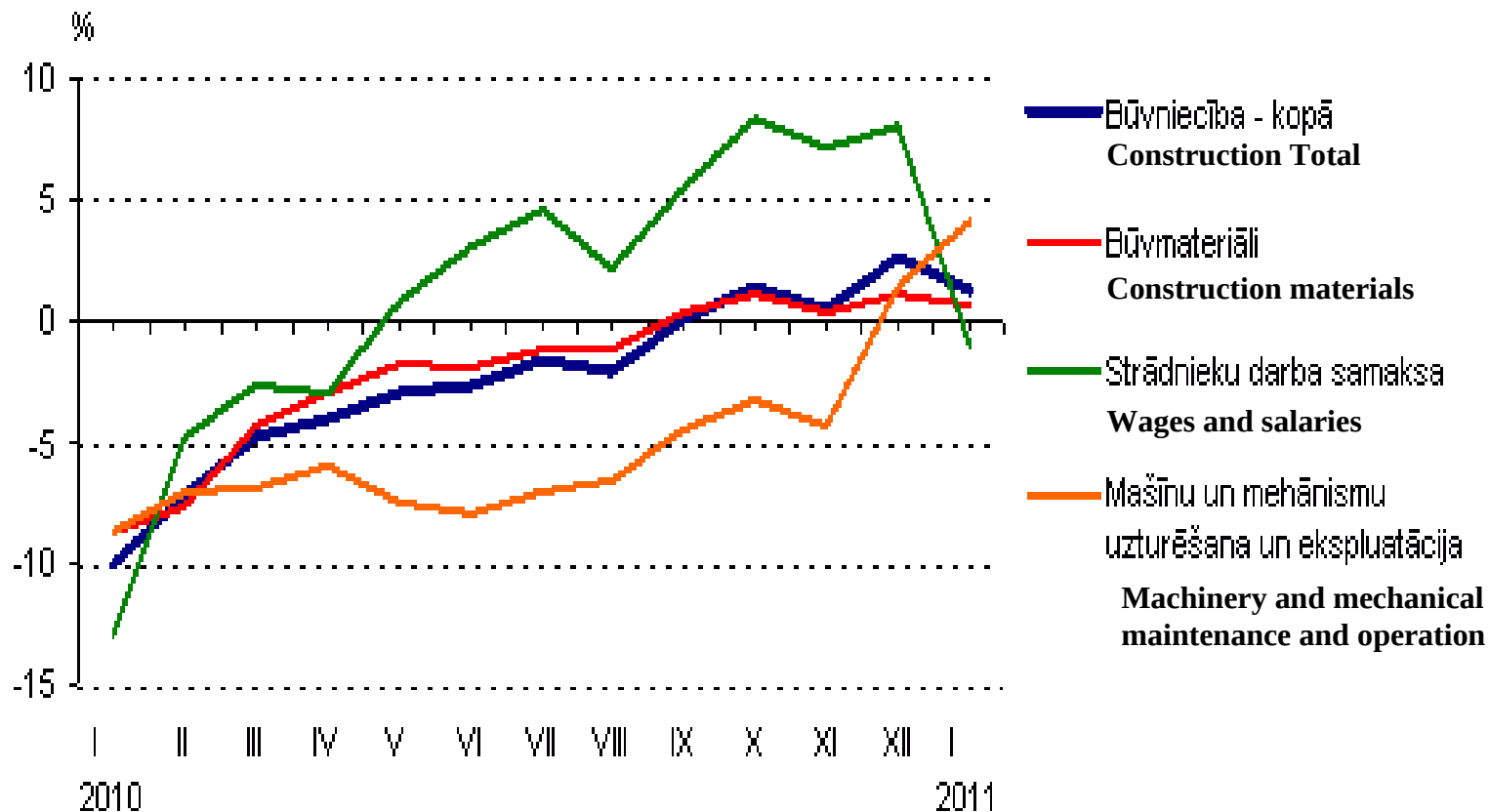
Foreign direct investment (mln lats)

6.tabula

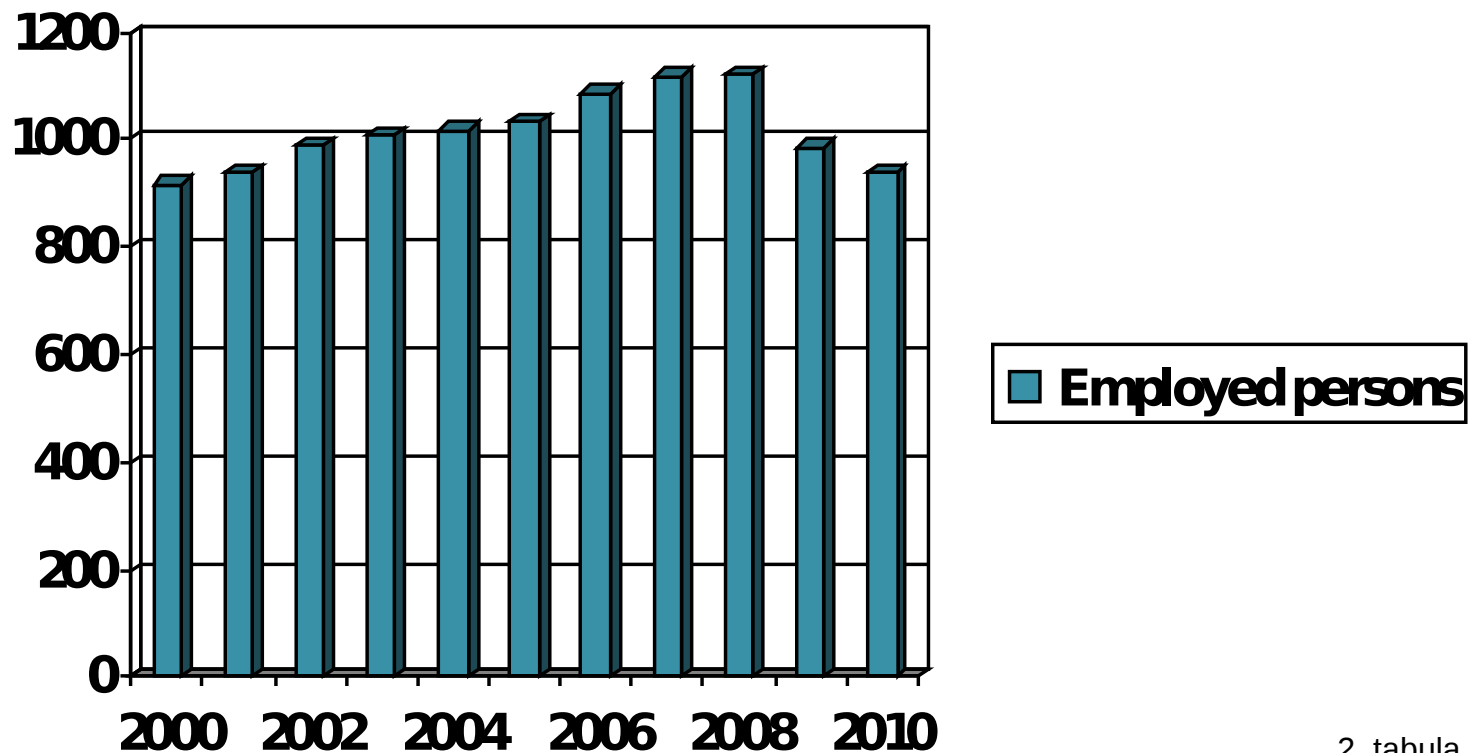
Foreign direct investment (mln lats)				
	1st quarter	2nd quarter	3rd quarter	4th quarter
Foreign direct investment (flows)				
2008	270.3	269.9	209.7	-143.5
2009	23.5	-114.2	106.8	31.5
2010	-72.7	44.0	119.7	-
Foreign direct investment stock				
2008	5545.5	5866.1	6000.5	5711.0
2009	5562.4	5536.5	5778.9	5673.4
2010	5865.9	5946.6	6116.0	-

Būvniecības izmaksas

Construction costs



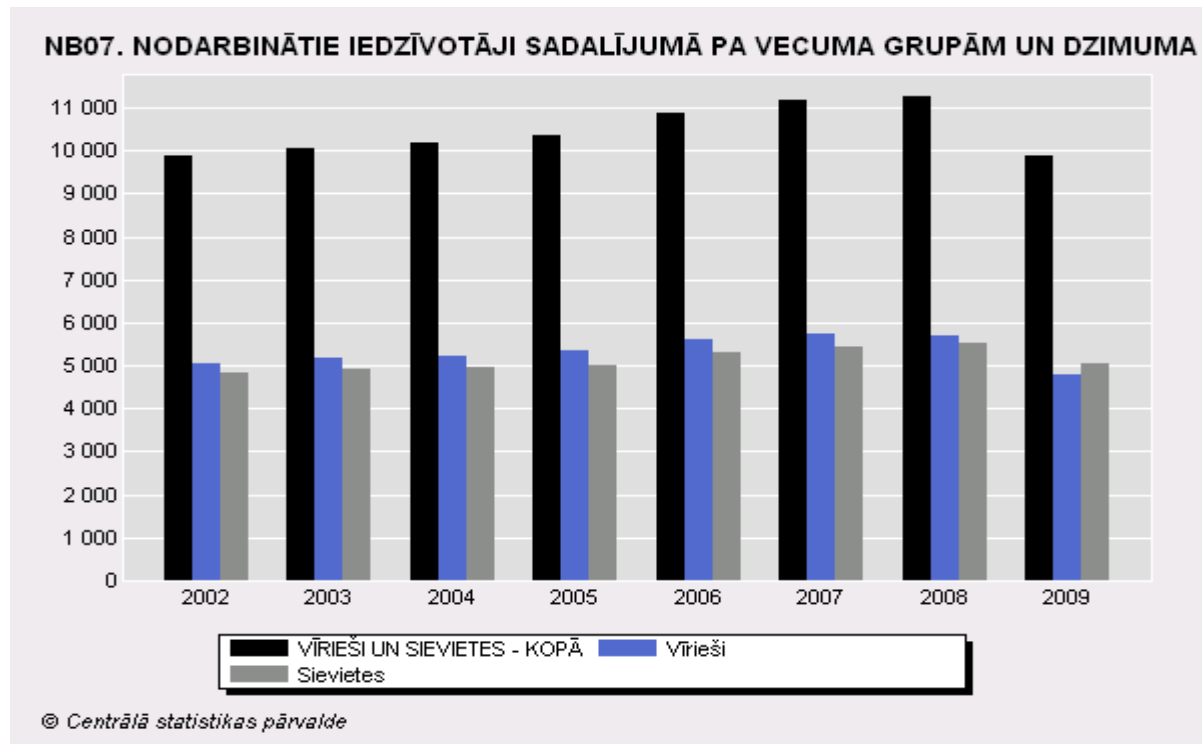
Nodarbināto iedzīvotāju skaits Latvijā Employed persons in Latvia



2. tabula

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Employed persons	918	938	989	1006	1017	1035	1087	1119	1124	986	940

Employed persons



1.tabula

NB07. NODARBINĀTIE IEDZĪVOTĀJI SADALĪJUMĀ PA VECUMA GRUPĀM UN DZIMUMA

	Skaitis (thsd.)							
	2002	2003	2004	2005	2006	2007	2008	2009
TOTAL								
Males and females - TOTAL	989.0	1006.9	1017.7	1035.9	1087.6	1119.0	1124.1	986.7
Males	504.6	516.6	521.8	534.1	559.2	573.5	571.5	480.3
Females	484.3	490.2	495.9	501.8	528.5	545.5	552.6	506.4

Nodarbināto iedzīvotāju skaits pēc dzimuma

Employed persons by sex

Employed persons by sex								
	Number (thsd)							
	15-74				15-64			
	..employed persons				..employed persons			
	1st quar ter	2nd quar ter	3rd quar ter	4th quar ter	1st quar ter	2nd quar ter	3rd quar ter	4th quar ter
2008								
Total	1137.8	1142.1	1132.5	1085.6	1091.5	1088.8	1081.9	1042.9
Males	581.5	581.3	576.8	549.0	555.9	553.6	553.5	526.2
Females	556.3	560.7	555.8	536.6	535.6	535.3	528.5	516.7
2009								
Total	1046.7	999.3	953.9	932.6	1002.5	957.4	933.2	910.5
Males	510.5	485.0	470.3	445.0	486.0	466.0	460.7	434.8
Females	536.2	514.3	483.6	487.6	516.4	491.4	472.5	475.7
2010								
Total	916.7	935.9	960.4	950.4	893.9	912.9	938.4	929.8
Males	432.4	448.9	467.2	468.4	420.8	439.2	459.1	459.6
Females	484.3	487.0	493.2	482.0	473.1	473.6	479.3	470.1

Būvorganizāciju saviem spēkiem veikto būvdarbu apjoms, tūkst. Latu
Value of own account construction, in thousands. lats

	Statistiska, faktiskās cenas				Prognoze 2011.g.	
	2003	2005	2008	2009	2003. g. cenās	2011. g. cenās
The total volume of construction work	500 352	778 684	1 704 114	921 596	537 573	801 643
Public sector	6 962	15 575	25 040	18 489	17 880	26 663
State property	5 564	14 218	24 792	15 803	13 788	20 561
Municipal property	1 398	1 357	239	2 686	4 092	6 102
Private sector	493 390	763 109	1 679 084	903 107	501 813	748 318
private	377 768	578 123	1 265 031	640 853	377 768	563 339
Foreign legal or natural person	16 731	31 444	97 821	44 206	16 731	24 950
mixed ownership without government capital participation	95 552	77 650	277 134	196 974	95 552	142 490
New construction	206 495	378 394	969 321	549 194	215 898	321 953
Performed repairs on the amount of total	229 948	400 291	734 794	372 402	310 325	462 766
Capital repairs and reconstruction	196 677	279 280	550 691	243 067	162 103	241 733

Construction Industry Forecast for Latvia

Relevance of model

Living conditions in EU in 2008.

	Persons per dwelling	Rooms per person	Rooms per dwelling	Households per dwelling
Denmark	2,2	2,1	4,8	1,079
Finland	2,4	1,8	3,6	0,950
Germany	2,4	1,8	4,5	0,723
Ireland	3,3	1,6	5,3	0,852
Italy	2,9	1,6	4,3	1,166
Latvia	2,38	0,98	2,22	0,952
Portugal	3,2	1,4	4,5	1,263
Spain	3,3	1,5	4,8	1,395
Sweden	2,1	n/d	4,3	0,885
United Kingdom	2,5	2	5,1	0,957

Construction market equilibrium

Orders for housing
replenishment according to
amortization (3)

Long time process
time delay

Housing
amortization (2)

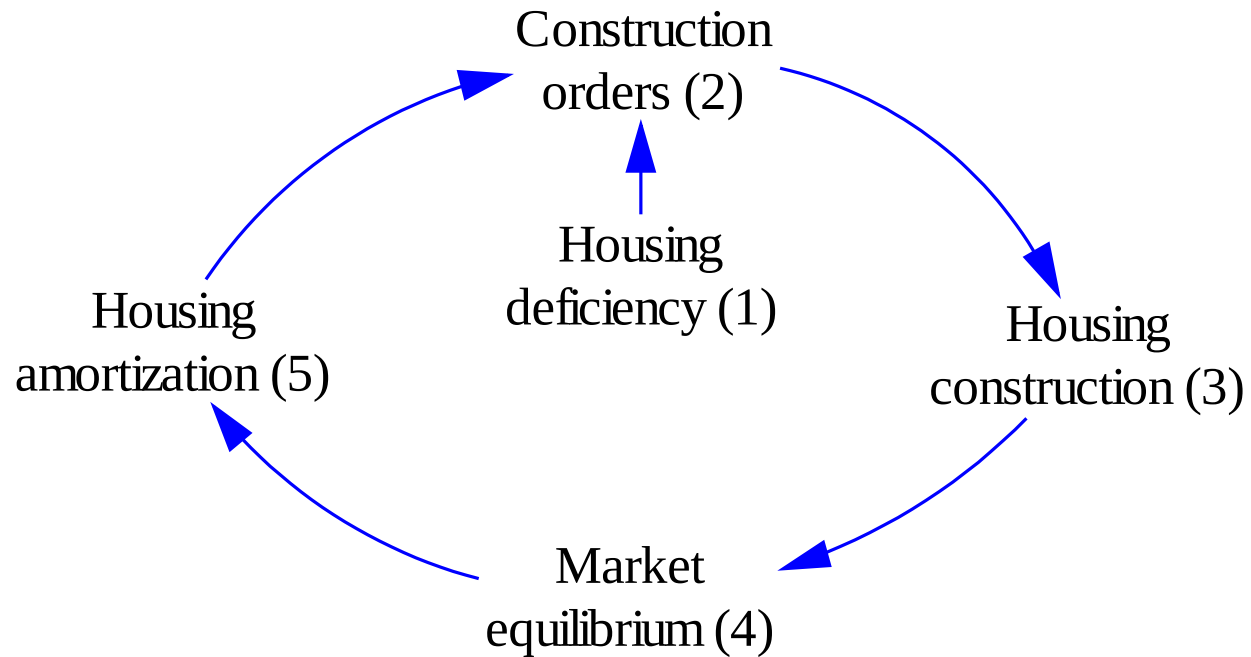
Housing
construction (4)

Short

Market
equilibrium (1)

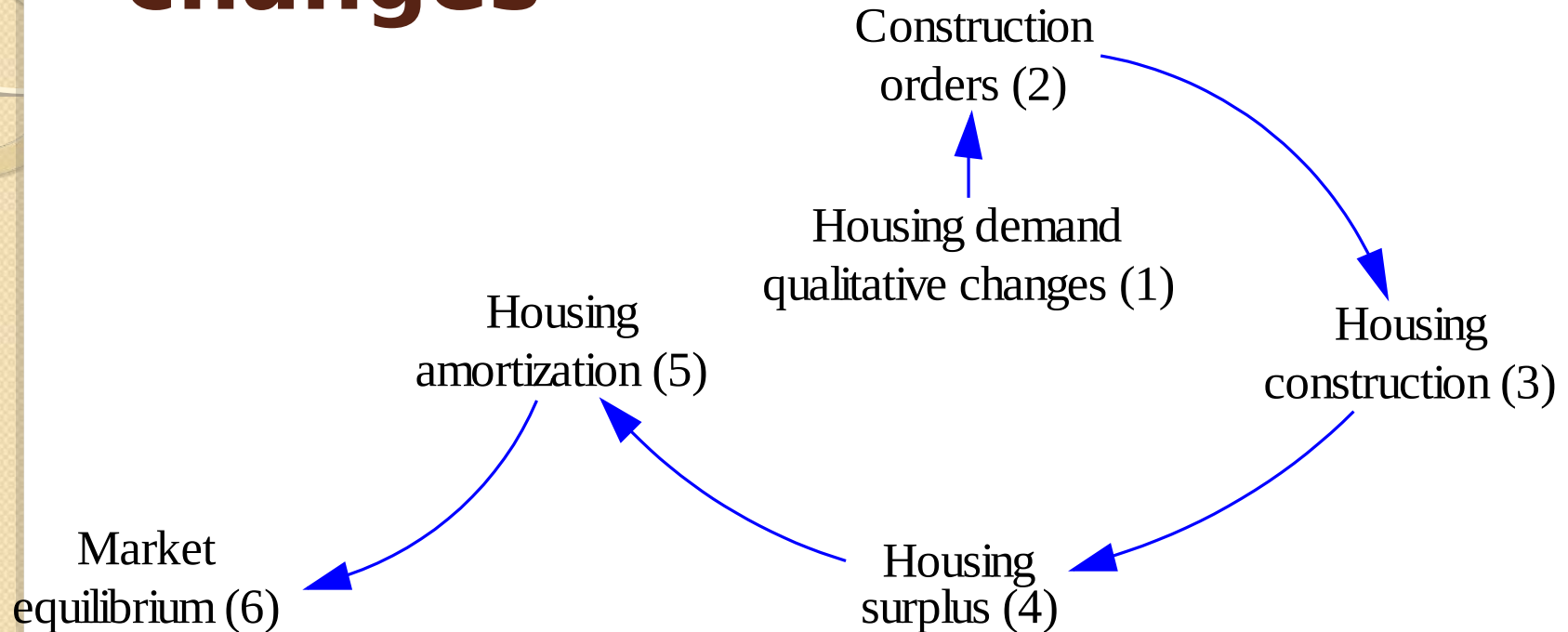
Gradual housing amortization does not cause displacement from equilibrium. Construction according to amortization returns system to equilibrium. However, construction delays can cause short-term effects on equilibrium.

Construction market expansion model



In case of demand expansion, construction quickly returns system to equilibrium.

Housing demand qualitative changes

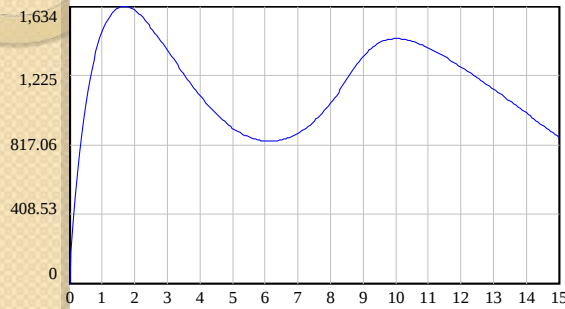


In case of rapidly qualitative changes of housing demand, as it was observed in the Eastern Europe, construction according to new demand deduces the market from equilibrium. Qualitative demand changes - this is housing conditions requirements increase (by living space or quantity of rooms).

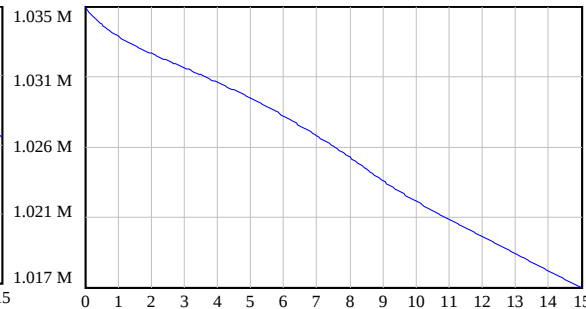
Results of housing demand qualitative changes

- In the short-term period – a rise of prices for houses in sector with new standards, after them a rise of prices in all housing sectors. Stopping replenishment and construct of small-sized and social housing.
- In long-time period – surplus of housing, including houses not corresponding to market demand. Falling of the prices in the sector with new standards and, further, in all sector of housing.

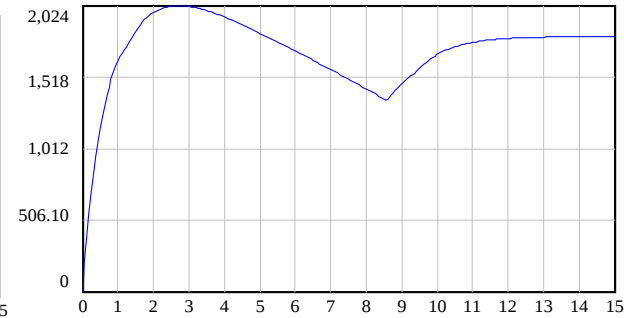
Latvian construction industry forecast



Construction demand (houses)



Living funds (th. houses)



Construction (houses)

	2009	2011	2013	2015	2017	2019	2021	2023	2024
Construction demand (houses)	0	1609	1107	838	1060	1441	1276	1004	859
Living funds (th. houses)	1036	1032	1030	1028	1026	1023	1021	1018	1017
Construction (houses)	0	1975	1943	1703	1434	1676	1791	1803	1803

Priekšlikumi Proposals

- **Veicot publiskos iepirkumus, atbilstoši Publisko iepirkumu likumam vai Sabiedrisko pakalpojumu sniedzēju iepirkumu likumam, konkursu nolikumā iestrādāt ilgtspējīgas būvniecības vērtēšanas kritērijus;**
- **Veikt kvalificētu ekspertu piesaisti jau dokumentācijas sagatavošanas posmā, pasūtītājiem nodrošināt kvalitatīvu konkursu nolikumu sagatavošanu;**
- **Izstrādāt ļoti precīzas tehniskās specifikācijas un līguma dokumentāciju: projektā ietvert gan būvmateriālu un būvizstrādājumu specifikācijas, gan darbu detalizēta organizācija, gan izmaksu aprēķins (tāme). Nenorādot izmantojamo materiālu un mehānismu nosaukumus un parametrus darbu aprakstos, būvuzņēmēja piedāvājums vieš neuzticību, kā arī būtiski apgrūtina tā izvērtēšanu;**
- **Izvēlēties saimnieciski visizdevīgākā piedāvājuma izvēles kritēriju;**
- **Piedāvājumu izvērtēšanas komisijas locekļiem jābūt kompetentiem un zinošiem kā būvniecības nozarē, tā arī ar to saistītajos likumos, MK noteikumos un citos normatīvos aktos.**

Mēs arī tā varam

We are also so we can





PALDIES PAR UZMANĪBU!

THANK YOU!