

Bundang Office Market

November 2010



Bundang Office Market Summary, Q3/2010

Average Rent (KRW/3.3058 sqm, based on GLA)	Average Rent (KRW/3.3058 sqm, based on NLA)	YoY Increase Rate	Vacancy Rate	Projected Short-term Vacancies
45,800	89,400	-0.1%	11.7%	↗

Source: Savills Korea

Bundang Office Market

Supply

Two new buildings in the Bundang office market completed this year, NHN headquarters building (NHN Green Factory Tower) and the Yemiji Building. The NHN Green Factory Tower will be fully occupied by NHN affiliates and its organisations, which are currently scattered across numerous buildings in the Bundang area. Yemiji Building has been leased out to a number of IT firms, posting an occupancy rate of 33 per cent as at the end of September. In 2011, only a medium-sized BS building is expected for completion in August, and thus supply in the Bundang office market is expected to fall.

New Buildings and Planned Supply in Bundang, 2010 – 2011

Completion	Building Name	Address	Floors	GFA (sqm)	Remarks
Feb 2010	NHN Green Factory Tower	178-1 Jeongja-dong Bundang-gu	B7F/28F	101,662	100% for owner use
Feb 2010	Yemiji Building	6-5 Sunae-dong, Bundang-gu	B4F/12F	13,771	100% for lease
Aug 2011	BS Tower	6-4 Sunae-dong Bundang-gu	B5F/12F	16,579	100% for lease

Source: Savills Korea

Pangyo Techno Valley first saw office buildings erected in 2009 and it now houses six buildings with a combined GFA of 257,900 sqm. Most of the buildings in Pangyo are being used by their owners except for Pangyo Venture Valley 7 and SK Chemical's R&D Center, both of which offer limited office space for lease.

New Supply in Pangyo Techno Valley (2009 – 2010)

Completion	Building Name	Address	Floors	GFA (sqm)	Remarks
Mar 2009	Institut Pasteur Korea	696 Sampyeong-dong, Bundang-gu	7F	15,199	100% for owner use
Dec 2009	Pangyo 7 Venture Valley	625, 633 Sampyeong-dong, Bundang-gu	10F/ B3F	103,162	7% for lease
Mar 2010	Samsung Techwin R&D Center	701 Sampyeong-dong, Bundang-gu	6F/ B4F	58,582	100% for owner use
Aug 2010	Yura R&D Center	686-1 Sampyeong-dong, Bundang-gu	9F/ B4F	22,849	100% for owner use
Sep 2010	SK Chemicals Pangyo Center	686 Sampyeong-dong, Bundang-gu	9F/ B5F	47,513	11% for lease
Sep 2010	SK Telesys	686 Sampyeong-dong, Bundang-gu	9F/ B5F	47,513	11% for lease

Source: Savills Korea, Gyeonggi Urban Innovation Corporation

In 2011, a total of 11 new buildings with a total GFA of 873,421 sqm are expected to complete in Pangyo Techno Valley. Out of the 11 buildings, eight (with a combined GFA of 632,691sqm) are on schedule, while the other three buildings have been delayed.

According to the Gyeonggi Urban Innovation Corporation in charge of the development and management of Pangyo Techno Valley,¹ the eight buildings on schedule, were originally planned for owner-use, with only 76,033 sqm of office space set aside for lease. However, this number is expected to change with more leasable office space coming to the market than originally intended, as developers are willing to pay the penalties to increase lease ratios in order to capitalise on the relative undersupply of leased space in the market.

Planned Supply in Pangyo Techno Valley (2011)

Completion	Building Name	Address	Floors	GFA (sqm)	Remarks
Apr 2011	Pangyo Inno Valley	A-2-2	10F/ B3F	151,555	100% for owner use
Apr 2011	Korea Biotechnology Venture Organization	B-2-1	9F/ B3F	59,549	100% for owner use
Feb 2011	Pangyo Technology R&D Facilities SD2/ former Hanwha Consortium	SD-2	10F/ B4F	127,284	37% for lease
Jan 2011	Mirae BI/Mirae Asset Venture Investment	D-1-2	9F/ B4F	23,465	54% for lease
Sep 2011	Sigong Tech	D-2-4	10F/ B3F	9,414	100% for owner use
Sep 2011	Ahn Lab Consortium	D-4	10F/ B3F	67,348	18% for lease
Sep 2011	LIG Nex1	B-7	6F/ B2F	41,522	100% for owner use
Oct 2011	Pangyo Techno Valley Edu Park/Woolim Consortium (Block 9)	SA-1	9F/ B3F	64,228	37% for lease, possibility of delay
Nov 2011	Samwhan Consortium	SD-3	10F/ B5F	91,009	61% for lease, possibility of delay
Dec 2011	Nexon Consortium (Block 6, 7)	C-3	10F/ B4F	85,494	100% for owner use, possibility of delay
Dec 2011	Mtek Vision Consortium	D-3-3	10F/ B3F	152,554	3% for lease

Source: Gyeonggi Urban Innovation Corporation

1) According to GUIC, a total of 2,252,000 sqm of research centres, office and retail facilities will be supplied in Pangyo Techno Valley by 2015 and around 11% or 251,911 sqm of the total space has been allocated as leasable office space.

Bundang Office Market

Demand and Vacancy Rate

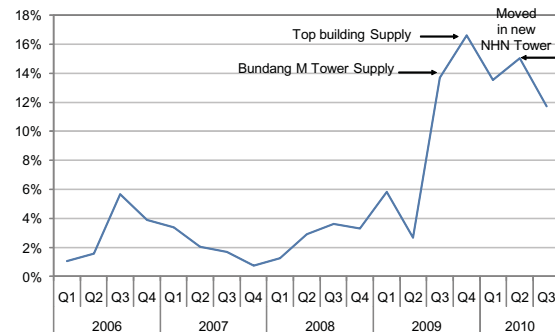
Bundang saw its vacancy rate decrease to 13.5 per cent in Q1/2010 as tenants took space at Bundang M Tower and Top Building, both completed in 2009. In Q2, the movement of NHN affiliates and their scattered organisations to the new NHN Tower, caused Bundang's vacancy rate to increase to 15 per cent before falling again to 11.7 per cent in Q3 as newly completed buildings saw their occupancy rates improve. As of Q3, Bundang M Tower and Top Building posted 83 per cent and 54 per cent occupancy rates respectively, while only 33 per cent of space in Yemiji Building, which was put on the market in 2010, was leased out.

Changes in Vacancy Rates, Q4/2009 – Q3/2010

	Q4/09	Q1/10	Q2/10	Q3/10
Vacancy Rate	16.6%	13.5%	15.0%	11.7%

Source: Savills Korea

Bundang Office Vacancy Rates, Q1/2006 – Q3/2010



Source: Savills Korea

The following table shows the relocation of major tenants between Q1/2010 and Q3/2010. As already mentioned, NHN consolidated its headquarters into its own building in Jeongja-dong from its previous locations in Bundang First Tower, Chorim Building, Mirae Asset Place and others. Tmax Soft disposed of Tmax Building and Tmax R&D Center in Seohyeon-dong in 2010 on a sale and leaseback basis, moving its offices from Seohyeon Building and Yaereum Savings Bank Building to the Tmax Building.

Up until 2009, a high proportion of the new supply in Bundang was absorbed by companies relocating from Gangnam seeking lower rents. However, this year, it has been successful in attracting a significant number of IT firms, particularly into the Bundang M Tower from Yong-in area, primarily due to the well-established infrastructure and proximity of the Bundang office market.

Major Tenancy Changes, Q1/2010 – Q3/2010

Tenant	From	To	New Lease Area (sqm)
Q1			
Neowiz INS	Samsungdong KORAD Building	Bundang M Tower	5,726
KEPCO E&C	Yong-in Office	Bundang M Tower	11,452
Q2			
Samsung Thales Communications Research Center (Defence industry)	A building located in Yongin-si	Bundang M Tower	5,726
Blueside (Electronic entertainment industry)	Nonhyeondong Novel Building	Top Building	1,691
Q3			
Mando Bundang R&D Center	A building located in Yongin-si	Bundang M Tower	5,726
Silicon Works (Semiconductor)	Newly formed organisation	Top Building	1,343
CHA Cares (IT)	Seongnam Apartment-style Factory	Top Building	1,343
STS Semiconductor	A building located in Cheonan-si	Yemiji Building	1,222
Hana HSBS Life Insurance	Newly formed organisation	Yemiji Building	1,222

Source: Savills Korea

In Q4/2010, the Bundang office market vacancy rate looks set to rise as a result of several major tenant movements. Tmax Soft and SK C&C will move into their own office buildings as will SK Telesys, whose office building in Pangyo was completed in September 2010.

In 2011, the completion of the BS Tower and release of Pangyo Techno Valley office supply will put further upward pressure on the vacancy rate. Although new developments in Pangyo have yet to impact the Bundang market significantly, the imminent supply of 76,000 sqm of new leasable office space onto the market in 2011 is likely to do so. In fact, our survey shows that numerous Pangyo buildings are marketing themselves with lower rents than Bundang office buildings. The 2011 supply of 76,000 sqm is similar to the size supplied in Bundang during 2009 and 2010, when the Bundang market recorded a vacancy rate of 10 per cent.

Bundang Office Market

Rent

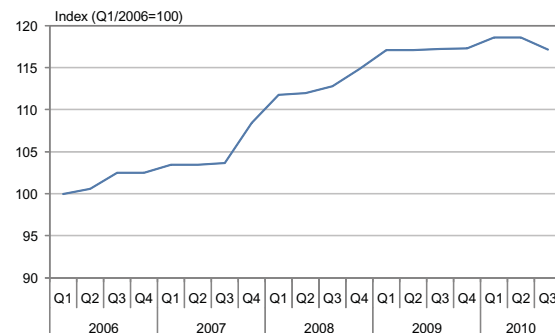
With the vacancy rate hovering above 10 per cent up until Q3/2010, year-on-year rental growth stagnated at 1.3 per cent in both Q1 and Q2. In Q3, average rents dropped by 0.1 per cent as buildings with high vacancy rates were marketed with face rents reduced by 10 per cent. Among those high-vacancy buildings, there are even cases of actual rents offered at 20 per cent less than their face rent as a result of the rent-free periods provided to new tenants.

Changes in Rents in 2010

		Q4/09	Q1/10	Q2/10	Q3/10
Rent (KRW/3.3058sqm)	Based on GLA	44,800	46,400	46,400	45,800
	Based on NLA	89,800	90,400	90,400	89,400
Rent increase (QoQ), based on NLA		0.0%	1.1%	0.0%	-1.2%
Rent increase (YoY), based on NLA		2.1%	1.3%	1.3%	-0.1%

Source: Savills Korea

Bundang Office Rental Index (Q1/2006 – Q3/2010)



Source: Savills Korea

Going forward, Savills' survey reveals that only rents in a few buildings will increase in Q4/2010 with a high vacancy rate likely to weigh heavily on rent hikes in 2011.

Transaction and Investment Market

In the first half of 2010, three Bundang buildings were purchased by companies seeking buildings either for investment or for their own use. Tmax Soft sold its office building and R&D centre to SP Comtech for KRW21.8 billion on a sale and leaseback basis before applying for a workout. Allianz's Bundang office building was transformed into a hospital after being sold to Bundang Now Medical Center. The Tmax Building and Tmax R&D Center, were acquired as investment properties, each known to have achieved a cap rate of around 8 per cent.

Major Office Transactions in 2010

Time of Transaction	Building Name	Seller	Buyer	Area (sqm)	Transaction Amount (KRW bil)	Remarks
Jan 2010	Tmax Building/ former Tmax Soft R&D Center I	Tmax Soft	Sekwang Enertech / former SP Comtech	4,188	10.7	Sale and lease- back
Jan 2010	Tmax R&D Center/ former Tmax Soft R&D Center III	Tmax Soft	Sekwang Enertech / former SP Comtech	4,972	11.1	Sale and lease- back
Feb 2010	Allianz Life Insurance Bundang office	Allianz Life Insurance	Vanguard/ Bundang Now Medical Center	14,430	32.7	Used as a hospital

Source: Savills Korea

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Bundang Office Market

Appendix

Overview of Bundang Office Market

There are a total of 73 office buildings in Bundang, with a combined GFA of 1,271,863 sqm, as of the end of 2009. In terms of GFA, Seohyeon and Migeum-Ori districts account for more than 50 per cent of the entire Bundang market, representing 30.6 per cent and 23.7 per cent respectively, while the other three office districts, which are similar in size, make up the remaining 50 per cent.

Bundang Office Market Size, Q3/2010

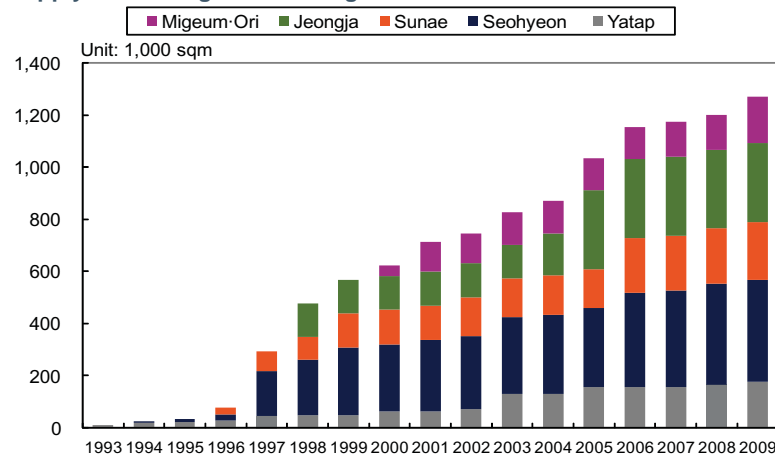
District	Yatap	Seohyeon	Sunae	Jeongja	Migeum-Ori	Total
No. of buildings	14	34	15	3	7	73
Average GFA (sqm)	25,728	11,459	14,954	12,618	100,394	17,423
Total GFA (sqm)	180,098	389,611	224,317	176,655	301,183	1,271,863
Portion	14.2%	30.6%	17.6%	13.9%	23.7%	100.0%

Source: Savills Korea

*Office stock represents the total GFA of only office buildings and government agency buildings, officetel (studio apartment) buildings and mixed-use buildings are excluded from the total. The figures are subject to change due to regular data corrections and adjustments.

The Bundang area was first developed as an office district in the mid-1990s when the central government (state-run corporations)² moved in and engaged in full-scale development up until the early 2000s when established companies started to build their own office buildings in the area. Soon after, with the development of neighbouring areas such as Yong-in, Bundang established itself as the commercial business centre of the southern Seoul metropolitan area, seeing increasing demand for office space from private companies. The surge in office supply and investments guided the area into a stage of maturity as an office market.

Supply of Buildings in Bundang



Source: Savills Korea

Major Office Buildings for Owner Occupancy and Lease in Bundang

Building Type	Names of Major Office Buildings and Owners
State-run corporation office buildings	Korea Land & Housing (LH) Corporation, Korea Gas Corporation, Korea Minting & Security Printing Corporation, Korea District Heating Corporation, Korea Expressway Corporation, Korea Telecom
Private corporate buildings private used by owners or R&D centres	NHN Green Factory Tower, SK Telecom R&D Center, SK C&C, PosData, HUMAX, ON Media, Chosun Refractories, Kyeongdong Building, Daewoo Engineering
Office buildings for lease	First Tower, SH Energy Building, Mirae Asset Place, Chorim Building, Bundang M Tower, Top Building, Yemiji Building, buildings for lease owned by other financial institutions
Buildings under development or in the pipeline	BS Tower (slated for completion in 2011)

Source: Savills Korea

2) A total of 80 buildings and 1,547,916 sqm in Bundang office market was surveyed including construction work.

Bundang Office Market

Overview of Buildings Surveyed

Savills Korea survey and analyse a total of 18 buildings that are leased out on a monthly basis with security deposit. 100 per cent owner-occupied buildings are excluded from the survey.

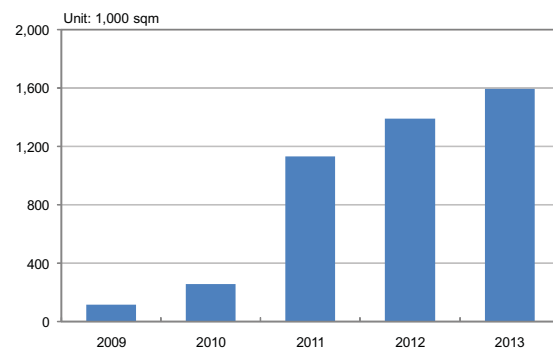
Overview of Pangyo Techno Valley Office Market

Pangyo Techno Valley is centred around industrial clusters for state-of-the-art industries³, such as IT, BT, NT and CT in the housing development project zone in Pangyo New City. Land sites for development were sold to developers from June 2006 and the total land area of Pangyo Techno Valley is 454,964 sqm which account for around 5 per cent of the entire Pangyo New City of 9,219,331 sqm. In the Pangyo Techno Valley, of the 41 total land plots or 433,518 sqm available for office and R&D centre development, 32 have already been sold. According to the GUIC, the remaining nine land plots, which were left unsold or whose sale and purchase agreements were cancelled, will be put up for sale at the end of 2010 or early 2011, depending on real estate market activity.

Total Land Area	Total Area Available For Development	R&D Center & Office			Parking Lot Area
		Invitational Research Complex (Public+Private)	General Research Complex (Private)	Research Support Complex (Public+Private)	
661,915 sqm	454,964 sqm (Total 44 lots)	48,417 sqm (Total 6 Lots)	267,450 sqm (Total 26 Lots)	117,651 sqm (Total 6 Lots)	21,716 sqm (Total 6 Lots)

Between December 2009, when Pangyo Venture Valley IIV was first offered, and September 2010, office space with a total GFA of 257,265 sqm has been supplied on seven plots. Looking only at the buildings currently under construction, an additional GFA of 1,338,587 sqm on 16 land plots, will come on line between 2011 and 2013.

Overview of Pangyo Techno Valley Office Supply



³ Pangyo Techno Valley has attracted industrial clusters focusing on the next generation growth engine industries: i.e. Information Technology, Bio Technology, Nano Technology, and Culture Technology