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Skolkovo Construction as Challenging as Innovation

By Rachel Nielsen

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A rendering of the SkTech graduate school at Skolkovo. The building that looks like a book propped open on its covers is the main hall. It sits between two rings of classroom and research facilities.

In the summer of 2014, the Skolkovo Innovation Center at Moscow's western edge is supposed to welcome eight world leaders and thousands of other guests for that year's G8 Summit.

Located in the town of the same name, the Skolkovo campus is the future home of the Russian version of Silicon Valley, a project started by then-President Dmitry Medvedev. This spring, Medvedev aide Vladimir Kozhin said the campus would be the site of the G8 conference that Russia is hosting two years from now.

Today, visitors to the site are greeted by one stout office building, a stretch of paved road and a gatehouse that overlooks endless fields of grasses and white daisies.

Skolkovo Status

Though the physical Skolkovo site is in its early stages, the scientific and entrepreneurial aspects of Skolkovo have been progressing quickly, with hundreds of Russian startups receiving funding and consulting from the Skolkovo Foundation.

That is a major step for the foundation's goal of creating a high-tech investment hub and modernizing the country's economy and business culture.

Since December 2010, when the foundation selected the first technology firms to receive Skolkovo affiliation, more than 500 startups have been chosen and granted a total of more than 2.9 billion rubles ($90 million). At least another 5.1 billion rubles in grants has been promised.

In addition, about 20 major global companies, including Nokia, Microsoft and Siemens, have promised to establish R&D centers at Skolkovo, as have a handful of Russian corporations.

Startups will be eligible to become residents of the Technopark, the main research center, if their products have not been commercialized by the time the facility opens in 2014, Vasily Belov, an energy science executive with Skolkovo, told The Moscow Times.

SkTech, the graduate school joint venture with MIT, is also ramping up. Last week, it launched its inaugural academic year with its first students, who will attend classes at MIT or in London, Hong Kong or Zurich.

— Rachel Nielsen

Skolkovo's management faces the difficult task of making the center an appropriate venue for a G8 conference, real estate experts say.

"It's really tough to do it in two years, but it's possible," said Irina Anisimova, who has worked as a commercial manager in the domestic construction business since the mid-1990s and now is a project manager with VTB Development.

Builders have 17 months for regular work and six months of winter conditions from now until July 2014, the most likely time for the forum, though some G8 Summits have convened as early as May. Skolkovo's complex architectural designs, which shun large-scale, box-like designs for clusters of buildings with glass facades and creative roofs, could also affect the rate of construction.

According to Anisimova, finishing just the main research complex planned for Skolkovo by mid-2014 presumes that all of the design documentation is ready now, that construction happens around the clock and continues through the winter and that at least 3,000 people work during the peak construction period.

"Are they going to be able to complete it? There is some doubt about that," said Alexei Filimonov, head of real estate investment consulting firm Astera Group. It will be finished on time "for political reasons," he added.

The Skolkovo Foundation — the government-funded administrative body responsible for choosing startups to take part and organizing site construction — has not yet released a timeline for the construction of individual buildings. "Some aspects are still in the decision stage," Skolkovo Foundation spokesman Roman Shcherbakov said in an e-mail, adding that there will be more clarity on construction plans by September. An architectural overview provided by the Skolkovo Foundation says groundbreaking on the most substantial pieces of Skolkovo — a main research zone and a graduate school of technology — won't begin until this November.

Dirt and Daisies

Thus far, the hundreds of Russian startups already granted "resident" status at Skolkovo are actually located in the Moscow region and other places, and not physically present at the site.

Russian conglomerate Renova held a groundbreaking ceremony for its research and development center at Skolkovo on Aug. 2. At the site, dirt fields stretched into the distance, dotted with about 20 trucks and earth-moving machines and almost as few workmen. Some plots have excavation in progress, while meter-high wildflowers and grasses cover others.

According to the document provided by the Skolkovo Foundation, the heart of the innovation city will include a main research complex of 150,000 square meters, additional research and office space of 140,000 square meters, 360,000 square meters of residences and the graduate school, with 200,000 square meters of academic space. Each of these projects equals or exceeds a typical Moscow mega-mall in total area.

Today, there is only one building on the site that is finished and suitable for business use. Called the Cube, the 6,000-square-meter facility will serve as a general meeting space and as the home of the Skolkovo Foundation.

Construction of Renova's lab will get under way by September, Skolkovo said in a press release. Also, building will start this month on offices for 15 multinational companies that have signed partnership agreements with Skolkovo, the center's city manager, Viktor Maslakov, told RIA-Novosti.

Not Under One Roof

Scores of individual buildings will need to go up to complete the two main zones with the research complex and the graduate school, while more than 100 buildings will cover the final Skolkovo site, press kits from Skolkovo show.

Having numerous separate buildings will make construction more complicated, Anisimova said.

The Technopark — the main research facility — is a prime example. Skolkovo has five research divisions: information technology, energy efficiency, biomedical, space and nuclear technology. The Technopark will have a long rectangular building for each division, each with its own roof.

There will be about 20 buildings total making up the Technopark and nearby offices, which are supposed to be completed by April 2014, maps show.

The graduate school — the Skolkovo Institute of Science and Technology or SkTech, which is a joint venture between the Massachusetts Institute of Technology and Skolkovo — will also consist of numerous structures.

Totaling 200,000 square meters, the school's campus will have two rings of academic buildings, said Justin Varilek, an SkTech spokesman. The larger ring will have about 15 roofed sections, the presentation suggests, and it will total 130,000 square meters, Varilek said.

The other ring will be 30,000 square meters with about seven sections.

None of the architectural firms designing the two main zones — France's Valode & Pistre and Harvard architect Mohsen Mostafavi for the Technopark zone or Switzerland's Herzog & de Meuron for SkTech — answered requests for comment.

Money and Weather

The construction project and the innovation programs of the Skolkovo project are expected to cost 120 billion rubles ($3.8 billion), with half of that amount coming from the government and half from investors brought into the program, Skolkovo spokeswoman Darya Manayenkova said this spring.

Yet money for the transportation infrastructure connecting the innovation city and the rest of Moscow, as well as for Skolkovo's utilities, might be at risk.

About 4.5 billion rubles ($140 million) in federal funds earmarked for Skolkovo infrastructure is being diverted to disaster relief for flood-ravaged areas in Krymsk in southern Russia, RIA-Novosti reported, citing an anonymous source in the Moscow city government.

Now the city will need to work with the Finance Ministry to secure alternative funding, the source said.

Continuing major outdoor construction during the winter, which is likely necessary in order to meet the G8 deadline, also would increase costs. The freezing temperatures of January,

February and March create especially difficult construction conditions, Filimonov said.

In the range of minus 15 degrees to plus 5 degrees Celsius, concrete still can be poured, allowing foundations, walls and other parts to be made, Anisimova said.

But it requires special chemical additives and temperature controls. In addition, electrodes would be buried in the concrete to maintain the proper temperature and prevent structural damage.

"You don't get them back," she said.

In the cold temperature range, excavation can potentially continue, but it is possible that soil condition can prohibit winter digging.

For the inside work — installing electricity, plumbing and ventilation systems and putting up internal walls — there must be enough work completed to guarantee an interior temperature of 5 degrees.

The critical thing is putting up the roof and walls by autumn, Anisimova said.

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