

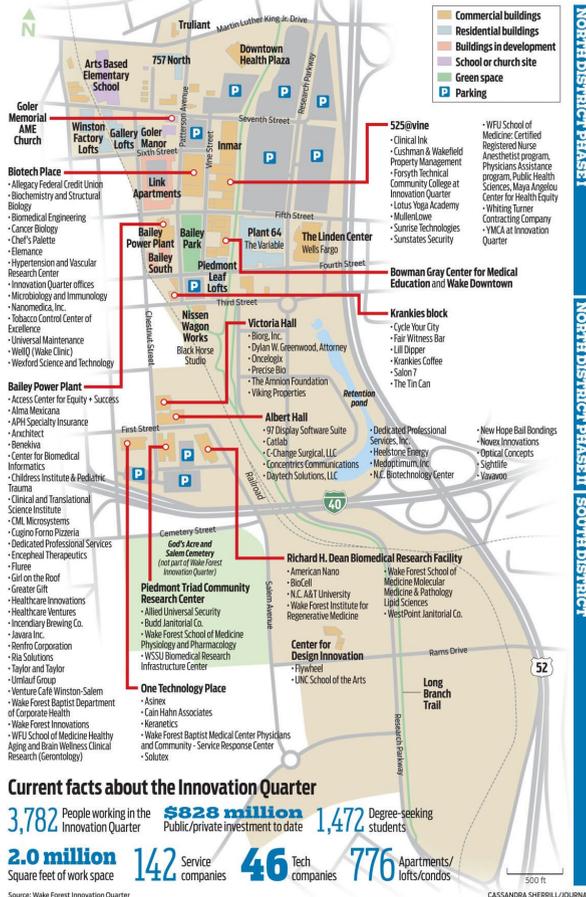
# Businesses, research, residential living come together as Wake Forest Innovation Quarter continues to grow

## Quarter continues to grow

By Fran Daniel Winston-Salem Journal Jun 29, 2019

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### What's in the Wake Forest Innovation Quarter?



**Current facts about the Innovation Quarter**

- 3,782 People working in the Innovation Quarter
- \$828 million Public/private investment to date
- 1,472 Degree-seeking students
- 2.0 million Square feet of work space
- 142 Service companies
- 46 Tech companies
- 776 Apartments/lofts/condos

Source: Wake Forest Innovation Quarter

CASSANDRA SHERILL/JOURNAL

As Wake Forest Innovation Quarter continues to take shape as a hub of activity where people work, live, learn and play, its officials are exploring this urban-based innovation district's next phase of development.

"The fact that there's stuff under construction all the time makes it a little more complicated, but we're working through that and that will end; although, happily, construction keeps going," said Graydon Pleasants, the head of real-estate development for the Innovation Quarter.

The Innovation Quarter, an initiative of Wake Forest School of Medicine, which

is part of Wake Forest Baptist Health, is in the eastern part of downtown Winston-Salem. It sits on 337 acres, of which 168 acres have been developed by Wake Forest Baptist Health or other entities.

It is home to more than 3,700 workers; more than 1,470 degree-seeking students; 776 apartments; lofts and condos; 142 service companies; 46 technology companies; and five academic institutions.

The majority of buildings in the innovation district sprang from revamped R.J. Reynolds Tobacco Co. factories and warehouses.

In terms of developers, the big players there at the moment are Grubb Properties, which is developing the Link Apartments Innovation Quarter, a \$68 million residential, retail and parking complex; Wexford Science & Technology, which opened Bailey Power Plant in February 2018; and Front Street Capital, the developer of Bailey South, the newest project underway in the innovation district.

"That's an exciting project," Pleasants said of Bailey South. "It's a wonderful blend of weaving in this old power plant with a modern office building."

So far, \$828 million in public and private dollars have been invested in the Innovation Quarter.

Wexford has been the primary real-estate developer, previously becoming partners with Wake Forest Baptist Health to restore Wake Forest Biotech Place, [525@vine](mailto:525@vine), the Inmar Inc. headquarters and the 60-series buildings that are now home to the Bowman Gray Center for Medical Education of Wake Forest School of Medicine as well as Wake Downtown, a Wake Forest University location in the innovation district.

The majority of the projects developed by Wexford have benefited from the North Carolina mill tax credit and federal historic tax credits. The city of Winston-Salem and Forsyth County provided some tax-based incentives.

According to its website, the mission of the Innovation Quarter is "to drive economic growth and build vibrant community."

Bruce Katz, the director of the Nowak Metro Finance Lab at Drexel University in Philadelphia, has visited the Innovation Quarter several times.

"It's a remarkable story — first and foremost," Katz said. "It's a story that has domestic and even global implications."

He said that innovation districts are a new spatial geography of innovation in the United States and in the world.

"Winston-Salem is really at the vanguard of it with a couple dozen other cities," Katz said.

He said he talks a lot about Winston-Salem throughout the United States and outside the country, saying it shows how a major university, a health system and other public, private and civic actors "can come together and really create something that is bigger than the sum of the parts."

"Not just as an innovation quarter but also as a major piece of their revitalization of the core of the city in the metro area," he said.

What Katz sees as setting the Innovation Quarter apart from other innovation districts is the fact "that it's rooted in the authenticity of the past in Winston-Salem."

"The remaking of the old tobacco factories into new innovative facilities just sends a very strong signal of how to repurpose your economy for a different

century and for different challenges,” Katz said.

He also said that the Innovation Quarter’s location is interesting because it is on the periphery of the downtown area.

“Many innovation districts in the United States tend to coalesce around the advance research institutions,” Katz said. “Many of them tend to be located in midtowns of American cities.”

Innovation districts have been evolving the past two decades.

Katz said that 20 years ago people tended to think of innovation as concentrating in sterile research parks about 20 miles from a downtown.

Now, “the innovation economy has collapsed back toward the city because this is where people want to live, work and play,” he said.

He also said that innovation tends to be “a collaborative act toward multiple sectors and disciplines.”

The Innovation Quarter was recently chosen as a member of the Global Institute on Innovation Districts. It is one of six districts from around the world that will comprise the organization’s initial steering committee. It joins districts based in Amsterdam, Netherlands; Melbourne, Australia; New York; Pittsburgh; and St. Louis.

## A bit of history

Over the years, different people and entities have come together to help the Innovation Quarter evolve from a small research park.

The Innovation Quarter’s roots go back to the time period between 1986 and 1990 when Winston-Salem lost a lot of bedrock companies and there was a push by various people and groups in the community to focus on life sciences and technology to help the local economy.

A study commissioned by the Winston-Salem Chamber of Commerce in 1992 recommended a research-park site in the Chestnut Street area of downtown Winston-Salem.

In 1993, Wake Forest School of Medicine bought the Quality Assurance Building, now called the Piedmont Triad Community Research Center, on Chestnut Street from R.J. Reynolds Tobacco Co. The center opened in 1994, housing Wake Forest University School of Medicine’s Department of Physiology & Pharmacology and researchers from Winston-Salem State University. Then in 2000, One Technology Place opened.

In 2002, Wake Forest University Health Sciences announced a major expansion of the Piedmont Triad Research Park to 200 acres. Then Reynolds American Inc., the parent company of R.J. Reynolds Tobacco, donated 16 acres in downtown for the project and pledged to give another 22 acres, including the Bailey Power Plant. Other research and laboratory space came online in the late 2000s.

With state and federal funding, the creation of infrastructure began in 2008. That included the moving of Norfolk Southern Railway tracks, the burying of Duke Energy Corp. transmission lines and the construction of a new rail bridge.

The \$100 million Wake Forest Biotech Place, a redeveloped tobacco building by Wexford Science & Technology opened in 2012. The next year, the Piedmont Triad Research Park was renamed Wake Forest Innovation Quarter. That same year, Wexford announced the renovation of 635 Vine and [525@vine](mailto:525@vine), a \$150 million investment.

Bailey Park, a 1.6-acre green space, opened in 2015 as well as the Center for Design Innovation, known as CDI.

The Bowman Gray Center for Medical Education of Wake Forest School of Medicine opened in the Quarter in the summer of 2016 and Wake Downtown joined the community in January 2017.

## Research

Wake Forest Baptist Health’s research presence in the Innovation Quarter

involves several large groups.

Dr. Greg Burke, the chief science officer for the medical center and senior associate dean for research at the medical school, gave an overview of some of them.

Wake Forest School of Medicine Public Health Sciences has 275 researchers.

“They are running some of the very large clinical trials, testing strategies to prevent chronic diseases,” Burke said. “A large study recently done on lowering blood pressure was coordinated out of that group. . . . It’s a group of people who are providing statistical support. They’re nationally recognized.”

He estimated that this group brings in about \$45 million in research funding every year.

Wake Forest Institute for Regenerative Medicine focuses on applying the principles of regenerative medicine to repair or replace diseased tissues and organs.

Its team is working to grow tissues and organs as well as develop healing cell therapies for more than 30 different areas of the body, including kidneys, trachea and cartilage.

“They are doing absolutely some cutting edge world-class work,” Burke said.

The Center for Healthcare Innovation and Wake Forest Innovations are involved in growing and coming up with new ideas for commercialization.

“The Center for Healthcare Innovation is really focused on thinking about how do we take what we know and apply it in the real world and improve health of patients and communities,” Burke said.

Wake Forest Innovations, he said, is looking at discoveries and identifying the ones that will ultimately be marketable and potentially good for commercialization, “to have companies take those inventions, move with them and bring them to the forefront to allow us to improve health.”

Other groups include a group in microbiology and endonology, a healthy aging and wellness group and the Department of Biomedical Engineering.

There is also a lot of people working in wet labs, commonly called science labs, in Biotech Place.

“Then there are collaborations with different folks in the Quarter,” Burke said.

Wake Forest School of Medicine’s Center for Biomedical Informatics is a relatively new center now housed in Bailey Power Plant.

According to the center’s website, it is a cross-disciplinary initiative “designed to integrate resources throughout Wake Forest School of Medicine, Wake Forest Baptist Medical Center and Wake Forest University while complementing the work of other research centers, including the Wake Forest Clinical and Translational Science Institute.

Metin Gurcan, the center’s director, said that the field of informatics is how to manage, process and analyze data and information, and that it is a disciplinary field.

“We are researchers and scientists and practitioners who come from a lot of different backgrounds,” he said.

They include medical doctors, software engineers and people with PhDs.

“In health care, we are at a really interesting point now,” Gurcan said. “We actually can use the data that we have about the patients and diseases.”

Burke said that Wake Forest Baptist Health has achieved what it expected to at this point in the development of the Innovation Quarter, saying it is in phase one of continuing to grow its enterprise, “of finding ways to have great scientists working together in a very cool environment.”

He said that Wake Forest Baptist wanted to bring groups together, create “scientific neighborhoods.”

Still, Burke said there is always more to be done.

“There are always aspirations that we have to grow and really answer even more questions,” he said. “But I think that at this juncture, from my vantage point, it has been very successful.”

He said that Wake Forest Baptist has identified areas it is focusing on and will continue to do so in the future, including cancer, cardiovascular disease, aging and Alzheimer’s disease, diabetes, obesity and substance use and abuse.

“But we’re also building important translational skill sets that allow us to take discovery and really come up with strategies that are going to make people healthy,” Burke said.

## Businesses and organizations

The Innovation Quarter has a mix of large, medium and small businesses and organizations. They include Allegacy Federal Credit Union, Clinical Ink, Fluree, Inmar Inc., Javara Inc., MullenLowe, Renfro Corp., The Variable and Truliant Victory Federal Credit Union.

Founded in 2016, Fluree is a software company that offers a database technology. Brian Platz and Flip Filipowski are the company’s co-founders and co-chief executives.

In April 2018, the company moved to Bailey Power Plant from space it had outgrown at Flywheel LLC, an operator of co-working innovation space, in the Center for Design Innovation in the Innovation Quarter.

“We’ve merged the ideas of a traditional database that can power enterprise or business application solutions with the emerging technology that is known as blockchain,” said Kevin Doubleday, marketing communications lead for Fluree, describing the company.

Blockchain is basically a digital distributed ledger technology.

“It’s essentially a ledger or a database of records that is shared across a network of entities,” Doubleday said.

Using a financial institution as an example, Doubleday said it probably does business transactions with other financial institutions or insurance carriers.

“They all host the database simultaneously in what we call a decentralized environment,” he said. “That lends itself to an immense amount of trust.”

As for the Innovation Quarter, Doubleday said that the district is more than a place to go to work.

“It’s also a place to connect with other companies, other resources and really leverage them,” he said.

Doubleday said that some of Fluree’s customers are in the district as well as a wealth of Winston-Salem resources, including Venture Café.

Javara is a clinical research services company. Incorporated in April 2018, the company moved to the Innovation Quarter in June 2018. It has about 12 employees, and is actively working with five consultants and advisers.

“Through our services, we are enabling doctors, large medical practices and health-care systems to offer cutting edge research options to their patients,” said Jennifer Byrne, the chief executive and co-founder of Javara.

The company provides clinical research professional personnel that work alongside doctors and patients enrolled in clinical trials.

“Then with those services, we bring the relationship directly with life science companies, pharmaceutical companies and device manufacturers really as their development partner and matching right clinical trials to the right patient and the right doctor at the same time,” Byrne said.

Java works with companies throughout the world from major pharmaceutical companies to small biotech companies.

The company chose to be in the innovation district “to be able to tap into the growing resources within this community through the Innovation Quarter,” Byrne said.

“Also, as a longtime community member, I wanted to create a company whereby we could draw a lot of national and international attention through those relationships of the company to this community, and to the benefit of the community,” she said.

Although the company is based in the Innovation Quarter, it also has clinical operations in Houston, Texas, as well as in High Point through some of the work it is doing with Wake Forest Baptist Health.

Flywheel, which provides a community workspace concept for startups, consultants and freelancers, is based in the Center for Design Innovation at 450 Design Ave.

CDI is a partnership in education, research and design between Winston-Salem State University, UNC School of the Arts and Forsyth Technical Community College.

Flywheel’s membership is currently at 135, including services, nonprofits, educational, corporate and start-up companies.

Forsyth Technical Community College has had a presence in the innovation district since 2014 and now has several entities there — the Small Business Center, BioNetwork Pharmaceutical Center, Business & Industry Services and NC Works Customized Training. The community college’s small business center served an estimated 350 businesses in 2018 and about 100 so far this year.

Venture Caf , which is part of a worldwide network of Venture Cafes through the Venture Caf  Global Institute, has been in the innovation district since May 2017. Its weekly entrepreneurial gatherings called Thursday Gatherings are still going strong.

“We have hosted more than 12,000 visits,” said Karen Barnes, the executive director of the Venture Caf  in Winston-Salem. “That’s over 4,000 unique individuals from across the state, and we’re really pleased with that.”

She also said that some people in the Venture Caf  community have taken their ideas to form businesses.

“We’ve had people take business plans into implementation, find investors and know they’re actually creating products,” Barnes said. “We have had people who have turned their side hustles into full-time jobs and are now hiring additional people and creating additional opportunities.”

The Access Center for Equity + Success, a minority- and women-owned business accelerator, recently opened in the Innovation Quarter. The nonprofit group was chosen by Wexford Science & Technology and the Innovation Quarter. Venture Caf  will partner with Piedmont Business Capital to provide support, training and access to funding for local small businesses and entrepreneurs through the new center.

## Residential, retail and more

In recent years, Innovation Quarter officials have envisioned more restaurants and retail offerings in the innovation district. The most recent offerings to come online include Alma Mexicana, Cugino Forno Pizzeria, Incendiary Brewing Company and Lill Dipper. In addition, new projects are expected to have elements of eating places and retail that should attract people who work and live in and around the innovation district.

Currently there are 776 lofts, condos and apartments within the Wake Forest Innovation Quarter. The units are in these residential buildings: 757 North Apartments, Gallery Lofts, Goler Manor, Piedmont Leaf Lofts, Plant 64 and Winston Factory Lofts.

For The Link Innovation Quarter, Grubb Properties is developing more than 340 apartment units and about 4,000 square feet of retail space wrapped around a

shared parking deck with 872 spaces on 3.4 acres. The project will have 6,470 square feet for retail.

The apartments range from 500 or 600 square feet for the smallest studio with one bedroom and one bath to 1,000 or 1,100 square feet for units with two bedrooms and two baths.

Paul O'Shaughnessy, director of development for Grubb Properties, said that plans are to provide retail offerings that bring more activity to the location and fit the style of the neighborhood and businesses that are currently in the Bailey Park area.

He said Grubb Properties has had a couple of interested folks and the company is considering such businesses as restaurants and a wine bar and biking facilities.

O'Shaughnessy said Grubb wanted to be in the innovation district because of the presence that Wake Forest Baptist Medical Center and biotech activity has there.

He said that the Innovation Quarter is serving as a "great catalyst to bring folks there for work and other activities on a daily basis, sort of creating a foundation for other people to play off of."

He said that as Grubb and other retail and residential businesses come into the innovation district they "add their piece to the puzzle."

"That just creates more momentum which then gets more retail coming, gets more folks aware of the space, more activity, more things that could be happening in Bailey Park," O'Shaughnessy said.

Emily Ethridge, corporate communications manager for Grubb Properties, said that the company has started leasing the apartments in the first phase of the Link project and hope to have those apartments come online at the end of August. Parking is already available.

Bailey South, now under construction, will be a six-story building with two stories of retail on the first and second floors and four stories of office space on the top. Two bridges will connect directly to the second floor on the back of the project. There will be two entrances, one off Fourth Street and the other off Patterson Avenue.

"Usually you do not put retail on the second floor of a building," said Coleman Team, a partner with Front Street Capital, a development, private equity and asset management company.

The company will add up to 65,000 square feet of new office and retail space to the existing 10,000-square-foot concrete structure of Bailey South.

"It makes the project a lot more complicated, but it's important to keep that historic element to the project," Team said of the original building.

Old train trestles, once used to transport coal into the core power-plant facility, will be redeveloped into walkways.

The Variable, a marketing agency currently in Plant 64, will be the building's anchor tenant.

In Phase 2 of its project, Front Street Capital will redevelop the existing Morris Building, a brick, multi-level building on the southwest corner of the block, that's about 20,000 square feet. Design work will probably begin this summer.

"As Bailey South builds up, we'll also be talking to tenants about the Morris building," Team said.

Front Street Capital plans to invest about \$22 million in Bailey South, a 14-month construction project that started in January. Tenants are expected to be able to move in by early April 2020.

The company expects to spend between \$5 million and \$8 million on the Morris Building.

Other offerings in the innovation district include Bailey Park and Long Branch Trail.

Pleasants suggested that when people visit Bailey Park, to sometimes come at

night.

“You feel like you’re in some big center,” he said. “It’s really very different and that kind of stuff is what people are responding to. They really like that sense of being in a sophisticated urban environment but still good old Winston-Salem.”

He also urged people to walk Long Branch Trail, which is a partnership between the N.C. Department of Transportation, the N.C. DOT Rail Division, the city of Winston-Salem, Wexford and the Innovation Quarter.

“It was a former rail line, rail bridges, very complicated,” Pleasants said. “But it turned into this lovely space.”

## Next steps

The next phase of development in the Innovation Quarter will be on land between Third Street and Business 40 — Phase 2 of the Northern District.

Pleasants said that Innovation Quarter officials are exploring the development of a cluster of buildings in this area but are currently just in the conceptual planning stage.

He said the project would continue the same density along the lines of what people now see in Bailey Park/Bailey Power Plant area.

“It’s going to be live, work and play,” Pleasants said. “It’s going to have some form of office or research component, some form of residential and some form of retail.”

He said that people like being in an environment where they can have a nice place to go for lunch.

“They can live there, and they can work there,” he said. “It’s that unique urban environment.”

Pleasants declined to give a timeline for the project, saying that he is an “eternal optimist.”

“We’ll go as fast as we can go,” he said.

He spoke of how there has been about 2 million square feet of development in the Innovation Quarter since he moved into his office there in 2012.

“There are not many places around the country that that speed of development is happening,” Pleasants said. “It’s a very impressive track record.”

He said that the proposed cluster of buildings could be another 2 million square feet.

And there’s still more undeveloped land further south in the innovation district.

“What we want to do is do this in a way that fits that innovation ecosystem, that innovation district philosophy,” Pleasants said. “Because that’s where we believe the future is in terms of attracting and retaining entrepreneurs, innovative people and the workforce of the future.”

## The future

Katz of the Nowak Metro Finance Lab at Drexel University said that based on the staging and sequencing of the Innovation Quarter every three or five years, it is filling in different pieces — universities, multiple companies, a mixed-use environment with restaurants, housing and green space.

“My sense is you’re poised for some bigger wins here,” Katz said.

He said that innovation districts tend to have a lot of company startups that scale up and expand, but other companies also begin to show up in the districts.

“Winston-Salem gets itself on the domestic and global map and other companies say, ‘We want to be there,’” Katz said.

It’s got a high quality of life,” he added. “It’s more affordable than many other parts of the country.”

Still, Katz said that people can't predict the economy.

"What you want to do is build the strongest ecosystem and the most distinctive ecosystem, and a collaborative culture between your public, private and civic sectors. And that becomes the gift that keeps on giving."

He said he is bullish about the Wake Forest Innovation Quarter, saying that it "has built a strong foundation for growth going forward."

Dr. Julie Ann Freischlag, the chief executive of Wake Forest Baptist Health and dean of Wake Forest School of Medicine said: "The rare environment of research, education, analytics and health sciences expertise has catalyzed more than 150 companies and attracted almost 4,000 employees. I am so enthused for the future of this unique 300-acre innovation district and we welcome others to join us."

Pleasants of the Innovation Quarter said that the city of Winston-Salem is fortunate that innovation is happening in other parts of the Winston-Salem community, not just within the boundaries of the Innovation Quarter. This is the result of "the deepening innovation ecosystem that has taken root."

"From Winston-Salem State University's growing science and technology neighborhood on its campus to efforts like Winston Starts providing low-cost startup space, to Flywheel and Venture Café, the ecosystem has grown exponentially over the last decade," he said.

He said that their challenge now centers on how they keep these elements connected "so that people, businesses, non-profits and institutions pursuing opportunity here know where the resources are, how to access them and building connectivity between them all."

He said they must continue to foster an environment that creates, attracts, nurtures and retains businesses and entrepreneurs.

Pleasants said: "Necessary ingredients for this effort include: fully utilizing available talent and providing training, capital and space at all levels — from startups to established companies — and broad-based community support. Also needed are robust networks for collaboration, experimentation, inclusion and diversity. The Innovation Quarter has enjoyed remarkable success, but creating a sustainable, vibrant knowledge economy is an ongoing work in progress."