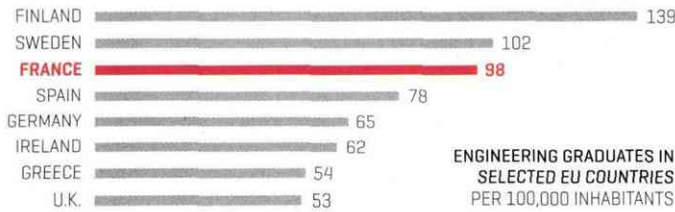




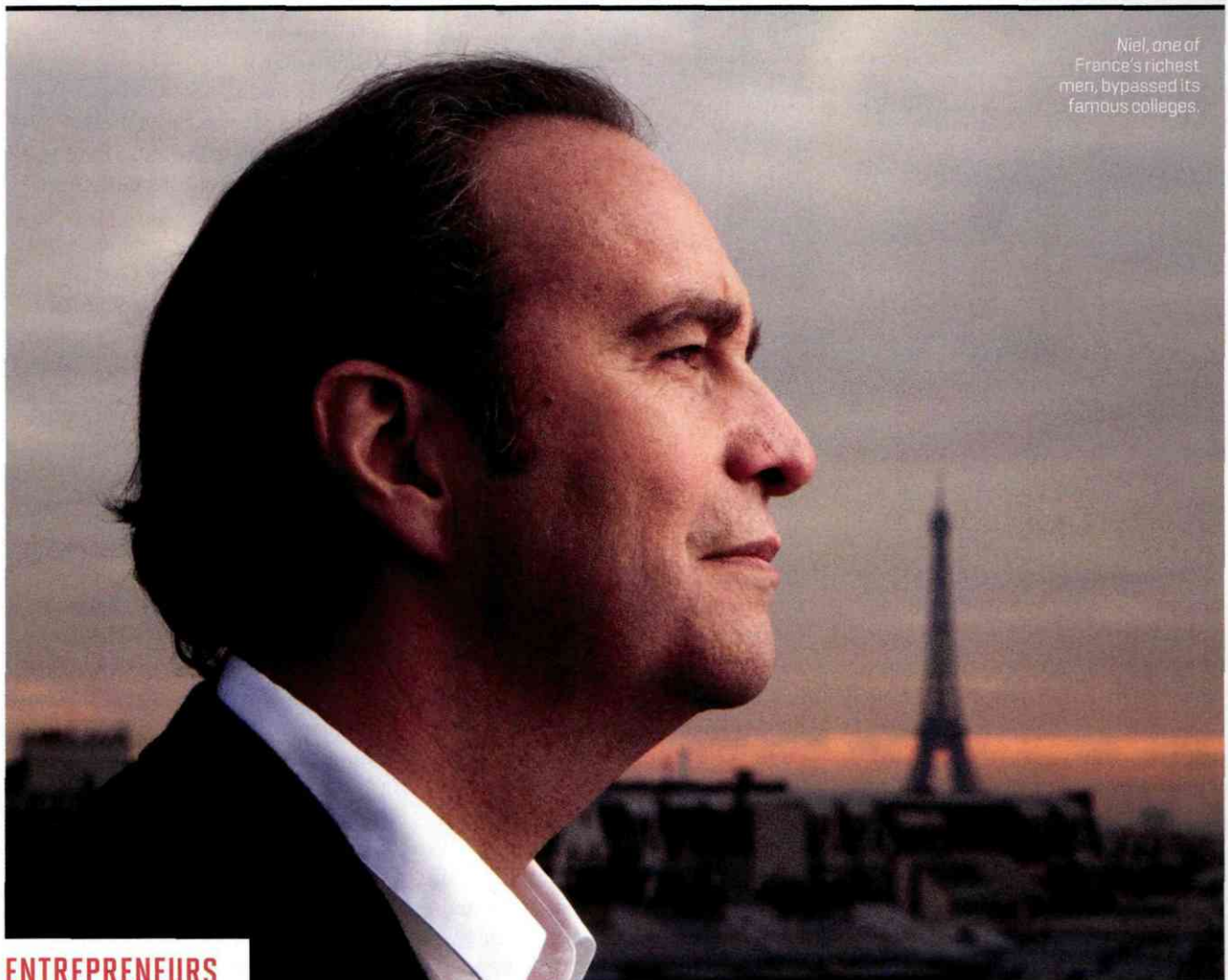
ENGINEERING CHANGE

Among major EU countries, France lags only two nations in percentage of engineering grads. The U.S. produces only 43 engineers per 100,000 inhabitants.



ENGINEERING GRADUATES IN
SELECTED EU COUNTRIES
PER 100,000 INHABITANTS

TECH



Niel, one of France's richest men, bypassed its famous colleges.

ENTREPRENEURS

A New French (Tech) Revolution?

Telecom entrepreneur XAVIER NIEL wants to shake up his home country's education system. *by Vivienne Walt*

A TALL, MIDDLE-AGED man is propped against a wall inside a building on the gritty northern edge of Paris. He's deep in discussion with a young woman sporting bright-green hair tied in pigtailed; she's sucking on a neon-blue lollipop and driving home a point to him with her hands.



“There’s a lack of social mobility. If you are the son of a doctor, you will be a doctor.” —Xavier Niel, CEO and founder, Iliad



Niel, photographed with some of his students

The man listening intently to the artsy-looking twentysomething isn’t a talent agent or even a college professor—though he’s keenly interested in education. He is Xavier Niel, one of the richest people in France (estimated net worth: \$7.8 billion), who achieved his wealth by disrupting his country’s telecommunications industry. Now Niel, 46, wants to upend another French institution: its notoriously rigid education system.

In September he opened a programming school called 42, a name derived from the 1970s classic *The Hitchhiker’s Guide to the Galaxy*, in which the answer to life’s mysteries is always 42. The school, in northern Paris (where *Fortune* found Niel chatting with students), breaks almost every rule of French matriculation: Tuition is zero. So, too, are prerequisites. Of the 70,000 young French who took 42’s application test, about

40% were high school dropouts. To underscore the school’s edgy feel, Niel (pronounced “nee-el”) had a pirate flag hoisted outside the building.

Niel says he was inspired to start his school not only because French companies report a chronic shortage of high-tech talent to hire, but also because some 200,000 youths drop out of school each year. Many, including Niel, believe that is because French education focuses on formalized, nationally controlled testing that favors workhorses over creative geeks and maverick innovators. The country that once churned out geniuses such as painter Pierre-Auguste Renoir and composer Claude Debussy has struggled to create a Mark Zuckerberg or Steve Jobs.

Niel sees technology skills as a way to even the playing field in France, not just for disadvantaged kids but also for middle-class and

elite students who want to explore different career paths. “There’s a lack of social mobility,” he says. “If you are the son of a doctor, you will be a doctor.” By contrast, his new school is “a little subversive,” he says with a delighted grin.

Niel knows all about being subversive. He was raised in the modest suburb of Créteil, a far cry from Paris’s majestic avenues. And while the great majority of French CEOs come out of the *grandes écoles*, the equivalent of the Ivy League, Niel skipped college altogether and holed up at home with his computer, coding. “I started literally in a garage, alone,” he explains. “I had some luck.”

Niel developed sex-chat software (he was 18, after all) and other communication tools, which he sold to tech companies that provided content for France Telecom’s groundbreaking Minitel online service. At 26, he created France’s first ISP, WorldNet, and sold it for about \$55 million in 2000. In 1991 he launched Iliad, the first French company to offer a “triple play” TV-phone-Internet service, naming it (in English, no less) Free. Last year Niel won the bid for France’s fourth mobile service and launched Free Mobile, offering a floor-smashing €20 (about \$28) monthly plan for unlimited calls, far cheaper than other French services.

His competitors cried foul, but Niel couldn’t have cared less. Iliad’s market cap has ballooned 11-fold over the decade, to €9.8 billion (\$13.5 billion), making Niel, who owns 55.3% of Iliad, immensely rich. Yet despite that (and even though he now owns a sizable chunk of France’s ultimate establishment newspaper, *Le Monde*), Niel retains his outsider



“He’s very un-French, but maybe that is why he has succeeded. He doesn’t accept the establishment’s state of mind.” —Christophe Roquilly, EDHEC Business School



Niel and his 42 co-founders, who hold up four fingers on one hand and two on the other.

image among French execs, having smashed his way into the elite. Niel is smart enough to know that image works to his advantage, as he throws his energies into new projects; his other company, Kima Ventures, invests in 100 startups a year.

“He is very un-French, but maybe that is why he has succeeded,” says Christophe Roquilly, a professor at EDHEC Business School in Lille. “He doesn’t accept the establishment’s state of mind.”

An antiestablishment culture pervades Niel’s school. During a recent boot camp for about 3,000 programmers, the floor was littered with inflatable mattresses and soda cans from students who’d hopped trains to Paris from the hinterlands and bunked there for weeks. About 1,000 will make the cut for a three-year

programming course that begins in mid-November. Even then there will be few teachers or classes. Students sit in warehouse-size rooms at Apple computers, creating whatever program they dream up, in a kind of giant hackathon.

Not everyone is sold on the idea. Government rules dictate that since 42’s students need no high school diploma, the three-year courses will not have degree status. Wannabe students seem unconcerned. “I’ve been earning the SMIC [minimum wage] in different jobs for years,” says Clément Aupetit, 26, who did not finish high school. “This might open doors.” Conservative French corporations could be wary of recruiting Niel’s new army of coders. “Opening themselves to different profiles will be a big leap

Niel’s Words of Wisdom

ON STUDENTS

“When these students ask, ‘Can you help me?’ we say, ‘No, you have to find the information yourself. You have it all here.’”

ON FRANCE

“We [in France] had the competitive edge in digital education, but each year France’s digital ranking drops.”

ON HIS SCHOOL AND INVESTMENTS

“You have to set up an ecosystem. We try to help all which is Internet related.”

for them,” wrote one blogger on the French site Rude Baguette. Niel has not exactly ingratiated himself with France’s elites. He was once an investor in a chain of sex-toy shops; he spent a month in jail in 2004 on charges that he brokered prostitutes from his stores. The charges were later dropped.

But Niel is optimistic. If just a few students make it, he says, his investment—about €70 million (\$96 million) so far—will be worth it.

And besides, Niel is already at work creating his next project, 1000Startups, which he claims will be the world’s biggest incubator and will open in 2016. “We don’t think we can change everything in France,” he says. “But we’ll have some impact.” There seems no better person to make that happen. ■