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Computer wizard: Michael Bletsas, pictured in the hills above his beloved Chania in Crete in early August, is a shining example of a young Greek who went abroad to further his studies, excelled professionally and is now internationally respected

As Michael Bletsas tells *Business File's* **Vanessa Alexakis**, when he saw an issue of *Wired* magazine at a newsstand in Boston 15 years ago, he thought about whether to buy it or not. It featured Nicholas Negroponte on the cover, with a large article on the 10-year anniversary of the MIT Media Lab, and this intrigued him. Bletsas, who was working as a software engineer at the time, decided the money would be well spent if he wanted to find out more about Negroponte's cutting edge work. It was arguably the best investment Bletsas ever made as the magazine also had a job posting with the Media Lab.

## Connecting the future

*Internationally-renowned computer wizard Michael Bletsas talks to Business File about the fast-developing computer and telecoms industries, as well as how Greece can overcome the current financial crisis and emerge stronger in the long-term*

**Today, computer wizard** Michael Bletsas is best known for his work with the MIT Media Lab, where he serves as director of computing systems, designing and maintaining super high-speed networks and very elaborate server setups for the Lab's state-of-the-art technology experiments. He has also taken a hand at providing Patmos with a wireless network back in 2000, co-created the award winning XO laptop (the so-called \$100 computer for disadvantaged children around the world as part of the "One Laptop Per Child" initiative), alongside MIT Media Lab co-founder Negroponte, and was invited by Boston Mayor Thomas Menino to join the city's wireless

task force in 2006. In June this year, Bletsas also became an independent non-executive director at OTE, the Hellenic Telecommunications Organisation, at the request of the Greek government.

On August 3, Michael Bletsas spoke to *Business File* at his birthplace of Chania, Crete about his new role at OTE, whether he is considering taking a more active role in Greece's tech industry as some pundits say, and how he believes Greece can overcome the crisis and put its best foot forward.

**You are now a board member at Hellenic Telecommunications Organisation, OTE.**

**How can we move forward, become more competitive and cutting-edge in telecoms in your opinion?**

We need investments in next generation access networks and a forward-looking regulatory environment that will allow the Greek telecommunications market to evolve in a healthy manner. When it takes more than two years to get a permit for a cellular antenna and we still don't have a final framework for "rights of way" for telecom infrastructure, just to name a couple of examples, it makes investing in next generation networks very challenging. So the two are very much connected. We also need innovation in services, which does require a huge cultural shift, especially when it comes to Greek companies and their organisational attitudes towards embracing new ideas, as well as failure and learning from it.

**Are there too many players?**

Yes, there are too many players, and also competition happens in a very peculiar manner. For example, on one hand you have OTE's competitors selling service "bundles" below cost and on the other, OTE's service packages are often being held for months for approval by the regulator who puts them through an opaque process to determine whether prices reflect costs. The end result, though, is that we currently have a telecoms market focused on price wars on a dying line of business, like fixed telephony, instead of competition in new services. Pretty much everybody is selling services below cost, trying to gain some market share from OTE, aiming to make themselves more desirable before the unavoidable consolidation. This is not the way to create healthy competition for the long term. I'm sorry. This made sense five years ago when you had a monopoly on the market, but this creates disincentives for network investment. Right now, there is no solid plan on how to move to a next generation network that will allow all these new services to develop and flourish.

**What does the next generation network look like?**

In Greece now, the only ways to reach the consumer is either through copper wire or via mobile; there is no other way. We have to get a fiber access path to the consumer sometime in the near future. I don't think that there has been a serious discussion and plan as to how to move forward realistically. OTE has to definitely move in that direction one way or the other. Obviously, in business the important parameter is always tim-



Proud moment: Michael Bletsas in 2006 shows George Papandreou, then leader of the opposition, the so-called \$100 computer, which was part of the "One Laptop Per Child" initiative

ing. There is no question that OTE will have a fiber access network at some point. The question is what is the desirable point? Should we push it forward? Personally, I think we should. What is the incentive structure in the market that will allow people to invest? We really have no luxury of delaying that discussion right now. I think that what is happening right now is focusing on competition in the past, which is the worst thing that can happen. That's my main fear. As far as OTE is concerned, any telecoms provider has to be innovative, extrovert, and demonstrate operational excellence. I think that OTE is a very extroverted organisation, that's one of the main reasons that Deutsche Telecom became a strategic investor in OTE. On the other hand, there are serious problems to address in both the innovation and operational excellence departments.

**Are you considering taking a more active role in OTE?**

I'm a board member at OTE and I won't do anything that isn't in the best interest of the company. If, in the future, there is a need for a more active role and I totally believe that I'm the best possible fit, sure, I will consider it. We all have the responsibility at this very critical juncture to give everything that we can.

**"I think that OTE is a very extroverted organisation, that's one of the main reasons that Deutsche Telecom became a strategic investor"**

**Some people would like to return to Greece, to offer their services, but they believe that Greece can't change, that Greeks are stuck in a rut and things cannot change. What do you say to them?**

I don't believe that. Greece has changed tremendously over the years. We tend to be very whiny about what we are. But look at certain real-life indices over the past decades. Remember where we started from immediately after the Civil War. We moved forward, maybe not as much as others, but we moved forward a lot, in ways that admittedly were easier back then. Look at what is happening in China right now: they have great growth in an environment that is totally absent of a normal institutional framework. Their institutions are lacking, to put it mildly. Something similar happened to us in the '50s and '60s. We had great economic growth without institutions.

Our strategic political mistake in the last couple of decades was that we thought that we could follow mature developed countries without first developing a mature institutional framework. We thought we could tag along, and in the process, slowly, there was going to be a transfusion of institutional maturity. That didn't happen as fast as it should. We had the exact opposite effect. Lifestyle became our main driving force, in society as well, and the whole combination acted very

negatively. Essentially, whatever moral framework existed in the operation of the economy and society was eroded instead of maturing. That is the problem we still have.

If you look around the world, there is no developed country that doesn't have a very stable, mature, democratic environment. This is very important. We have all these discussions about how we need strong leaders who will go like bulldozers and open the way. I don't believe in that. I believe in a strong institutional framework and an active, engaged civil society. Unfortunately, that doesn't happen overnight. It happens over a generation, and Greeks are not patient. We had major real increase in income and even bigger increase in consumption, but unlike for example what happens in the US, where people mortgage themselves, here we mortgage the state. Our way out isn't going to be as easy or quick, and we can't really accept that. For example, the government is less than a year in power, and people say "Oh, they haven't done anything; they're going too slowly. They came in to fix everything. Where are the results?" I think that many people in the government do try very hard, and the results are going to show ten years from now if we play all of our cards right. There is no easy way.

**Part of the problem is that in order to get the loan from the European Union and the International Monetary Fund, we've agreed to do certain things within a certain time frame, but some argue that curbing spending so drastically will dampen growth.**

I can't see a way in an economy that's 73% consumption driven to drastically curb spending in a sector (the public sector) that's probably 50% of the economy and not have a recession. There is no way. There is also no way to perpetuate the "vested rights" myth and keep paying salaries on borrowed money. The flip side is that in the past we had economic growth by creating mechanisms that weren't sustainable. That's what we knew, essentially creating growth by giving various types of subsidies. Easy money is gone now. We have also made progress. It would be a mistake not to see that. When I left for the US, entrepreneurship was a dirty word. It's not such a dirty word today. It's nowhere close to where it should be, but we have made progress.

**But, how do you see growth happening in Greece if there is more taxation? Won't companies shy away from investing if they feel the tax regime will keep on changing?**

Growth is being hampered by taxes, but it's hampered much more by the lack of a level playing field. It is what we said before about a mature stable institutional framework. In the presence of such a framework, I tend to believe what former US Chief Justice Oliver Wendell Holmes said: "I like paying taxes. With them I buy civilisation." Obviously, I agree with you that we can't keep changing the rules. Stability is paramount; on the other hand, we are in the middle of an emergency right now. Also, this is a very, very critical juncture for the country. Unfortunately, most of us are spending our time pointing to the person next to us, saying: "She has to pay first before I do." Instead of: "we all have to pay and we have to start paying our dues now, one way or the other."

**"I tend to believe what former US Chief Justice Oliver Wendell Holmes said: 'I like paying taxes. With them I buy civilisation.'"**

the reason to invest in Greece right now is that if you make the effort, you can end up with a very good result. There are opportunities. The reason to invest in Greece right now is that you take a long-term view.

**Greece is going through a very difficult time and will be for a while according to the experts. How do you attract people like yourself to come back or stop capable people from leaving – the brain drain?**

First of all, in this day and age it is easy to "leave" but not really leave. It is also important that young people get exposed to other cultures, and in our case it is especially important for our citizens to have lived in institutionally advanced environments. We have to take advantage of those elements so that we keep our Diaspora feeling that it is part of the same society. Then it becomes easier for people to jump back. For those that make the jump, it is important to smooth out the cultural shock; for example, it would go a long way if we tried to enforce the rule of law in our universities so that new faculty members who just returned from abroad don't feel that they have landed in the jungle.

**In addition, shouldn't the state provide a more hospitable environment in general? Shouldn't the state not be over-taxing, for example? And can we really get rid of all that bureaucracy?**

"Overtaxing" is a very subjective term. Compared to advanced economies, I don't think that our tax rates are high, especially when you take into consideration the expectations that the average Greek citizen has from the state. We're the last Western communist economy as far as statism is concerned. And, yes, as a result, there is too much bureaucracy which forces you to wait for years and go through so many signatures to get things done. The best thing the government can do is to concentrate on making the core services that the state provides as good as possible – and that's the most socialist thing also. To cultivate the institutional framework, to provide a good health care system, a good educational system that gives equal opportunity to everyone to the extent possible, a reliable safety net, to keep our eyes open in defense and security and to get out of the way everywhere else.

It's not the government's job to replace civil society. It's not the government's job to tell entrepreneurs what they should do. It's the government's job not to be in the way and to provide a fertile environment for



Cretan rebel: Michael Bletsas stands below a statue of Cretan revolutionary Spiros Kayales Kayaledakis at the tomb of Eleftherios Venizelos at Chania in Crete

**I agree with you, but what about foreign investment? Why should someone invest in Greece at this juncture?**

I think with these drastic changes playing out,



Photo: Business File archive

Forward thinker: Michael Bletsas talks to *Business File's* Vanessa Alexakis in one of his favourite cafes in Chania during an interview on August 3

beneficial activities. Unfortunately, most people in Greece are still waiting for the government essentially to design the economy, decree the institutions and provide everybody with a personal “cop” to make sure that they play nicely. That’s the problem. That mentality is out. It’s considered passé even among old-school socialists. But if you say what I’m saying, then you’re considered a right-winger, neo-conservative, libertarian, pick your own fruitcake. If you say that the most socialistic thing that you can do is to make sure that every dime that goes into the public coffers is well spent, then you are a right-winger. That’s the myth substrate – the moral substrate – that we have created over here. I’m sorry. There’s no easy way out of that. It will take a generation to undo. There is no other way.

We are not going to genetically modify our hens to create golden eggs in order to get ourselves out of the current economic situation. We are going to work ourselves out over the years, by providing solid education to kids and a stable, predictable environment for economic activity. You saw that – very correctly – the first thing the Education Ministry tried to address was not higher education, but elementary education. You have to take a long-term view and I think that many people in the current government take very brave steps at their personal, political expense for their successors to reap the benefits. Myths take a long time to dispel, and we all have to do our best.

**Late Prime Minister Andreas Papandreou once said in an interview with Nicholas Gage that he had a vision of Greece becoming the Silicon Valley of Europe. Can you see that sort of thing ever happening?**

It could have happened in the past, but it did not. A variation of it is still a worthwhile goal. We have moved from programming silicon transistors to programming cells, which is where the next growth industry is going to come from. What people don’t understand is how close the computer industry is to the biotech industry in mentality. And, how much the biotech industry is relying on the computer industry. The computer industry has become a utility that gives growth to the biotech industry in the same way that electricity gave growth to the industrial economy.

I think we should look forward at this point in time. Both of these things rely on software. It’s just that the platform is different. On one side, software is running on transistors. On the other side, the software runs on cells. We have the seeds. If you go to FORTH (The Foundation for Research & Technology - Hellas) in Herakleion, there is very interesting work happening there. But, we still don’t have the entrepreneurial culture here to take these things and create companies on a larger scale so that they become a viable goal for people. Still in Greece, the most viable businesses are old-line industries where we have been traditionally successful,

such as tourism and shipping. Yes, we have those, but we can’t still be paying subsidies to people to build hotels. I’m sorry, it’s done. Whatever we built, we built.

**Where do you think funds should be redirected, in which cutting-edge sectors?**

Besides software, which is a required competency for every advanced economy today, I see two directions. One is efficient energy and the other is biotech. In energy efficiency, we have to look into everything that is around us. We have quite a few innovative companies in the area. Because of the incentives in the energy industry, we are not efficient. In the electricity industry, for example, the incentives for the operators are still to create bigger and bigger factories, manage demand by turning on increasingly more expensive factories when needed. From a business perspective, their customer incentive was to push them towards more and more consumption because they wanted to have a taller baseline. So, it’s build and build more of these very polluting factories. In the US too, coal is a very big component of the energy production. What we have to do is go to a different model, where the central utilities become more of a distribution and flow management industry, and production becomes a lot more distributed, especially when you’re talking about renewable energy – you have to have the focus shift from efficient mass production to very efficient and dynamically adaptive distribution. ✘