



Lean Enterprise Institute



Instituto Lean Management

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Follow the Learner

The Lean Bakery

*Eliminating waste to get closer
to your customer*

by **Juan Antonio Tena** *and* **Emi Castro**

with **Roberto Priolo**

Lean Enterprise Institute, Inc.
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Foreword

Around a year ago, Juan Antonio Tena called me to discuss his latest experiment: making all the bread a 365 cafe needs—and perhaps even the pastries—in the workshop of each shop. I couldn't believe my ears, and asked him if he had really thought this through. After all, in the 365 bakery factory it only took three people and one machine to produce the 12,000 to 19,000 loaves of bread the business sells each day. Surely, making bread in each 365 shop would cost more!

In response to my skepticism, Juan Antonio playfully said: “If the quantity of flour, water and bread starter is the same, and if the energy we use to produce one baguette is the same, then the only thing we need to think about is making the processes more efficient, no? Here we go, a bit of work to keep ourselves entertained! Besides, shouldn't you be the one advocating for smaller batches and getting closer to the customer?”

Oh my, what a lesson I was taught that day. He was completely right, of course. We didn't know how to get there, but we had a challenge on our hands. Another one.

Indeed, Juan Antonio always has invaluable lean lessons, and over the past few years, he has become one of my teachers. (I have had a few, starting with my father Lluís—the author of *Volver a Empezar*, the book that first brought lean to 365.)

I also remember vividly how, when lean process improvement was first brought to the shops, Juan Antonio's wife and business partner Emi Castro kept repeating that she didn't want her

niñas (the saleswomen) to lose their joy of selling. She always proved eager to get her hands dirty and show them, time and time again, how to work with colleagues and how to serve customers. She never lost her temper and determination, not even when facing the strongest resistance (this is easier said than done). Although I must admit she did tell me off once or twice for using “bad words” (Japanese terms) with her girls.

“Enough with the Japanese. Things are over complicated only when we make them so,” she would tell me. She is a specialist when it comes to understanding how lean can initially take people aback and how one can help them to understand. She has taught me a lot in this sense. I recommend you follow her advice very carefully.

I am not a character in the story told in this book—just a very fortunate spectator, and at times, an advisor for all the crazy, yet fundamental lean experiments 365 has and continues to run. But as a spectator, I have the privilege of knowing all the characters of this lean tale, and I would like to introduce them to you.

We have Arantxa, the engineer who with intelligence and perseverance, first helped lean take root at 365. (Did anyone tell you it takes years?!) And then we have Eva and Conchi, the two extraordinary shop supervisors who took it upon themselves to translate the experiments we devised into meaningful PDCA for the shops and the people working in them. (Deming would have been proud!) And then Agus, the restless and never-satisfied Operations Manager who finds any gaps that open up

and that we struggle to close. Finally, Unai, the engineer who, as production manager, painstakingly tends to the “365 machine” to ensure it never stops working and improving.

Studying an organization like 365 isn’t easy, and describing it in a book isn’t either. The first time I read this manuscript, I had the impression that the transformation had been described in a way that some could deem simplistic. I really feared that readers in more complex—or different—situations might be prejudiced against this story.

However, looking back at my experience with 365, I quickly realized that the only “simple” thing about their story is the way in which the team was able to see their processes and current state—through the previous veil of complexity—and to create a strong vision of what 365 could become. Lean teaches us to shed the unnecessary and simplify, to extract the essential, and then work tirelessly to improve it. As you’ll find out in this book, that really isn’t easy.

I hope you’ll let the “365 spirit” inspire you—you won’t regret it. Enjoy the book and, who knows, maybe even some of the 365 products during your next visit to Barcelona!

Happy reading and *bon profit*.*

Oriol Cuatrecasas
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**Enjoy your meal* in Catalan.

Introduction

We have a saying here in Spain: “*A pan duro, diente agudo.*” Literally, it means, “When the bread is hard, use your sharpest teeth.” Loosely translated, this proverb encourages us to tackle difficulties with the right tools.

Running a business is no walk in the park. The worries, the responsibility, the daily problems, the long hours—no matter what type of business you are in, whether health care or manufacturing, retail, or software development, you are likely to face difficulties in your day-to-day life.

The business I am in, as the proverb might suggest, is bread making. I am the owner and CEO of *365.café*, a family-owned chain of bakery shops in Barcelona. We began this business in 2000 and have built it into a thriving enterprise employing around 400 people. Each day in our 100* shops we sell thousands of loaves of bread, pastries, cakes, and sandwiches, to mention but a few of our products. We produce most of our daily supply of bread and pastries in a bakery factory—our *obrador*—located west of the city center. Having opened more than two dozen new shops in the past two years, we find ourselves currently experiencing an unprecedented rate of growth.

It wasn't always like this, of course. We have certainly had our fair bit of business challenges to overcome. To paraphrase the proverb, when my wife Emi and I started the business, we thought our teeth were sharp enough, but we were wrong.

**at the time of publishing*

During the first few years, we were working extremely hard, but it wasn't enough. What we needed was a system to control our processes and make informed decisions on the next steps. That system turned out to be lean thinking, which has been at the core of our work for the past decade and has brought us great results. It has completely reshaped our culture, changed our business, and fueled our growth. Every day it opens new doors for us—showing us the way to go and making us a little bit better.

Many excellent examples of lean thinking can be found throughout the business landscape, so when Instituto Lean Management and the Lean Enterprise Institute asked me to write this book, I didn't quite know what to think. At 365, we spend so much time looking at the problems we find that we often forget about the good things. Sometimes it takes someone from the outside to tell us how far we've come since we opened our first bakery factory in a former barn. I had to take a step back and look at the bigger picture to understand why our story is worth telling.

What makes us so interesting is perhaps the fact that we are applying lean to something as run-of-the-mill and yet atavistic as the *making of bread*, the most elementary of foods. Or maybe it is the fact that we have cleverly managed to turn our bakery into a hyper-efficient factory supplying dozens of shops every day. Or maybe it's the incredible growth we have experienced, which has almost doubled the number of shops we have in the past five years.

Yes, the more I thought about it, the more I realized the many achievements we could use to present our story to the lean community. But what I think is really worth learning from our experience is our utmost belief in the power of experimentation; the things we have tried and the many mistakes we have made over the years have led us to where we are today.

We always hear that lean is a journey. I believe that at its core, it is a journey of experimentation, of continuous discovery, and of new and better ways of doing things. Our approach to lean is very practical. We don't use many Japanese words, and we don't always apply the methodology by the book. We have learned to live and breathe the fundamentals, and we work hard to adapt the tools to our changing needs and circumstances.

When I say “fundamentals,” I mean turning waste into value, which can be achieved only by focusing on customers and respecting employees. This is the basis of our approach to management, which we complement with the knowledge that we gain each time we solve a problem or make an improvement.

My sincere hope is that you will find this book inspirational and useful in further advancing your own lean journey.

Juan Antonio Tena
Barcelona, Spain
2017

1. The Problem to Be Solved

One night in 2012, we received an unexpected visit. All of a sudden, the police surrounded our factory and asked us to show them the “secret entrance to the basement.” They were convinced that we were employing illegal immigrants, and despite my telling them it was not the case, they insisted that they come in. They moved all the machines and spent hours looking for a basement that doesn’t exist, before apologizing for their mistake and leaving.

Weeks later we found out they had acted on a tip-off. Our competitors couldn’t believe that a factory as small as ours could produce so much and of such high quality. They thought we had illegal immigrants hidden underground working 20-hour days. Instead, what we had was an amazing system to organize our work—in plain view. That system is called lean thinking.

In a way, I can see how they would think we were cheating. The transformation we have undergone is massive, and sometimes even I find it hard to believe that a 7,000-square-foot factory can bake enough artisanal bread and pastries to supply 83 shops. What we have been able to achieve is extraordinary, especially considering how different things were when we started off and how full of obstacles our journey has been.

And yet, as impressive as our turnaround might seem, people who visit us often say that lean is “real” here: to new challenges we respond with new changes, and we never stop improving and evolving. Our approach to change is based on

running experiments and learning from them, and when you view our journey from that perspective, you will see why lean thinking was the right option for us.

But before we delve into what we did to transform the organization, I think it's important to briefly take you through the history of 365 and explain the problems we had been experiencing before we discovered and ultimately applied lean thinking to our processes and way of working.

How 365 Came to Be

I have been in the business of serving people for most of my life. When I was 12 years old, my family opened a café in Barcelona, called Bar España. I often helped my parents at the café, working with my mother in the kitchen and sometimes waiting tables. I enjoyed the contact with customers, but what I really loved was the work that went on behind the scenes in the kitchen—the true heart of the café.

The process of preparing food fascinated me, and I liked the idea that people could come in, eat what we made for them, and leave happy. My parents' work ethic was solid, and customer needs always came before everything else. For example, in the first few months we often received a call in the middle of the night from road workers who were paving the nearby streets, asking if we could prepare something for them. And we did. We went downstairs, opened the café, and started cooking—often for dozens of people at a time—at 3 in the morning.



The family business: son Agus, Juan Antonio, daughter Leonor, and Emi

Perhaps my parents' desire to do well was a consequence of how hard things had been for them in the past. My family left the Extremadura region to seek fortune in Catalonia when I was only a year and a half old. Life in much of Spain had become extremely hard after the Civil War of 1936–1939, but the city of Barcelona and the surrounding area had remained relatively prosperous, thanks to its industrial infrastructure and access to the sea.

The presence of large industrial groups boosted the growth of the city. SEAT was one of Barcelona's largest employers at the time. It was considered something of a Holy Grail: people

saw a job at the carmaker as steady income and a secure position for life. My parents wanted that for me—every parent in Catalonia wanted that for their child—and sure enough, upon returning from mandatory military service, I found a job at the company.

I worked at SEAT for a total of six years, as an apprentice at first and then as a production line worker making small metal components. I didn't mind the job, but I am a pretty restless person—a trait inherited from my father—and the comfortable 9-to-5 job soon began to feel like a constraint.

What I really wanted to do was go back to working in the family business and at some point even start my own company. So when SEAT eventually realized it had hired too many people and started to offer its employees the opportunity to leave and a severance package, I took the money and ran, so to speak.

At that time, my family was running the Bar España, in addition to a coach operator and a number of repair shops for coaches. (We are quite the entrepreneurial family.) I spent six years doing all kinds of jobs in the family businesses, until we decided to add another tile to the mosaic and opened a bakery. We didn't produce our own bread, we bought it from other bakeries and resold it. Business at the bakery seemed to thrive.

However, we had too many projects going and we relied too heavily on bank loans. When the economic crisis of 1992 hit we couldn't borrow more money to invest in the business and trouble ensued. The next five years were extremely difficult, as the business started to slowly but inexorably sink.

We were then running seven shops across Barcelona. In 1995 I had a fallout with my family and took over the ailing bakery business. But despite having fought hard—mostly by myself—the family shops drew their last breath in 1997.

Going through bankruptcy and being left with nothing were traumatic experiences. I struggled to come to terms with the fact that the business had failed, even though it had appeared to do well for so long. What had we done wrong? How had it happened? These questions kept nagging me and a sense of apprehension—not to mention guilt—started to grow in me.

I didn't see it at the time, but I now realize that we may have had the determination and a strong desire to succeed—we sure worked hard, day and night—but we lacked the necessary understanding of how to run a business. We knew nothing about accounting, purchasing, sales, etc., and had no process or methodology to guide us. In other words, we didn't have a solid basis on which to build our company.

Luckily, I am a very determined person—some would say stubborn—and more importantly, I am not afraid of trying new things and making mistakes. So I dusted myself off and decided to start all over again. In the meantime, I had met my wife Emi, and in early 2000 we opened a new bakery together.

I may have tried to fight it, but bread making is what I love and where my experience is, so it made sense to go down that path again. That's how 365 was born. Little did we know that 15 years later we'd be running a citywide chain of 70 shops, 55 of which are franchises, with great prospects of growth.

An Epiphany

As far as humble origins go, I think 365 takes the cake. When Emi and I started off from zero in 2000, we operated out of a former barn. At the front was a small square room, connected to the production area in the back by a narrow and very long corridor. At the time, we weren't even selling bread on site—that came later when I realized it was silly not to sell, when we had a space overlooking the street—but simply delivered it using a friend's tiny old car.

We had so little money at the beginning that we didn't even have a compressor fitted on most of our freezers. At times, we struggled to pay for our weekly 500-kilogram supply of flour. Today we use around 4,500 kilograms of flour *every day*. To think of the growth we have experienced over the years still makes my head spin sometimes.

Space in the barn-bakery was so limited that each night we had to disassemble the shop at the front and use that space as a warehouse. We used to load the shipping trucks right in front of the building, using two little counters on wheels placed one next to the other as a loading dock. All in the same place we would bake the bread, let it cool off near the door, package it, and load it for distribution. Only in the final three years in the old barn-bakery could we afford to rent an adjacent space overlooking the back street. Moving the loading activities there made things easier for us, as the van didn't have to stay parked in front of the entrance to the shop.

We had nothing at the beginning, except the determination to make it. We were driven by our desire to succeed, our passion for running a business, and, quite frankly, by our need to put food on the table—there is no incentive quite like it.

We worked night and day with dedication and enthusiasm, but the memory of the hardship I had previously endured was still fresh in my mind. As 365 took its first steps, I felt the same sense of apprehension I'd felt after the family bakeries had gone bankrupt. I began wondering again how something seemingly successful could go down the drain so easily, especially after you put your heart and soul in it. I grew increasingly restless and convinced myself that the answer was out there somewhere, which encouraged me to look for a solution. I didn't want to go through what I had in the wake of the 1992 crisis.

By 2003, we had three shops and I had the idea to start making coffee in one of them. People were a bit reluctant. ("A bakery is a bakery; a café is a café," they would say). But the experiment turned out to be extremely successful and we replicated that model in the other two shops.

It was becoming clear, however, that the more the business grew, the more complicated things got. We were working all day long, seven days a week. The only family time we had was a late lunch on Sunday in the only place with a kitchen that was still open at 4pm, a Chinese restaurant.

But this wasn't the first time I had done so much hard work, and I was painfully aware that it would not be enough to keep the business afloat, let alone make it a success. I realized that

we couldn't keep opening shops without having a proper system in place that could give us the foundation to support the growth of 365. I didn't want to leave things to chance, so I started to read every book on business and management that I could find, including every book by Eli Goldratt.

In 2003 I read *Lean Management: Volver a Empezar* by Lluís Cuatrecasas, then president of the Instituto Lean Management. This book tells the story of a company's journey from traditional management to lean management. It provided a framework that I could potentially follow to try to bring some order to the way we worked—and hopefully put my anxiety to rest.

I knew that the ideas suggested in *Volver a Empezar* wouldn't solve all our problems. But I knew there had to be something more than just hard work, sweat, and tears to make a company successful. That book was telling me that “something more” was lean thinking. The novel showed me the way, but it was still a novel, and it didn't tell me how to practically apply lean. I wasn't confident enough that I could do it, but my curiosity was now alive and actively pushing me to learn more.

Meanwhile, 365 was growing fast, and my sense of unease was growing with it. In 2004 we had six shops and a year later the number had risen to nine. At that time, we started to plan for what I often called our *obra faraónica*—our “pharaonic project”—to expand the production area of our factory. This entailed expanding to the upper floor of the building, installing a freight elevator, and buying a number of freezers. This type of investment was massive for a small company like ours.

A Momentous Purchase

As it happened, right before starting the expansion work, we went on a five-day vacation to Galicia—we hadn't been away in years. At the airport bookstore, instead of grabbing a thriller that would have surely gotten my mind off work, I decided to buy a chunky hardback book titled *Lean Thinking*. I'm sure you can relate to this, the fact that I would be away didn't mean that I couldn't still think about work.

That book was one of the most important purchases I have ever made. I read it cover to cover in a heartbeat; it was like a light went on in my head. What I loved about it was the fact that it was full of examples of real companies achieving real change. *Lean Thinking* seemed to complement what I had learned from *Volver a Empezar*. At this point, I realized that lean thinking was the foundation 365 needed, and reassuringly, I now had a way of applying those ideas.

During the vacation, I couldn't help but think that the big investment to expand the production area was a bit reckless and perhaps not necessary just yet. I realized we could improve so much in the factory first. The moment we got back to Barcelona, I called off the project and started to take my first steps toward a new, leaner system.

Lean brought us the most extraordinary and radical changes I have ever witnessed in a business. The incredible rate of growth we have experienced would not have been possible without lean. In 2005, when we started to apply lean thinking, we had nine shops around Barcelona; today we have 83.

We are not perfect, and the gears often screech, but lean has no doubt given us a completely different perspective. Every time we are unsure, we have something to turn to. The methodology doesn't give us answers, but it provides us with the tools we need to get to those answers ourselves.

Over the years, I learned that if a company is to thrive it needs a strong system in which people can blossom—besides hard work, spirit of sacrifice, and an iron will. Indeed, this is the answer to one of my existential questions.

Sadly, my restlessness is still not completely cured. I have actually never stopped looking for more. Sure, lean has made 365 more flexible, agile, and adaptable. But even now that we are implementing it across the whole organization—from the factory to the shops—I still keep my eyes wide open. There is no guarantee that what works today will still work tomorrow. Isn't there always a better way of doing things?