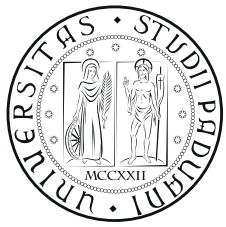

Università degli Studi di Padova

Scuola di Ingegneria

Laurea Magistrale in Ingeneria Informatica

Tesi di Laurea

Young entrepreneurs in Veneto

Empirical search for innovative companies run by under-35s

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Laureando: Andrea Marcato

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Preface and Acknowledgements

This master thesis is the result of my research effort started twelve months ago at the Department of Industrial Engineering at the University of Padova.

Research on youth entrepreneurship is quite distant from the common subjects in computer engineering education, yet this thesis deals with something many engineers face sooner or later in life: starting a company or being part of one. Nevertheless, writing this report has posed many challenges, most of them related to my non-economic background. First, for the literature review I had to dig into papers both from researchers on managerial science and from Italian and international economic institutions. Then, a lot of effort has been put on the data filtering phase in order to find interesting companies, but trying to arrange interviews on the phone and conducting them in person have been the most demanding tasks. In my opinion, I succeeded to overcome these challenges, both on an academic and on a personal level.

First and foremost, I would like to thank my thesis advisor, Professor Moreno Muffatto, not only for his guidance throughout this research, but also for exposing me to entrepreneurship and business thinking in the first place. You enlightened my perspective on engineering with a new point of view, which I am confident will make the difference in my future career.

Then, sincere gratitude goes to Enrico Capiozzo, Paolo Franceschetti, Pieremilio Garbellotto, Marco Lucchetta, Michele Odelli, and Matteo Villa for their inspiring interviews. A large portion of this thesis could not have been possible without your helpful insight.

I would like to thank all the people who have supported me in the writing of this work: thanks to Matteo Bano, Alessandra Benazzato, Federico Fanton,

Camilla and Marta Favaretti, and Yohan Saparamadu. Thanks to all my close friends for being there: if you are reading this, you sure are one of them.

Last but not least, I want to thank my family and relatives for their continuous support and encouragement during this journey.

The author.

Summary

The purpose of this thesis is to investigate on the entrepreneurial world in Veneto, with particular attention to first-generation entrepreneurs, that is, people who started their own company with no family background. Also we will not neglect what we call "1.5-generation" entrepreneurs, namely people who do have a family background in business, but nonetheless started their own company to bring freshness and innovation inside or outside their family sector.

In chapter 1 we take a quick look at the reference frame of entrepreneurship, beginning with the conception of the entrepreneur in history, and the differences between first and second-generation entrepreneurs. Then we add some geographical context to the discussion and present the definition of entrepreneurship according to Italian law. We also briefly touch the macroeconomic situation of Italy and give some country-wide facts about young entrepreneurs.

In part I we introduce the tools and methods of our inquiry. We started from a dataset of 10,020 Venetian companies whose majority of shareholders was under 35 years old as of march 2013. Then we focused on companies in the sectors of manufacturing, consultancy, technology, research, and advanced services, and we centered our work on those that had a web site, so that we could learn more about their activities. Only a handful of 161 companies "survived" this filtering process.

Finally, in part II we present a deeper coverage of some of the most interesting companies, which is based on actual interviews of one or more of their founders.

Coccitech Srl is a young company aiming to bring innovation and freshness to oenology and agriculture. It was founded by Pieremilio Garbellotto and Marco Lucchetta as the result of their experience in the sector since they were children. The company has developed the software for a new generation of automated devices that perform enzymatic and spectrophotometric analysis on wine samples. Thanks to their higher precision and low cost, these analyzers allow winemakers to enrich their production process, which is traditionally based on experience and intuition, with a precise and reliable quality control. The company is also working on non-toxic organic fertilizers that act like vaccines for plants, and has projects for large-scale crop monitoring using unmanned aerial vehicles.

Drawlight Srl started as 3D visualization studio for architects and real-estate agents, but its founders Michele Odelli and Lorenzo Beccardo added animations, virtual sets, and augmented reality works to their portfolio. Drawlight has been the first company to introduce 3D-mapped projections in Italy, a techniques that allow to "paint" with light on three-dimensional objects by using a set of special beamers. This has been employed in promotional events for Riello Group, Porsche, Rabarama, and the municipalities of Padova and Vicenza. The company differentiates for the high quality of productions and the eclectic use of different technologies. Today Drawlight is investing more and more in its international presence, where its expertise is much more valued than in Italy.

Microlife Srl is a microbiology company that started with the cultivation of microalgae to make biofuel and then switched to food and cosmetics when its founder, Matteo Villa, realized he could make more profit in these sectors. Microalgae are an unicellular form of life that only needs light, water, carbon dioxide and some salts. Thanks to their chemical and nutritional properties, microalgae can be used as food supplement, or to make anti-aging lotions, or they can be employed as a natural device for water treatment. The company is mature enough to start thinking about scale, and its plans include developing a capillary presence in Africa to profit from the increasing demand of

functional food and personal care products. But Microlife is involved with Africa also for humanitarian purposes, as its products can be used to fight chronic malnutrition, an invisible disease experienced by millions of children in developing countries.

Solwa Srl is named after the idea of Paolo Franceschetti, a doctoral student in Environmental Sciences at the University of Venice. His invention is a compact greenhouse in which the natural cycle of water is reproduced and accelerated with the purpose of cleaning it from pollution substances. Polluted water is introduced in the module, gets heated up to 60℃ thanks to the energy supplied by a photovoltaic panel, and the resulting vapor is collected as distilled water. Drinking water is obtained by a remineralization filter. Franceschetti engineered the system to be more efficient than similar solutions and made it out of easily available components. With a low investment of few hundred Euros, families in countries with water supply issues can make their own water independently from a centralized distribution network. This innovation can also be applied to the food industry, agriculture, and in sludge treatment facilities.

Veasyt Srl is the result of the unconventional teaming of an aerospace engineer, Enrico Capiozzo, and a Sign-Language researcher, Lisa Danese. The company, now a spin-off from the University of Venice, is working on two main products: "Veasyt Tour", a web portal offering tourist guides for people with disabilities and "Veasyt Live!," a platform where users can find language interpreters and ask for their professional services remotely and in real-time. Video Remote Interpretation is a growing market in which Veasyt aims to be a top player.

Author: Andrea Marcato

Contents

Chapter 1

Introduction

In this introductory chapter we frame the concepts that surround the rest of the research. We begin with the notion of the entrepreneur in history, mentioning the differences between first and second-generation entrepreneurs. Then we add some geographical context to the discussion and present the definition of entrepreneurship according to Italian law. Finally we give a brief overview of the Italian macroeconomic situation as of the time of writing and we conclude with some country-wide facts about young entrepreneurs.

1.1 Definition of "entrepreneurship" and "entrepreneur"

Entreprenurship

The term "entrepreneurship" lacks a univocal definition. Its origin comes from the French language and can be dated back to the 16^{th} century. The first attempt to define entrepreneurship has been made by the Irish economist Richard Cantillon (1680-1734) who posthumously published his work "Essai sur la Nature du Commerce en Gènèral" (Cantillon 1755): there he writes about independent action, along with an ex-ante unknown return-on-investment.

A wider description was attempted more recently by Schumpeter (1883-1950), who coined the word *Unternehmergeist*, German for entrepreneur-spirit.

Source	**Definition of entrepreneurship**
Cantillon (1755)	Self-employment with an uncertain return
Knight (1921)	Entrepreneurship means generating profits from bearing uncertainty and risks
Schumpeter (1934)	The realization of new factor combinations –new products, new services, new raw material sources, new production methods, new markets, new forms of organization
Casson (1982)	Entrepreneurship involves taking judgmental decisions about the coordination of scarce resources
Hisrich & Brush (1986)	Entrepreneurship is the process of creating something of value by devoting the necessary time and effort, assuming the accompanying financial, psychic, and social risks, and receiving the resulting rewards of monetary and personal satisfaction and independence
Hart et al. (1995)	Entrepreneurship entails the pursuit of opportunity without regard to resources currently controlled, but constrained by the founders's previous choices and industry-related experience
Timmons (1999)	Entrepreneurship is a way of thinking, reasoning, and acting that is opportunity obsessed, holistic in approach, and leadership balanced

Table 1.1: definitions of entrepreneurship.

He then defines entrepreneurship as the "implementation or realization of new factor combinations in the form of new products or new qualities of a known product, new production methods, the opening-up of new sales markets, new organizational forms or new forms of procurement" (Volkmann, Tokarski & Grünhagen 2010).

On the basis of Schumpeter's works, a multitude of different entrepreneurship definitions have been subsequently generated. Although an in-depth discussion is beyond the scope of this work, table 1.1 shows a selected survey of definitions collected by Volkmann et al. (2010)

Nowadays the Global Entrepreneurship Monitor (GEM) focuses on the op-

erational aspects of these words and gives another worth quoting definition of entrepreneurship as “any serious attempt at new business or new venture creation, such as self-employment, a new business organization, or the expansion of an existing business, by an individual, a team of individuals, or an established business” (Bosma, Wennekers & Amorós 2012).

In summary, the following common traits emerge from the many definitions of the concept of entrepreneurship: *identification and exploitation of opportunities*, with special regard to product and process innovation, and *profit-orientation* taking into account the high risk associated with new-venture formation due to initial scarcity of resources.

Entrepreneur

The concept of entrepreneur has been discussed by many economists along the centuries. As in the case of the concept of entrepreneurship, Cantillon's 1775 work “Essai Sur la Nature Du Commerce en Général” is often quoted as the first case of discussion concerning the personality of the entrepreneur. The Irish economist considers landed property the source of prosperity and distinguishes between three types of economic agents:

- the land owner who is financially independent,
- the entrepeneur who exchanges goods at his/her own risk, and
- the person who is employed and has a fixed income.

According to Cantillon, the entrepreneur is characterised by *the readiness to take economic risks* and *the striving for profit*.

In Schumpeter (1934) more details are added to the picture, as he finds entrepreneurs the driving force for innovation and dynamism. The entrepreneur is not an ordinary manager, but the one who introduces something entirely new in the market turning inventions into products through a combination of work and capital. In fact, entrepreneurs are different than traditional managers or business administrators and entrepreneurship research has been trying

to understand their distinct role in the economy. Volkmann et al. (2010) group the approaches towards the activities of the entrepreneur into three complementary categories:

- *traits approach*: entrepreneurs exhibit distinct personality traits typical for opportunity discovery and exploitation,
- *functional approach*: entrepreneurs take on a specific role in society,
- *behavioural approah*: entrepreneurs show forms of behaviour more inclined to exploting new venture opportunities rather than administering or managing existing business operations.

The **traits approach** has been developed starting from the studies of David McClelland in the 1960s. His research focuses on the study of specific characheristics of entrepreneurs: their personality is thus seen as the embodiment of all traits, properties and qualitities of the entrepreneur as a human being. Typical personal traits are the following: *need of independence*, *need of achievement*, *readiness to take risks*, and *striving for social advancement.* (cit Klandt 1984). Another characteristic is the entrepreneur's keen readiness and capacity to learn; his/her source of inspiration are the most diverse: customers, suppliers, other entrepreneurs, employees and associates, successes and failures. However, some critiques point out that entrepreneurs are in fact a group of heterogeneus people and, consequently, that this approach is not well suitable to define *the* typical entrepreneur in terms of his/her personality: research efforts should rather concentrate on behaviours and actions.

The **functional approach** cosequently concentrates upon the role entrepreneurs take in market economies by transforming resource inputs into product or services outputs. This approach highlights the entrepreneurs's contribution to innovation in a variety of forms, including process innovation, market innovation, product innovation, factor innovation, and organizational innovation. Fundamental are also the tasks of discovering, evaluating, and expoiting all kinds of entrepreneurial opportunities.

Finally, the **behavioural approach** focuses on what entrepreneurs actually *do* as individual actors. Here entrepreneurship is demarcated by displaying a specific type of behaviour as opposed to other forms of, e.g., administrative behaviour. This approach has its roots in the works of Howard Stevenson, who originally suggested six simensions to differentiate between managerial-entrepreneurial and manageral-administrative behaviour:

- Strategic orientation (driven by perception of opportunity vs. resources currently controlled)
- Commitment to opportunity (revolutionary vs. evolutionary)
- Commitment of resources (multi-staged vs. single-staged complete commitment)
- Control of resources (episodic use or rent vs. ownership or employment of necessary resources)
- Management structure (flat with informal networks vs. formalized hierarchy)
- Reward philosophy (value-driven and performance-based vs. security-driven and resource-based)

1.2 First-generation and second-generation entrepreneurs

We refer to "first-generation entreprenerus" as to self-employed people who started a new venture on their own—and are the target of this study—while "second-generation entreprenerus" have a prior familiar background in entrepreneurship and either keep running their inherited family business or hold high managerial positions inside spin-offs or start-ups on similar lines.

Intuition suggests that children of entrepreneurs may have more positive chances in starting a new successful venture. Clichés include the following:

childhood exposure to a business-inclined *forma mentis*, actual work experience in a family business, with consequent managerial expertise, and access to family wealth as source of equity capital.

According to reviewed literature, these supposed advantages concern, in fact, three areas:

- occupational inheritance,
- access to physical and financial capital, and
- access to "entrepreneurial" capital.

Blau & Duncan (1967) were the first who noticed an extremely high degree of **occupational inheritance** and self-recuitment among the self-employed in America, although Wong (1990) found this phenomenon is even more evident in socialist countries like England and Japan. Also, Dunn & Holtz-Eakin's (1996) study on the National Longitudinal Survey of Labor Market Experience also confirms that parents's self-employment experience had "very large and significant effects, just about doubling the probability of the son's entering self-employment."

According to Aldrich, Renzulli & Langton (1998), **physical and financial capital** can affect the children of the self-employed in two ways: "through a succession process, whereby a child takes over the parents's business, or through a transfer of other wealth that enables a child to purchase some or all of a business."

Another major kind of contribution of self-employed parents to their children is **entrepreneurial capital**: the term—coined by Aldrich et al. (1998)—encompasses the traditional notion of "human capital" and also includes those experiences and skills that are relevant to business ownership and administration. They write:

> Relevant attitudes created by experience include a willingness to work long hours, foregoing leisure activities and holidays, and perhaps sacrificing family life to the needs of the business. Relevant

> skills include managing a workforce and keeping track of a firm's cash flow. Self-employed parents may foster the development of entrepreneurial capital in their children through socialization, work experience, and the development of social capital. They may also replenish and reinforce the results of earlier experiences by contributing emotional and other non-financial forms of support to their adult children.

Entrepreneur capital is also made of social capital and personal networks: parents may provide the right contacts and put their children in touch with people who can help them start a new venture or give precious advice (Granovetter 1993).

It is necessary to note, in conclusion, that the factors mentioned above actually influence the lives of the children of entrepreneurs to a degree largely dependent on the geographical context: those advantages may play a minor role in those countries where social mobility is stimulated by the right legislative environment, while they may be critical in areas where the socio-economic ladder is tougher to climb. We will focus on the peculiar aspects of Italy in the following section.

1.3 Definition of enterprise and entrepreneur in Italy

Italian civil code defines the entrepreneur, but not the enterprise. Nonetheless Italian law makes a clear distinction between the entrepreneur (*imprenditore*) and the self-employed professional (*libero professionista*). This is defined in civil code as follows:

> *È imprenditore chi esercita professionalmente una attività economica organizzata al fine della produzione o dello scambio di beni o*

di servizi[1]. (Art 2082 civil code)

So, following Campobasso's (2011) and Alpa & Zeno-Zencovich's (2007) broadening explainations, according to Art 2082 an entrepreneur can be considered such if he or she pursues:

- an *economic* activity, that is, one based on property and wealth-creating, not merely the enjoyment of existing goods
- in the course of a profession, hence stable, if not necessarily continuous — the activity must at least be more than just occasional,
- through an organization, meaning involving directing the work of others or the use of property and not resulting in a merely personal outcome, and
- with a *market* as destination, by producing new goods, adding value to existing goods, or bringing producers and consumers together.

Productive activity The enterprise is a coordinated series of actions aimed at the production or exchange of goods or services and must not be mere enjoyment of existing properties (e.g.: renting an apartment). For the purpose of classifying a person as an entrepreneur, his/her business can also be illegal; however, the subject will not enjoy laws protecting entrepreneurs (e.g.: concerning unfair competition), in accordance with the general principle that benefits cannot derive from unlawful conduct.

Organization. Enterprise and self-employment The entrepreneur usually builds a production environment, made of people and facilities. It is also an entrepreneur who operates without the use of other people's work, provided there is organization of resources and capital in addition to his or her own work. Similarly, it is defined as entrepreneur who operates without creating a corporate system of movable and immovable/real property, but only

[1] tr. *Entreprenur is who pursues in the course of a profession economic activities organised with the aim of production or exchange of goods or services.*

through funds of their own or of others. According to Campobasso (2011) one cannot be called an entrepreneur if he/she carries out a productive activity based *solely* on their personal work, this is the case of self-employed people. Art 2083 civil code defines the *small entrepreneur* as who is mainly involved with his/her own work and that of his/her family.

Economic soundness The enterprise is required to be economically sound: production activities must be carried out in a cost-effective way that allows, at least, to cover costs with revenues. It is not necessary that revenues exceed costs, i.e. generating income, or that profit is made, nor the management must maximize revenues, provided they are at least equal to costs.

Professionalism Entrepreneurial activity must be regular and not occasional; however, it can be not necessarily continuous in time or it can be the entrepreneur's only occupation. Finally, entrepreneurship means also undertaking activities towards the completion of a single deal, as long as it is complex and requires the execution of various tasks.

1.3.1 The Entrepreneur's Statute

The laws applying to entrepeneurs vary according to the kind of activity pursued. Among the multitude of rights and duties there are laws concerning requirements for administrative authorization, employees and workplace safety issues (e.g.: norms for fire and accidents prevention), and manufacturing techniques. Italian commercial businesses[2] are further subject to the laws, collectively called *Entrepreneur's Statute*, that regulate:

- legal publicity of enterprises — entrepreneurs and third parties need truthful and unquestionable information about facts and situations con-

[2] *Commercial businesses* are those listed in Art 2195 civil code, or those whose purpose is the industrial production of goods and services, or the marketing and distribution of goods, including transport, banking, insurance and other related sectors. Italian law distinguishes between commercial businesses and *agricultural businesses*. This is done on the basis of their products: The latters's activities involve cultivation of the soil, forestry, husbandry of animals and connected activities such as the processing and sale of agricultural products. This category also includes enterprises in the fishing industry.

cerning the enteprises they come in contact to, so it is legally mandatory for the entrepreneur to make public certain acts, records, and facts[3] pertaining the life of his or her business; the local *register of the enterprises* is the designed place for such purpose;

- documentation by way of *account books*[4];
- requirements concerning capacity, with special regard to the work of minors and of phisically disabled people;
- appropriate insolvency procedures, particularly in bankruptcy, to guarantee the fair distribution of the enterprise's remaining assets among creditors.

1.4 Italian economic situation

Italy is the 8th largest economy in the world; 10th when adjusting figures for purchasing power parity[5] (World Bank 2013). Despite its renowned profile of quality and innovation, Italy has grown slowly during the past decade.

Gross Domestic Product In 2011 Italy's GDP growth has slowed down from 1.8 of 2010 to 0.4 percent. According to Banca d'Italia (2012) the degradation of the current economic cycle was particularly severe during the second half of that year, when a shrinkage began in economic activities and continued through the next. On the first three months of 2012 output level[6] was 6 percent lower than it was in the previous cyclic peak (first trimester of 2008). This fall in GDP is imputable to the consequences of the European sovereign-debt

[3] see Art 2196, 2197, 2198, and 2200 for details.

[4] Art 2214 explains which different kinds of account books must be kept.

[5] when making comparisons between countries it is necessary, to convert the figures into a common currency, so the underlying message can be distorted by exchange-rate effects. The best solution is to normalize data on a purchasing power parity (PPP) basis, which adjusts for national variations in the prices paid for goods and services. Some intergovernmental agencies such as the World Bank and the Organisation for Economic Co-operation and Development (OECD) produce estimates, as this calculation is not easy. (The Economist 2007)

[6] output includes manufacturing and industrial production, car production and sales, construction spending, housing starts, and wholesale and retail sales.

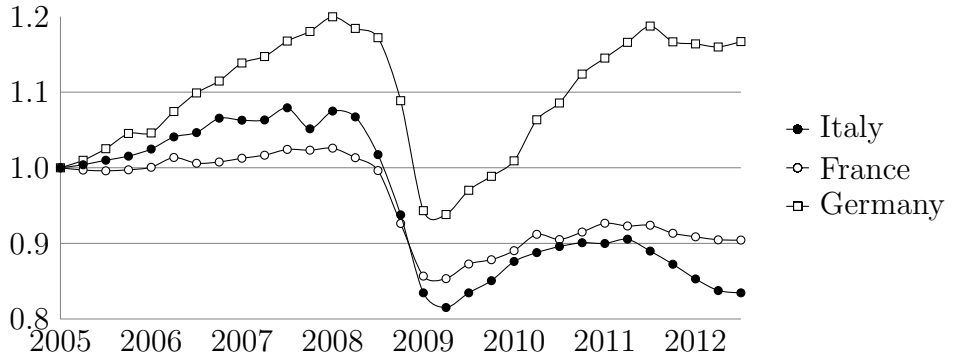

Figure 1.1: Industrial production of Italy, Germany and France (2005 = 1)[7]

crisis, which also ran over Italy. Worsening financial situation made money supplies more difficult to obtain for banks, hence affecting their private loan policies and, consequently, national demand and propension for investments.

Industrial activity, production, and productivity In 2011 most of the industrial sectors marked slow progress or decrease in activity, with the exception of mechanics, metallurgy and power production, which have experienced significant growth. As figure 1.1 shows, Italian manufacturing has not yet recovered the production levels it had before the recession. Instead, after having regained about one third of the 25 percent loss suffered during the recession of 2008-09, total industrial production returned to fall down, starting from 2011 onwards. While suffering similar drops, Italy's neighbour economies have reacted more effectively; particularly Germany, which is enjoying a widespread expansion in almost all sectors.

Since more than a decade, Italy's productivity growth has not been able to keep up with Europe's leading economies. However, value added and productivity have been different between economic sectors and between enterprises within them: negative trends in traditional areas were opposed by positive growth in medium-high-tech sectors and those enterprises oriented to innovation and internationalization were the best in facing recent economic weakenings.

[7]source: OECD.Stat Extracts

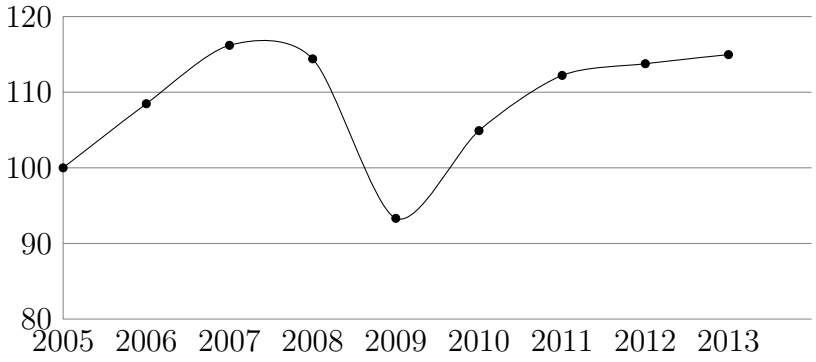

Figure 1.2: Export volumes of Italy 2005-2013 (2005 = 100)[8]

Labour productivity has been unsatisfactory for over a decade now. After an increase from 1992 to 2000 greater than other major European countries, value added per employee in real terms fell between 2001 and 2007. The whole economy slowed abruptely, starting a season of productivity stagnation. The production system was unable to expand its efficiency at rates comparable to those of European competitors; this has been evident in all the main sectors and across different phases of the economic cycle.

Exports In the latest years, exports of goods have almost gotten back to the levels Italy had before the recession, and they have been the main source of fuel for the Italian industrial activity in last decade. Following the analysis presented in Banca d'Italia's (2012) annual report, in 2011 growth in export interested mainly non-EU countries, while sales to Germany gave burst to the overall figure of exports to EU members.

Enterprise birth and growth In 2011 enterprise net birth rate dropped to 0.8 percent—not much above the figures observed in 2008-09. This was due to a sharp reduction in births and a slight rise in ceasings: over 12,000 started bankruptcy procedures concerned almost any major productive sector. On the other hand, a positive demography kept on affecting limited companies, particularly in high-tech manufacturing, which confirms Italian transition towards organizational complexity.

[8]source: World Bank Data

Investments in R&D have been rising since 2003, reaching 0.7 percent of GDP, also thanks to enterprises with less than 50 employees, which gave great contribution to the overall figure. Surveys done by the Bank of Italy over industrial and non-financial private service enterprises show better sale trends and growth forecasts by those businesses with strong orientation to global markets, innovation, and high investments in R&D.

Enterprise financing Funding directed to high-tech sectors was 8 percent of total, while investments targeted at companies in early stages (*seed* or *start-up*) were a little more than 2 percent. Data from the European Private Equity and Venture Capital Association (EVCA), refering to 2008-2010, points out that these two kinds of investment are less frequent in Italy than in the rest of Europe, by five and four percentage points respectively.

Financing of businesses with high-technology and high growth potential is practiced, on a smaller scale, also by private investors referred to as *business angels*: for the most part they are entrepreneurs, professionals or managers still operating who help founding partners to start a new business in exchange for convertible debt or ownership equity. For the survey conducted annually by the Italian Business Angels Network (IBAN), interviewed angels said they invested about 35 million Euros in 2011 over 150 operations, more than what venture capital companies put in seed and start-up companies. However, in each operation, business angels invested one third less than venture capitalists (on average 230,000 Euros). The survey indicates that a high proportion of investments (76 per cent in 2011) was carried out jointly by several business angels with the purpose of diversifying the risk.

Finally, since the end of 2010, sources of equity capital for Italian companies have been enriched by the presence of the Italian Investment Fund: with a budget of 1.2 billion it aims to foster the strengthening of capital and aggregation processes between companies with a turnover between 10 and 250 million. As of April 2012, the Fund approved 22 foreign direct investments of 225 million and 12 indirect investments in venture capital funds, for about 245

million. An allocation of 50 million, in favor of specialized funds for smaller or newly established companies, was also recently proposed with the aim of strengthening a segment that is less developed by international comparison.

1.5 Young entrepreneurs in Italy

An insightful research on Italian young entrepreneurs has been carried out recently by Unioncamere, an italian public entity with the duty of representing the interests of the several Italian Chambers of Commerce.

In their report (Unioncamere 2013), they notice how young people see self-employment increasingly as a means of lowering the barrier of entry to the job market. As of december 2012, Italian Business Registers listed more than 675 thousand *juvenile companies*[9], about 11.1% of the total figure, which should be a clear message about the importance of young entrepreneurship in this country. Also, the yearly births-versus-deaths statistics recorded 10.1% more companies born in 2012 than 2011, with a positive balance of 70 thousand new companies formed over the ceased ones. These figures are also fueled by the initiative of young foreign entrepreneurs who account for 18.2% of all juvenile companies.

Unioncamere's study shows that people ranging from 25 to 34 years old are more inclined to start a new company (29.2%) than the under-25 (26.3%). This aptitude rises proportionally with the educational status of the interviewed: 25% of high-school graduates seeking employment versus a 40% average of those with an University degree. In general, it is remarkable that young graduates with no work experience are more willing to start their own business than their peers who already had a job. Worth mentioning is also the share of businesses led by women which is higher in juvenile companies (27.2%) than in all Italian enterprises (23.5%).

[9] translation from Italian *imprese giovanili*, i.e. those companies where the owner or the majority of the shareholders and administrators are under 35.

1.5.1 Sectors of activity and geographical distribution

Unioncamere's report highlights the varying intensity of entreprenurial activity within the Italian economic system. Young people's companies try to take root in those areas where it is easier to start and do business, and where it is simpler to express creativity and innovation capabilities.

While the service sector seems to be the favorite ground for the young, the industry still shows some limitations due to higher barriers to entry, especially of a financial nature. However, a greater ability to attract youth entrepreneurial initiatives (often as a result of generational transition) is detected in some sectors of Made in Italy, where the taste and Italian tradition can be renewed and revitalized just by a touch of creativity and innovation that typically young people possess.

Agriculture is also an area where the many under-35 can start their own company, particularly in sectors with high willingness to pay such as organic farming and high-quality certified production.

Conclusions

Research on entreprenership is a wide area of interest, both on a general and on a regional level. In this chapter we gave a glimpse of the main concepts related to entrepreneurship, while in the next we will present what kind of work we carried out to conduct our research.

Part I

Data analysis

Chapter 2

Tools and methods

Introduction

In this chapter we will present the work of data analysis performed over the list of 10,000 companies obtained from Unioncamere's register. First, we will discuss about the quality of the data, then we will explain the screening process that led to a handful of innovative companies founded by people under the age of 35.

2.1 Our inquiry to Unioncamere

To begin our research, we inquired Unioncamere for a list of companies with the following requirements:

- registered office shall be in Veneto;
- the majority of shareholders shall be under 35 years old[1];

The data provided by Unioncamere was contained in a Microsoft Excel spreadsheet that consisted of one heading row and 10,020 data rows, one company for each row. The columns were labeled on the first row as follows:

- PRG: progressive number of the entry;

[1] as in the definition of *juvenile companies* given in 1.5

- PRV: province;
- N_REG_IMP: identification number in the companies register;
- N_REA: identification number in the R.E.A. register[2];
- DT_ISCR_RI: date of entry in the companies register (Registro Imprese);
- DT_ISCR_RD: date of entry in the old companies register (Registro Ditte);
- DT_ISCR_AA: date of entry in the register of "artisan companies";
- DT_APER_UL: date of opening of the local unit;
- DT_CESSAZ: date of closing of the company;
- DT_INI_AT: date of start of activities;
- DT_CES_AT: date of stop of activities;
- DT_FALLIM: date of company failure;
- DT_LIQUID: date of liquidation of company assets;
- DENOMINAZIONE: name of the company;
- INDIRIZZO: address;
- STRAD: road;
- CAP: postal code;
- COMUNE: municipality;
- FRAZIONE: fraction;
- ALTRE_INDICAZIONI: other information;
- AA_ADD: year which the number of employees is referred to;

[2]R.E.A. stands for *Repertorio delle notizie Economiche e Amministrative*, which gathers supplementary data on economy, statistics, and administration aspects of companies

- IND: number of "independent employees," i.e. who works for the company but is not listed in the payroll;
- DIP: number of "dependent employees," i.e. who is listed in the payroll;
- C_FISCALE: tax number;
- PARTITA_IVA: VAT number;
- TELEFONO: telephone;
- CAPITALE: equity amount;
- ATTIVITA_: description of the company's economic activities;
- CODICI_ATTIVITA: codes for classification of the company's economic activities ("ATECO" codes);
- VALUTA_CAPITALE: equity currency;
- VALORE PROD.: total value of the production.

2.1.1 Data quality

Before diving deeper into the data, we inspected the spreadsheet to verify the completeness of the information given for each company.

Out of 10,020 data entries we found that:

- employees number (dependent and independent) was missing for 2,230 entries (22%);
- ATECO codes were missing for 1,556 entries (16%);
- description of a company's activities was missing for 1,558 entries (15%);
- ATECO codes and description of a company's activities were both missing for 1,157 entries (12%);
- the name of 64 municipalities out of 550 (12%) was truncated to 22 characters.

2.2 Screening process

We limited our inquiry to companies whose activities lies in manufacturing, consulting, technology and advanced services. So the companies were filtered according to their ATECO classification: entries were discarded whenever any of their ATECO codes did not fall within the following ranges:

- 12 to 32.99.90,
- 35 to 39.00.09,
- 52.29.22 to 52.29.22,
- 61.9 to 63.9,
- 70.2 to 72.19.09,
- 74.1 to 74.10.90, and
- 74.9 to 74.90.99.

This process has been carried out by a Python script that iterates through the spreadsheet rows, checks the codes, and outputs the resulting entries. In our dataset we found 1,914 companies (19,1%) matching the above criteria.

With this pool of companies, we started to look specifically for the most interesting and innovative ones. In particular, we focused on those companies who had a website on the Internet, having the belief that young and innovative entrepreneurs do understand the value and the potential of an online presence for their businesses.

This round of filtering led to 161 companies (8.4%, 1.6% of all juvenile companies in the dataset) which will be listed in detail in section 3.2.

Finally, in the most interesting cases we tried to set up an interview with at least one founder, in order to talk about opportunity recognition, financing, growth, products and markets evolutions, innovation process, and critical aspects in business development (see part II).

Conclusions

This task of data analysis may seem simple and trivial, yet it has to be done in a very careful way in order to minimise the risk of excluding potentially interesting companies. In the following chapter we will present the results of this process, then in part II we will report in more detail the stories of our interviewed entrepreneurs.

Chapter 3

Results

Introduction

In this chapter we will present the results of our examination on the data from Unioncamere. The analysis presented below consists of the distribution analysis of companies according to the year of foundation, number of workers and main sector of activity. First, we conducted the analysis on the whole dataset, then we focused on companies in manufacturing, consultancy, advanced services, and technology who also had an online presence (mostly under the form of a website. In rare cases the companies had only a page on Facebook).

3.1 Overview of juvenile companies in Veneto

According to our data, the number of companies in Veneto run by people under the age of 35 has been rising over the last twelve years (figure 3.1). The number of companies for the 2012 lies outside the overall trend because we had data only untile september 2012. As shown in figure 3.2, most of the companies in our database employ less than 50 people. In table 3.1, companies are divided by economic activity in detail. For the reader's convenience, we put the 20 most popular categories on a bar chart (figure 3.3). Food and beverage services activitues (e.g. bars, pubs and restaurants) are those who mostly attract young entrepreneurs. We also compared the share of economic

sector within Veneto to their distribution on a national level. Table 3.2 and figure 3.4 show which sectors are more attractive for young entrepreneurs in Veneto: food and beverage services, as well as real estate and manufacturing activities are sectore in which more companies work in Veneto compared to the national data. On the other hand we see less agriculture and construction-related ventures.

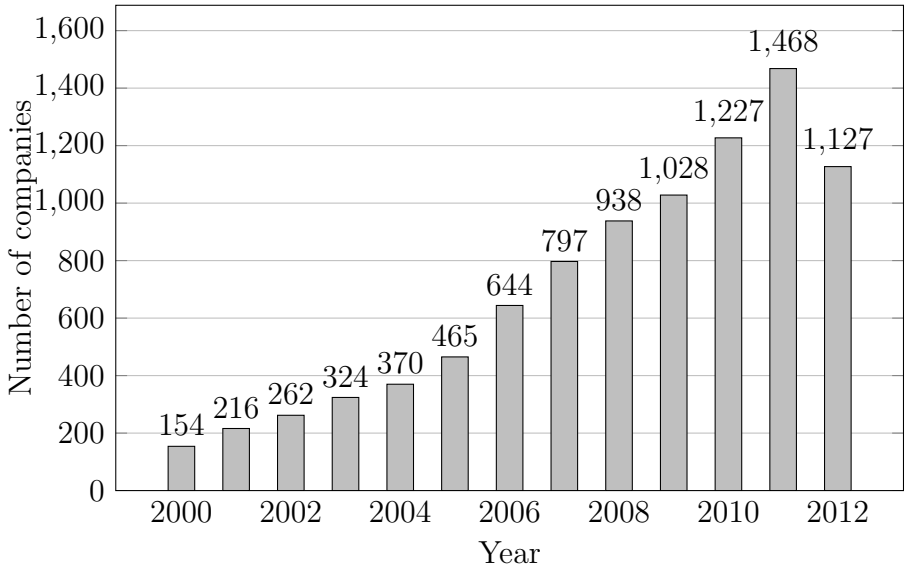

Figure 3.1: Number of juvenile companies in Venetofrom 1990 to September 2012

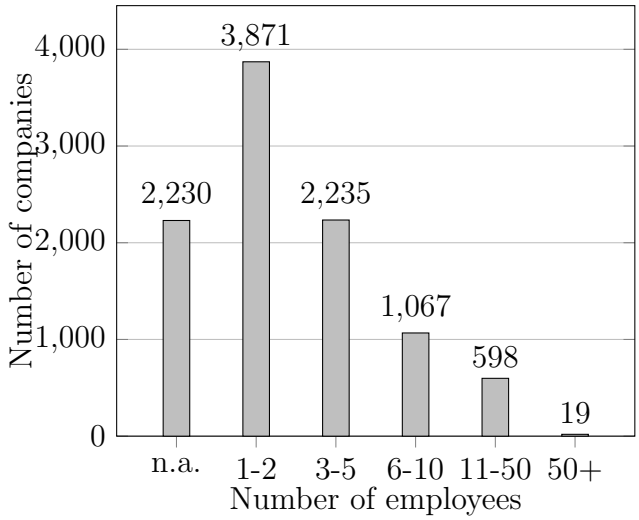

Figure 3.2: Number of companies by employees (independent and dependent)

Table 3.1: Sectors of all juvenile companies

ATECO	Companies	Rank
01. Crop and animal production, hunting and related service activities	135	12
02. Forestry and logging	4	60
03. Fishing and aquaculture	1	69
08. Other mining and quarrying	2	65
10. Manufacture of food products	65	25
11. Manufacture of beverages	3	63
13. Manufacture of textiles	22	43
14. Manufacture of wearing apparel	64	27
15. Manufacture of leather and related products	52	30
16. Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	67	23
17. Manufacture of paper and paper products	7	59
18. Printing and reproduction of recorded media	37	37
20. Manufacture of chemicals and chemical products	12	54
22. Manufacture of rubber and plastic products	34	38
23. Manufacture of other non-metallic mineral products	46	34
24. Manufacture of basic metals	4	61
25. Manufacture of fabricated metal products, except machinery and equipment	301	7
26. Manufacture of computer, electronic and optical products	22	44
27. Manufacture of electrical equipment	66	24
28. Manufacture of machinery and equipment nec	100	16
29. Manufacture of motor vehicles, trailers and semi-trailers	13	52
30. Manufacture of other transport equipment	17	49

Continued on next page

Table 3.1: Sectors of all juvenile companies

ATECO	**Companies**	**Rank**
31. Manufacture of furniture	92	17
32. Other manufacturing	49	32
33. Repair and installation of machinery and equipment	52	31
35. Electricity, gas, steam and air conditioning supply	11	55
37. Sewerage	1	70
38. Waste collection, treatment and disposal activities; materials recovery	24	42
39. Remediation activities and other waste management services	3	64
41. Construction of buildings	619	6
42. Civil engineering	22	45
43. Specialised construction activities	634	5
45. Wholesale and retail trade and repair of motor vehicles and motorcycles	239	9
46. Wholesale trade, except of motor vehicles and motorcycles	714	3
47. Retail trade, except of motor vehicles and motorcycles	883	2
49. Land transport and transport via pipelines	175	10
50. Water transport	9	57
52. Warehousing and support activities for transportation	40	35
53. Postal and courier activities	4	62
55. Accommodation	79	21
56. Food and beverage service activities	1464	1
58. Publishing activities	13	53

Continued on next page

Table 3.1: Sectors of all juvenile companies

ATECO	Companies	Rank
59. Motion picture, video and television programme production, sound recording and music publishing activities	11	56
60. Programming and broadcasting activities	2	66
61. Telecommunications	38	36
62. Computer programming, consultancy and related activities	128	13
63. Information service activities	82	18
64. Financial service activities, except insurance and pension funding	16	50
66. Activities auxiliary to financial services and insurance activities	57	29
68. Real estate activities	675	4
69. Legal and accounting activities	18	47
70. Activities of head offices; management consultancy activities	108	14
71. Architectural and engineering activities; technical testing and analysis	60	28
72. Scientific research and development	9	58
73. Advertising and market research	80	20
74. Other professional, scientific and technical activities	158	11
77. Rental and leasing activities	73	22
78. Employment activities	2	67
79. Travel agency, tour operator reservation service and related activities	47	33
80. Security and investigation activities	2	68
81. Services to buildings and landscape activities	65	26

Continued on next page

Table 3.1: Sectors of all juvenile companies

ATECO	**Companies**	**Rank**
82. Office administrative, office support and other business support activities	81	19
85. Education	34	39
86. Human health activities	31	40
88. Social work activities without accommodation	26	41
90. Creative, arts and entertainment activities	16	51
92. Gambling and betting activities	18	48
93. Sports activities and amusement and recreation activities	106	15
95. Repair of computers and personal and household goods	22	46
96. Other personal service activities	297	8
. Not classified	1557	n.a.

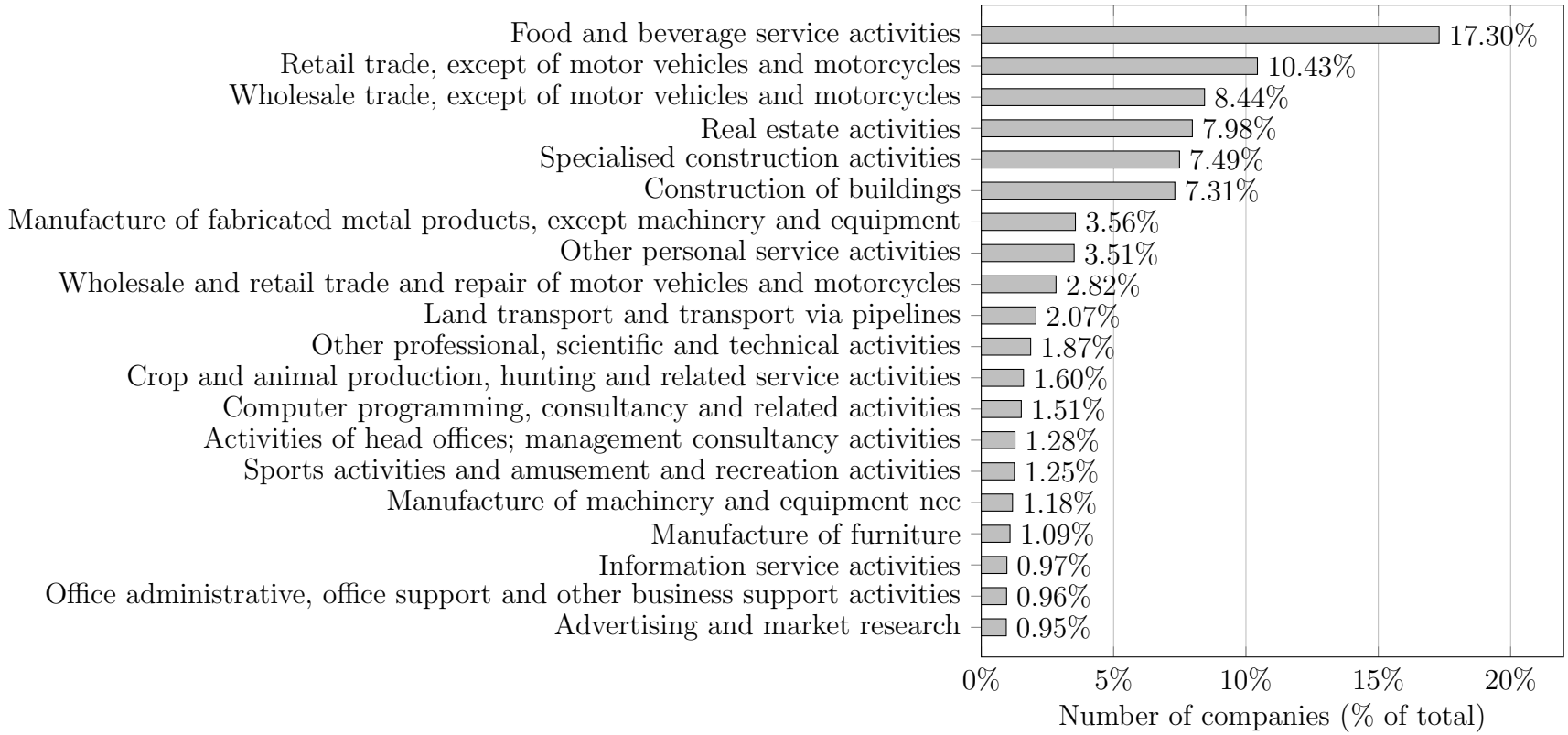

Figure 3.3: Top 10 categories of juvenile companies in Veneto[1]

[1]source: elaboration on data from Unioncamere

Economic activity	All companies Italy		Companies run by under-35s Italy		Veneto		Δ_{pp}
Agriculture, forestry, and fishing	837,624	13.71%	61,603	8.83%	140	1.40%	−7.44
Manufacturing	617,768	10.11%	46,703	6.70%	1,127	11.25%	+4.55
Electricity, gas, steam and air conditioning supply	6,702	0.11%	421	0.06%	11	0.11%	+0.05
Water supply, sewerage, and waste collection	10,666	0.17%	671	0.10%	28	0.28%	+0.18
Construction	906,496	14.84%	134,922	19.35%	1,275	12.72%	−6.62
Wholesale and retail trade	1,550,863	25.38%	193,021	27.68%	1,836	18.32%	−9.35
Transport and warehousing	178,846	2.93%	14,158	2.03%	228	2.28%	+0.25
Food, beverage and accomodation services	392,337	6.42%	58,282	8.36%	1,543	15.40%	+7.04
Information and communication services	125,190	2.05%	14,278	2.05%	274	2.73%	+0.69
Financial and insurance	116,807	1.91%	15,533	2.23%	73	0.73%	−1.50
Real estate	281,265	4.60%	14,169	2.03%	675	6.74%	+4.70
Professional, scientific, and technical activities	193,251	3.16%	18,370	2.63%	433	4.32%	+1.69
Rental, leasing activities, and travel agencies.	156,616	2.56%	22,391	3.21%	270	2.69%	−0.52
Education	26,262	0.43%	1,995	0.29%	34	0.34%	+0.05
Human health and social activities	33,885	0.55%	3,129	0.45%	57	0.57%	+0.12
Arts, sports, and other entertainment activities	66,334	1.09%	8,797	1.26%	140	1.40%	+0.14
Other services	231,360	3.79%	36,298	5.20%	319	3.18%	−2.02
Not classified	377,802	6.18%	52,685	7.55%	1,557	15.54%	+7.98
Total	6,110,074	100.00%	697,426	100.00%	10,020	100.00%	+0.00

Table 3.2: Economic sectors of juvenile companies. Italy vs. Veneto

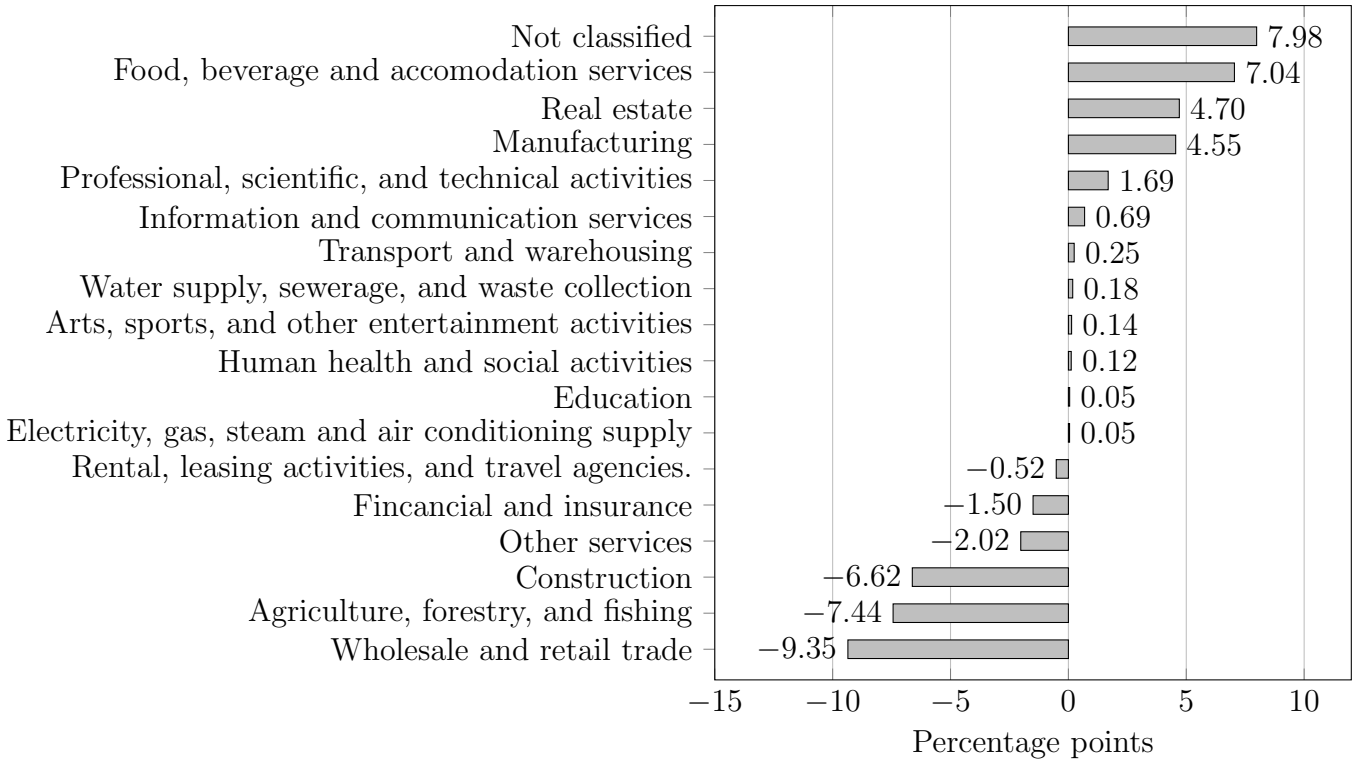

Figure 3.4: Distribution of economic activities: Veneto vs. Italy[2]

[2]source: elaboration on data from Unioncamere

3.2 Companies having a website

As anticipated in section 2.2, we limited our survey to companies in manufacturing, consulting, advanced services, and technology in general. Then, we filtered the resulting data for companies having an online presence. The result was a handful of 161 companies. Here, in figure 3.5 we list the distribution of economic sector of those companies, and in section 3.2.1 we give the full list of companies, which we hope will contribute to further research.

Figure 3.5: Activity of companies having a website

3.2.1 Full listing of companies having a website

Computer programming

- 3P STUDIO SNC DI MATTEO POZZANA E PIERFILIPPO TREVISAN: Website analysis and design, mobile apps, web marketing.
  URL: `http://www.3pstudio.it/`

- 42BIT S.R.L.: Web-based software, system administration, Joomla and Wordpress extensions, web marketing, secure cloud hosting service (SicurCloud).
  URL: `http://www.42b.it/`

- ABILENE NET SOLUTIONS SRL: Dial-up, ADSL and HDSL connections.
  URL: `http://abilene.it`

- ADD SOLUTION SRL: Web apps, E-commerce, custom intranets, web marketing.
  URL: `http://addsolution.it/`

- ARGO NORDEST S.A.S. DI VOI FRANCESCO & C.: Reseller for north-east Italy of Argo Software, an ERP and management platform for schools.
  URL: `http://argonordest.com/`

- ATTAIN IT S.R.L.: Development of systems for monitoring, health checking, and localization of motorvehicles.
  URL: `http://www.attainit.eu/`

- BIGTHINK.IT S.R.L.: Facebook marketing, social apps, Open Graph integration, mobile apps, and websites.
  URL: `http://www.bigthink.it`

- BLUE DAY S.R.L: IT consultancy, mobile app development, security auditing, and industrial automation software development.
  URL: `http://www.blueday.it`

- BM INFO S.R.L.: ERP systems, hardware and software network solutions, support.
  URL: `http://bminfo.it`

- BUKO' S.N.C. DI BUGLIOSI ANDREA E CONSIGLI MASSIMILIANO: Website design, E-commerce, kiosk software, web marketing, brand image design, video production.
  URL: `http://www.buko.it`

- CHIPCORE S.R.L.: Industrial automation software development and testing, web design, VoIP, hardware reseller.
  URL: `http://chipcore.eu`

- CLOUDNOVA S.R.L.: Information management software, project management software, collaboration tools, company image design, social marketing.
  URL: `http://cloudnova.it`

- CODICEZEROUNO S.R.L.: Website design, e-commerce, digital catalogue mobile apps.
  URL: `http://www.codicezerouno.com/`

- DIGINESS S.R.L.: Website design, e-commerce, web marketing, mobile apps, social media.
  URL: `http://diginess.com`

- FOOLIX SNC DI SIMONE CARNIO & MICHELE SIMIONI: Website development, e-commerce, mobile apps development, web marketing.
  URL: `http://foolix.com/`

- FUNGO STUDIOS S.R.L.: Development of location-based social games, mainly on mobile platforms.
  URL: `http://www.fungostudios.com`

- GLOBAL ENGINEERING NETWORK S.R.L.: Fast prototyping, laser cutting, LED reseller.

URL: `http://itgen.eu/`

- I-CONTACT SRL: Website development, mobile app development, SMS management software and API.
  URL: `http://www.i-contact.it/`

- ITECS SRL: Hardware manufacture and software development of systems for fleet localization, package tracking, satellite alarm, waste collection tracking, and remote control of industrial systems.
  URL: `http://itecsonline.net`

- LIKE SRL: Consultancy on IT infrastructure, security, availability, and collaboration.
  URL: `http://www.likesrl.com/`

- MAD NET S.N.C. DI PANAROTTO UMBERTO & C.: Website design, e-commerce, web marketing, graphic design
  URL: `http://www.madnetweb.it/`

- MASSIMI SISTEMI S.R.L.: IT consultancy, press editing and publishing, marketing and education services for medium and large enterprises.
  URL: `http://www.maasi.eu/`

- METHODE S.R.L.: Customization of third-party software for business intelligence, data integration, business planning, and forecasts.
  URL: `http://methode.it/`

- NICELAB S.R.L.: Website development, e-commerce, graphic design for advertising, SEO, web marketing, social media presence management.
  URL: `http://www.nicelab.it/`

- NOVA DIGITAL S.R.L.: Development of cloud-based mobile software for product catalog management and web marketing; website design.
  URL: `http://novadigital.it/`

- PALLADIO ADV S.R.L.: Website development, mobile apps, graphic design, photography, web marketing, social media presence.
  URL: `http://www.palladioadv.it`

- PAPERMOUSTACHE SNC DI LOCATELLI ALESSANDRO E LANDO SARA: Website development, photography, brand image development.
  URL: `http://www.papermoustache.com/`

- POWER SOLUTION S.R.L.: Certifications of energy performance, solar and wind energy system remote monitoring, thermography.
  URL: `http://powersolution.it`

- PRIMA POSIZIONE S.R.L.: Web marketing, social media marketing, search engine positioning, copywriting, brand protection and reputation.
  URL: `http://www.prima-posizione.it/`

- RDS NORDEST S.R.L.: Software development for laboratory quality control, sales management, and ERP systems.
  URL: `http://www.rds-nordest.it/`

- RENOVATIO S.R.L.: Web agency specialized in web marketing.
  URL: `http://clientifacili.it/`

- SOWESO S.R.L.: Website development, e-commerce, web marketing, mobile app development, location aware apps.
  URL: `http://soweso.com`

- STUDIO STORTI S.R.L.: Open-source software solutions for the public administration.
  URL: `http://www.studiostorti.com/`

- TECH MONITOR S.R.L.: Web design, e-commerce,mobile apps, web based CRM systems.
  URL: `http://gruppovolta.it`

- VEASYT S.R.L.: Digital guides to cultural places for the hearing or vision impaired; web platform for online interpretation services.
  URL: `http://veasyt.com/`

- WEBMOTION S.R.L.: Website development, e-commerce, web marketing, mobile apps.
  URL: `http://www.webmotion.it`

- X - PROJECT S.N.C. DI DE GIARO S. FRINZI F. PACHERA A.: Website development, e-commerce, web marketing, mobile apps, communication, photography.
  URL: `http://www.x-project.it`

- YESDOC S.R.L.: Digital medical history service.
  URL: `http://yesdoc.eu`

- ZERO12 S.R.L.: Cloud-based software developing, mobile apps, training.
  URL: `http://zero12.it`

Manufacture of machinery and equipment nec

- BERTESINA S.R.L.: Manufacturer of carbon steel or stainless steel heat-exchangers of various shapes and dimensions.
  URL: `http://bertesina.it`

- C.S.C. SARTORI S.R.L.: Design and manufacturing of automated machines and systems for making bread.
  URL: `http://csc-sartori.com`

- DEMACROM S.R.L.: Industrial automation solutions using SCARA robots. Applications include welding, pallet loading and rubberizing.
  URL: `http://www.facebook.com/pages/DEMACROM-srl-Engineering/111918458832741`

- DEMASEMINATRICI S.R.L.: Manufacturer and seller of agricultural seeding machinery,

URL: http://www.facebook.com/DemaseminatriciSrl

- DTP WORK GROUP S.R.L.: Design, development and deployment of robot vision software and hardware applied to industrial automation systems.
  URL: http://www.dtpworkgroup.it

- EFFE ESSE 80 S.R.L.: Hydraulic components supplier, consulting services, planning, assembling and building of hydraulic oil systems based on custom requirements.
  URL: http://www.effeesse80.it

- ENERGY S.R.L.: Design, manufacture, and selling of engine-generators of varying size and application.
  URL: http://energy-gruppi.it

- ESSEBI AUTOMATION S.R.L.: Design of robot-arm systems for plastic objects handling, pick up, and pallet loading.
  URL: http://www.essebiautomation.it

- GIDIESSE PACK S.R.L.: Automated sealing machines and thermal shrinking tunnels.
  URL: http://gdspack.com/

- MECCANICA BORSATTO S.R.L.: Design and production of automated machines for pipe cutting and tooling using mechanical and laser technologies.
  URL: http://www.meccanicaborsatto.it

- O.C.M.A. S.R.L.: Design and construction of overhead cranes, tower cranes, and custom lifting machines.
  URL: http://ocma.it/

- OFFICINE MECCANICHE PELLANDA S.R.L.: Design and assembly of machinery, mechanical equipment and steel structures; welding and

machining of smal and large parts.
URL: `http://meccanichepellanda.com`

- OMTRACK SPA: Design and construction of machines for moving, crushing, and selecting aggregates.
  URL: `http://omtrack.it/`

- PASTA TECHNOLOGIES GROUP SRL: Design and manufacture of automated machinery to make fresh pasta, pre-cooked pasta, and dried pasta.
  URL: `http://www.pastatechgroup.com/`

- PETTENON AUTOMAZIONI S.R.L.: Grasping systems, conveyor belts, system for the manufacturing of plastic products.
  URL: `http://pettenonautomazioni.com`

- PRO-DO-MIX S.R.L.: Manufacture of fluid mixers, powder dispensers, liquid level sensors, and tanks
  URL: `http://www.prodomix.it/`

- SKG S.R.L.: Design and manufacture of automated glass working machines.
  URL: `http://skillglass.it/`

- SOLWA S.R.L.: Design and manufacture of devices for water sanitization, fully powered by solar energy.
  URL: `http://www.solwa.it/`

- TPS GEAR SRL: Manufacture of gearboxes for industrial, marine, renewable energy, and building automation applications.
  URL: `http://www.tpsgear.it/`

- TREESSE PROGETTI SRL: Engineering projects development, project management, technical assistance, training.
  URL: `http://www.treesseprogetti.eu`

Manufacture of fabricated metal products

- BIASIO S.R.L.: Design and manufacture of rectangular and circular air duct systems.
  URL: `http://biasio.it`
- CRACCO S.R.L.: Doors, windows, and metal carpentery both for home and industrial architecture.
  URL: `http://craccoserramenti.it`
- DOORS SISTEM S.R.L.: Industrial doors, photovoltaic systems, biomass, small hydroelctrical systems, small wind energy systems.
  URL: `http://doorssistem.com`
- F. M. SERRAMENTI S.R.L.: Selling and installation of doors, windows, and metal carpentery.
  URL: `http://www.fm-serramenti.it`
- LORENZON S.R.L. ENGINEERING & TECHNOLOGY: Design and construction of steel structures, facades, and aluminum windows.
  URL: `http://www.lorenzonlet.it`
- MANTESE SALDATURE S.R.L.: Robot welding of steel, carbon, cast iron, and aluminum.
  URL: `http://mantese.it`
- NOVASTAMPI S.R.L.: Injection moulding of plastics and silicone rubber; bi-material moulding.
  URL: `http://www.novastampi.com/`
- OFFICINE VIO S.R.L.: Metal carpentry for naval, industrial and civil use.
  URL: `http://officinevio.biz`
- PREFABBRICATI FAVERO S.R.L.: Prefabricated structures for use in agricultural, industrial, and animal husbandry buildings.
  URL: `http://www.prefabbricatifavero.com`

- ROCLAM S.R.L.: Steel processing for interior furniture, display systems, and wine bottle keepers.
  URL: `http://roclam.com/`

- SILETECH S.R.L.: Precision mechanical works. Website under construction.
  URL: `http://siletech.it`

- STAMEAT S.R.L.: Manufacture of metal and glass structures for porches and sun shields, for indorr and outdoor applications.
  URL: `http://www.stameat.it`

- SVERNICIATURA VENETA S.R.L.: Coating removal and paint stripping by thermal, mechanical, or chemical process.
  URL: `http://www.sverniciaturaveneta.it`

- TECNOSTEEL SRL: Manufacture of steel structures for stairs, bar and restaurant counters, furniture, and food processing machines.
  URL: `http://www.tecnosteelveneta.com/`

- TRIVELLATO S.R.L.: Manufacture of industrial sliding doors and sun shields.
  URL: `http://www.trivellatosrl.it`

- ZANON FORMING SOLUTION SRL: Manufacture of forming tubes for packaging and sealing machines
  URL: `http://www.zanonforming.it`

- ZOMA S.R.L.: Third party contract precision metallic works.
  URL: `http://zoma.it`

Manufacture of electrical equipment

- AMBRA SOL S.R.L.: Provider of PV solar systems. Site was under construction.
  URL: `http://ambrasol.it`

- C.M.D. TECHNOLOGIES S.R.L.: Design and production of photovoltaic systems, cogeneration systems, low-consuption lighting systems, video surveillance systems, and consultancy,
  URL: `http://cmd-technologies.com/`

- ENERGHIA SRL: Design and production of photovoltaic and cogeneration systems.
  URL: `http://energhiasrl.com`

- FASTLED S.R.L.: Design of low-consumption large-scale lighting solutions, with up to 85% cost savings over older technologies.
  URL: `http://www.fastled.it/`

- IMPERIAL FABBRICA ACCUMULATORI S.R.L.: Manufacture of batteries for cars, motorbikes, caravans, small full-electric vehicles, and other electrical systems.
  URL: `http://www.imperialbatterie.com/`

- M&M LUCE S.R.L.: Design, development, and production of LED lamps for indoor and outdoor use.
  URL: `http://www.mmluce.it`

- PUBBLY SYSTEM DI BERNARDON MAURO & C. - S.A.S.: Manufacture of LED lamps; signs, car decorations, and glass transfers.
  URL: `http://www.pubblysystem.com`

- REFLEX S.R.L.: Development and production of thin mirrors for reflective parabolic panels with an estimated durability over 20 years.
  URL: `http://reflexsolare.com`

- TECNO ENGINEERING SRL: Design and installation of industrial systems; process automation; PLC software development.
  URL: `http://www.tecno-eng.com`

- TECNOGAMMA S.R.L.: Human-made industrial assembly of electrical engines, panels and machines; quality control; functional testing.

URL: `http://tecnomen.it`

Architectural and engineering activities; technical testing and analysis

- DIVENIA S.R.L.: Software waste management systems, hardware RFID readers, online-to-offline social identification system
  URL: `http://divenia.it`

- FUTURHOUSE S.R.L. UNIPERSONALE: Renovation of houses and apartments including wiring, plumbing, painting, roofing and flooring installation.
  URL: `http://www.futurhousevicenza.com/`

- GEOSPHERA SRL: Geotechnical, environmental, and hydraulic project planning; construction site management; land analysis and carography.
  URL: `http://studiogeosphera.com`

- K3 STUDIO SRL: Design of electrical, plumbing, heating, and ventilation systems for public and private buildings.
  URL: `http://k3studio.it`

- OK CONTROL SRL: Non destructive testing and consulting. Website under construction.
  URL: `http://www.okcontrol.com/`

- STEP CONSULENZE SRL: Civil, industrial, and public architectural design; architectural engineergin; energy performance certificiations; interior design.
  URL: `http://www.dallocchioconsulting.com`

- STUDIODESIGN DI ZANONCELLO FABIANO E VERONESE MATTEO S.N.C.: Design for assembly of metallic and plastic parts; technical drawing and printing service; mould design; rapid prototyping.
  URL: `http://studiodesign-vr.com`

- TEXER DESIGN S.R.L.: Manufacture of plugs for moulds for plastic and aluminium diecasting; stainless steel metal prototypes and 3D printing made by SLM technology.
  URL: `http://www.texerdesign.it`

- ZANGUIO ENGINEERING S.R.L.: Civil engineering design. Website under construction
  URL: `http://zanguioengineering.com/`

Advertising and market research

- ASCON S.R.L. CONSULENZE AZIENDALI: Data processing, reporting, tax assistance, pay-slip processing, and labor law consultancy.
  URL: `http://asconitalia.com/`

- MARKETING ARENA SRL: Web project management, web marketing, training for SMBs.
  URL: `http://marketingarena.it`

- META LINE S.R.L.: Website design, web marketing, and multimedia productions.
  URL: `http://www.metaline.it/`

- NOOO AGENCY S.R.L.: Website development, e-commerce, mobile apps, SEO, social media strategy.
  URL: `http://www.noooagency.com/`

- OFFICINA MEDIA S.R.L.: Marketing, public relations, press office, social media, and web design.
  URL: `http://officinamedia.net/`

- P.T. COMMUNICATION S.R.L.: Website and mobile app development, web marketing, e-commerce; contest and event organization; graphic design, branding, advertising projects.
  URL: `http://www.ptcommunication.it/`

- S.G.V. S.R.L.: Design and printing of graphics and decorations for shops and offices; digital printing of stickers, printing of fabric and cars, exhibits, signs, plates.
  URL: `http://www.sgvservizigrafici.it/`

Scientific research and development

- BLOOP S.R.L.: Spin-off from University of Padova researching on audio processing and sound design.
  URL: `http://bloop-labs.com`

- LIGHTCUBE S.R.L.: Spin-off from the University of Padova researching on efficient LED lamps for general lighting, biomedical, biological, telecommunication, high density data storage, and photovoltaic systems.
  URL: `http://www.light-cube.com`

- MICROBION S.R.L.: Spinf-off from University of Verona doing R&D services for third-parties on microbiology applied to the agri-food industry.
  URL: `http://www.microbion.it`

- NANOWEBFUN - SPIN-OFF DELL'UNIVERSITA' DI PADOVA S.R.L. IN SIGLA NWF S.R.L.: Spin-off from University of Padova researching on electro-hydrodynamic technologies and polymer nanocomposite processing in collaboration with private companies.
  URL: `http://www.nanowebfun.com`

- NEXT STEP ENGINEERING - S.R.L.: Spinf-off from University of Padova doing R&D on lab-on-chip technologies for biological and biomedical applications.
  URL: `http://www.nextstepsrl.it/`

- SILTEA S.R.L.: Spin-off from the University of Padova designing and producing nanoprotective substances for glass, ceramics, optical and optoelectronic components, with applications in the field of cultural her-

itage, arts, and manufacture industry.
URL: http://www.siltea.eu

Activities of head offices; management consultancy activities

- AUXIELL S.R.L.: Consultancy on lean manufacturing and industrial investments.
  URL: http://auxiell.com/
- EXSAFE S.R.L.: Risk analysis and management, business continuity management, and project-based risk response.
  URL: http://exsafe.it
- GESTA S.R.L.: Credit analysis, advance notices, recovery and collection; financial and contractual consultancy; corporate restructuring.
  URL: http://gestaconsulenze.com/
- MANSOLUTION S.R.L.: Extrajudicial collection of compensations for damages in the fields of car crashes, health service malfunctions, employer liability, workplace accidents and other loss.
  URL: http://www.mansolution.it/
- SMARTTREE S.R.L.: Business plan consultancy, capital raising for start-up, help on idea development.
  URL: http://www.smarttree.it

Other professional

- BIAGINI IMPIANTI SAS DI ING. MARCO BIAGINI: Design, manufacture and installation of plants, specializing in fluids and powders mixing plants, gas dosage and purification systems.
  URL: http://biaginiimpianti.it
- DRAWLIGHT SRL: 3D graphics, virtual sets, 3D mapped projections, and augmented reality for promotional events.
  URL: http://www.drawlight.net

- EPUBBLICA S.R.L.: Web-based talent scouting and on-demand electronic publishing of books.
  URL: `http://www.epubblica.com/`

- MEDIASTAR CORPORATE S.R.L.: Website design, advertising, marketing, corporate image consulting, and copywriting services.
  URL: `http://www.meccanicaborsatto.it`

- REKLAM85 SRL: Design and production of printed graphics; stickers, flags, window transfers, car decorations, interior design, packaging, brand image design.
  URL: `http://rk85.com/`

Manufacture of computer

- FREETECH GROUP S.R.L.: Development of proprietary CMS and ERP software for businesses.
  URL: `http://freetechgroup.com/`

- GPSKIT SRL: Manufacturing of measuerements systems and GPS+GPRS antennas; hardware reseller.
  URL: `http://www.gpskit.eu/`

- OPTIKROM S.R.L.: Lens production; anti-scratch and anti-glare treatments; bifocal and progressive lenses; custom solutions.
  URL: `http://optikrom.it`

- WEEBO S.R.L.: Multimedia streaming services, video on demand, live video, point-of-sale monitoring.
  URL: `http://www.weebo.it`

Printing and reproduction of recorded media

- IDEA STAMPA S.R.L.: Printing on fabric and clothes; small to medium quantities.
  URL: `http://www.idea-stampa.it`

- MULTI GRIFFE S.R.L.: Heat transfer printing on plastics, rubber, leather, and fabric; metallic transfer, fluorescent transfer, and reflective transfer.
  URL: `http://www.multigriffe.com/`

- R1 S.A.S. DI PIOVESAN ALESSANDRO E LUCA: Serigraphy on accessories in footwear and clothing industries for cycling, motorcycling, football, ski, and safety clothing.
  URL: `http://www.r1piovesan.com`

- SERIVENETA S.N.C. DI ROLLE & MICALE ROBERTA: Digital printing and industrial screen printing on plastic sheet (e.g. PVC, polyester and polycarbonate), particularly in the field of electronic and electromechanical applications.
  URL: `http://serivenetanet.com/`

Wholesale trade

- ACRILPROJECT S.R.L.: Development and execution of projects involving polymethyl methacrylate sheets, including laser cutting, sculpting, and bending.
  URL: `http://www.acrilgraph.com/`

- ESTEMPORE SRL: Website is under construction.
  URL: `http://estempore.it`

- INPELLE SRL: Production of leather tiles for interior design, flooring, wall paneling, and the automotive industry.
  URL: `http://inpelle.net/`

- PROCAM GROUP S.R.L.: Reseller of CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing) software.
  URL: `http://www.procam.it/`

Education

- G&P FORMAZIONE DI GIANNELLA GIACOMO E C. S.A.S.: Training on workplace safety, fire safety, food safety; safety, hygiene and managemente of swimming pool systems; privacy.
  URL: `http://www.gepformazione.it/`

- SISTEMA SICUREZZA S.N.C. DI DENIS MAGOGA & C.: Consultancy on workplace safety, construction site safety, occupational health consultancy, and training.
  URL: `http://www.sistemasicurezza.com`

- YOUNG DIGITALS S.R.L.: Digital strategy, social media presence, digital media planning, training courses.
  URL: `http://www.youngdigitals.com`

Information service activities

- ALL ELETTRONICA S.R.L.: Development and distributions of IP-based video surveillance systems, for road construction sites, shops, houses, and large areas.
  URL: `http://www.visiosec.it/`

- ANTLOS S.R.L.: An upcoming platform for boat bookings, allowing anyone to find, compare, rent and share any kind of vessel around the world.
  URL: `http://antlos.com`

- PROJECTMOON S.R.L.: Website development, e-commerce, web marketing, change management consultancy, start-up accelerator.
  URL: `http://www.projectmoon.it`

Manufacture of chemicals and chemical products

- DIGITAL TOUCH SRL: Photography, photo editing, and printing.
  URL: `http://d-touch.it`

- POLAR CHIMICA S.R.L.: Manufacture of chemicals, raw materials, and equipment for surface treatment of metals and waste water treatment.
  URL: `http://www.polarchimica.com/`

- TEST VERITAS S.R.L.: Conformity assessment services in the field of agri-food analysis.
  URL: `http://www.testveritas.com`

Manufacture of rubber and plastic products

- AMA PROTEZIONI SOLARI S.R.L.: Manufacturing of outdoor sun shades, architectural shelters, and car shelters.
  URL: `http://www.amaprotezionisolari.it/`

- IMPLAST S.R.L.: Manufacture of plastic cans, rolls, bages, cases, bands, and boxes.
  URL: `http://implast.it/`

- S.I.A.T.E.C. S.R.L.: Design and production of rubber and metal conveyor belts with applications in mining fields, concrete and bricks factories, paper factories, airports, agriculture, and metallurgy.
  URL: `http://www.siatec.eu`

Manufacture of wearing apparel

- BUBBLE S.R.L.: Optical fiber, Adsl, Wireless, VoIP, IP FAX and web hosting and related services.
  URL: `http://www.interplanet.it`

- BUBE CLOTHING COMPANY SRL: Clothing for third-parties. Website was corrupt.
  URL: `http://bubeclothingcompany.com/`

- DICKSON STYLE DI TSHIBAIE DICKSON PIERROT & C. S.A.S.: Manufacturer and seller of fashionable clothes.
  URL: `http://www.dicksonstylemilano.com`

Other manufacturing

- LASER STYLE ITALIA S.R.L.: Third-party contract laser marking and cutting of wood, metal, and leather; manufacture of custom badges and trophy cups.
  URL: `http://laserstyleitalia.it`

- MICROHARD ELETTRONICA S.R.L.: Design and production of slot-machines, money counting and exchanging devices, and related security systems.
  URL: `http://www.microhard-srl.eu`

- NEW VICO SRL: Printing of sticky labels, cards, serigraphy and anti-shoplifting RFID tags.
  URL: `http://newvico.it`

Electricity

- BLUENERGY S.R.L.: Manufacturer of stoves and burners powered by pellet, solar energy, and mais.
  URL: `http://www.bluenergysrl.it/`

- METEOARENA S.N.C. DI ANGELO AMICARELLI & SIMONE VESENTINI: Rain and snow forecasts on lakes and rivers; design, configuration, and management of waterlevel monitoring systems; consultancy and analysis of hydrologic risk.
  URL: `http://idroprev.com/`

Manufacture of motor vehicles

- LAB. CORSE S.R.L.: Design and manufacture of special parts for racing cars; custom welding; various racing car mechanical components.
  URL: `http://labcorse.it`

- S.I.B. SOCIETA' ITALIANA BLINDATI S.R.L.: Custom armouring of cars, vans, and special purpose vehicles.

URL: http://www.sibsrl.com/

Civil engineering

- BARBIERI S.R.L.: Digging and road works.
  URL: http://www.barbieriescavazioni.it

Manufacture of basic metals

- ARTE BRONZO S.R.L. DI PISANI & BENEDETTI: Bronze fusion of statues, plates, and other pieces of art.
  URL: http://www.artebronzo.eu/

Manufacture of leather and related products

- CONCERIA TRUST S.R.L.: Site was under construction.
  URL: http://conceriatrust.it/

Manufacture of other non-metallic mineral products

- FORNACI DEL FAGARE' S.R.L.: Large-scale production of solid and cored bricks.
  URL: http://www.fornacifagare.it/

Rental and leasing activities

- STEALTHSHADE SRL: Manufacture, trade and rental of small remote-controlled helicopters and other flying vehicles for video surveillance applications.
  URL: http://www.stealthshade.it/

Specialised construction activities

- TECH PLUS SRL: IT solutions using open source software.
  URL: http://www.techplus.it/

Telecommunications

- SIMS2GO ITALIA S.R.L.: Reseller of mobile telephone services oriented to international mobility.
  URL: `http://www.sims2goitalia.com/`

Warehousing and support activities for transportation

- TERRACIRCE VERONA S.R.L.: Logistics and goods delivery. Website under construction
  URL: `http://terracirceverona.it/`

Waste collection

- SIVIPLAST S.R.L.: Manufacturing, transformation, and trade of plastic granules and powders.
  URL: `http://www.siviplast.it`

Conclusions

In this chapter we presented a general view of the juvenile companies in Veneto. In part II and its chapters we will focus more deeply on single cases of interest.

Part II

Cases of interest

Chapter 4

Coccitech Srl

Introduction

Pieremilio Garbellotto and Marco Lucchetta are in the wine industry since they were kids. They are an example of what we call "1.5-generation entrepreneurs", that is, people who do have a family background in their business, but start their own company to do something new.

4.1 How it all started

Garbellotto and Lucchetta met at the Conegliano School of Oenology, one of the 11 high school of this kind in all Italy. After that, the former went working for his family business, a historical Italian cooperage (i.e. manufacturer of wine barrels), Giobatta & Piero Garbellotto SpA, established in 1774, while the latter went to the University of Padova where in 2012 took his PhD in Oenology and Viticulture, also collaborating with the AWRI (Australian Wine Research Institute, Australia).

The two met again with their common belief that it was time to bring some innovation to oenology and agriculture in general. According to them, since a couple of years only, winemaking industry started to demand new methods, machines, technology, and research, and they believe that revolutions can be done today at fair prices.

Their ideas took shape in a couple of years and finally, in march 2013, the two friends founded the company in San Vendemiano (province of Treviso).

The first problem they had was with bureaucracy: "These first six months gave us lots of trouble." According to them, the most cumbersome and frustrating task was bouncing from one office to another in order to understand what category their company fits in, if it ever exists, and then know which laws they needed to comply with.

Until now they have invested around EUR 150,000 in the company, all from Garbellotto and Lucchetta themselves, but they already plan to apply for non-repayable financial grants issued by various competitions in the region.

Today the Coccitech's main line of business is focused on automatic wine analyzer, developed on the hardware designed for clinical analysis by another Italian company. Along with that, the company has its own laboratory and is developing a revolutionary line of organic pesticides. Then, for the future,

they have projects on large-scale crop monitoring using unmanned aerial vehicles. In the following sections we will explain what these business branches are about, but first we asked the two founders to give their point of view on how their experience in a family business might have helped them or motivated to start something new.

4.2 Family background

Garbellotto: "We make barrels since more than 240 years, 8 generations. I'm still a manager and shareholder, but aside from a very traditional work that gives many satisfactions and honor, it can be limiting. Barrels are made since the Roman Age. Sure, machines can help the work of men, but up to a certain point. To me, this is an opportunity to enter a much more lively field, where everything is more dynamic and fervent . Some people tell me "You are crazy, you are already settled [into a company]," but to me, it is the salt of life to try to make something new. Sure, my family company poses challenges as well, but working with Marco is an opportunity to bring freshness to the sector."

Lucchetta: "It is the same for me too. I've been always fascinated by applying what I study in order to make something innovative that could help not only the oenology field, but also agriculture in general. With my family business I realized how, for example, many Austrians see Italian-made food and beverages. They have this old image of enlarged Italian families in their mind. When they buy your wine, they buy tradition. But, when you sell your hi-tech machinery, their point of view changes. It is very satisfying!"

4.3 Automated wine analyzers

As Lucchetta and Garbellotto explained us, having accurate measurements of a wine's chemical properties is very important throughout the fermentation process. Even the slightest production error can result in a rejected application for a quality label or, in the worst case, it may require stopping the sales of an already bottled product. Such economic damages can be avoided with a better quality control. Italy is the second largest wine-producing country in the world, yet, according to Garbellotto, "too often winemakers still rely on intuition and alchemy."

Lucchetta explains he was looking for a wine analyzer to be employed in his family company, but existing products costed hundreds of thousand Euros and their "old technology" was not precise enough. Then he came across BPC Biosed Srl, a company from near Rome, who made a line of devices for clinical diagnosis and incidentally wanted to enter the oenology sector. So BPC Biosed and Lucchetta started collaborating. The former provided the analyzer at production cost, while the latter started writing the software procedures and designed the chemical reactions required for properties such as alcohol percentage, glucose, fructose, pH, potassium, and so on. In the meantime Coccitech was founded, and now the two partnering companies offer three devices, different in size and target clients.

- The KEYLAB/ENO, a compact, fully autonomous analyzer featuring a touch screen and a thermal printer, capable of up to 120 tests per

hour. Suitable for small/medium-sized winemakers or small laboratories. Estimated price is around EUR 12,000.

- The Global 240/720 Eno, capable of 240 tests per hour and suitable for large winemakers and medium laboratories. Estimated price is around EUR 22,000.

- The Global 4500 DR Eno, capable of 450 tests per hour and suitable for large service laboratories.

The analyzers share the common principles of high precision (up to 10x), and low buying and maintenance costs: the reagents tray costs just few hundred euros and lasts more than a year. Hardware failure is very rare, as the devices were designed for heavy duty clinical use.

4.4 Microvinification service laboratory

Coccitech also offers a microvinification service for local winemakers in a controlled environment. Garbellotto explained us why having such a laboratory is important. "Say a lifelong winemaker wants to switch to new yeast to change the taste of his wines. This is risky for the entire production. If he sets up his own tests, our experience tells us he will probably end up with thousands of liters of wasted wine and not replicable results, as in a "home-made" environment there are just too many variables that can affect the outcome of the experiments."

Coccitech's dedicated lab features several metal casks and autoclaves for sterilizing tools. Every step in the process is well documented and all the parameters of the wines are measured by the same analyzers the company sells. "So the winemaker can come to us with just few hundred liters of wine. We replicate his current process in our lab, along with ten to fifteen variations. We work in a standardized way for each variation, (e.g.: with same temperatures and volumes), s o that now the results can be comparable and the winemaker can choose with confidence how to evolve his own production."

4.5 Organic pesticides

In the near future (2014), Coccitech aims to "start a revolution" in the pesticide industry. "We are developing new products with scientific approach – Lucchetta explains. Nowadays many companies sell "organic" pesticides without a real research effort behind them. They look around for some ideas reading papers on journals and then go by trial and error. Here we do make our literature research, but then we also do our experiments, both in-house and collaborating with local Universities. And in the end we test in the fields. We look at the biochemical reactions inside the plants and study their interaction with the product we are testing in Brazil and are about to launch."

Coccitech is working on organic coating pesticides, and systemic pesticides. The formers are used to cover the plants providing a sort of shield against pathogens, while the latter will be absorbed by the plants and will serve as a vaccine against plant diseases. Like the human body, plants have an immune system; so Coccitech is developing some organic molecules that will stimulate a plants system to react against specific pathogens, just like human vaccination. The great advantage is that these products will not be toxic. They can be employed near human settlements with no harm to the people.

4.6 Large-scale crop monitoring

When Coccitech's businesses on wine analysis and organic pesticides will become mature enough, the company plans to enter the growing sector of "precision viticulture" through the use of Unmanned Aerial Vehicles (UAV). Precision viticulture's purpose is to optimize plantation management and assess more accurately the optimum density planting, in addition to making decisions regarding the use of fertilizers, irrigation frequency and other possibilities, such as to predict more accurately the crop production and spot diseases or pests. As Lucchetta explains, "thanks to cameras in the visible and infrared spectrum, we can read various parameters directly from the plants."

Conclusions

Although it is early to validate the profitability of Coccitech's business model, as money has yet to start flowing, nonetheless their ideas are bright and surely can help the sector renew itself. The big lesson learnt in this case is that traditional sectors where Italy excels offer many opportunities to start innovative businesses, winemaking is just an example. However it is clear that a deep understanding of the domain is necessary to have the idea of in which direction new products and service should be developed. This is the right place where 1.5-gen entrepreneurs perfectly fit.

Chapter 5

Drawlight Srl

Introduction

Michele Odelli has been enthusiastic about graphics and design since he was a teenager. Now 31, he is leading Drawlight, a company devoted to pushing the boundaries between traditional and emerging digital visual technologies, while struggling to cope with the cultural lag of the Italian market.

5.1 How it all started

Michele enjoyed computers and technology since he was a kid. At the age of 16 he had several jobs in website development and printed media design for small businesses in Arzignano. After he took his Scientific Technologic High School Diploma, he began an engineering program in Bologna, but was busy with some side jobs that took up much of his time, and was not really satisfied with the overall organization of the courses. So, being also passionate about music, he flew to Australia to be a sound technician, but once there his attention turned finally to digital arts and he took his Bachelor of Visual Communication in 2006.

After that, he went back to Italy as, according to him, Australian market was still in early stage for the kind of work he wanted to do. In Italy, he spent about another two years working as an employee in Verona and Padova,

then in 2008 he teamed up with two former class mates tha t had come from Australia. After they got the first clients, they were ready to start their own company, but bureaucracy issues would make their intention fail pretty soon. Michele recalls that moment with irony: "The bureaucrats told us they did know how to deal with Chinese people very well, but they had never seen Australian guys wanting to start a company. What kind of documentation we had to file was just unknown to them. While us Italians are tolerant with possible lack of competence in public administration, the Australians couldn't get why the intention of bringing their money to a foreign country would just result in more and more delays."

As the situation did not seem to improve in a short time, Michele's friends gave up and flew back to Australia. So he continued his career on his own as a freelancer making 3D renders in Verona for architecture firms and real estate agencies. After six months, his now co-founder Lorenzo Beccardo joined him and in early 2011 they registered the company officially.

5.2 Getting (more) job done

Michele's first important client was a construction company from southern Verona. He was still working as a freelancer from his parents' house, and that client gave him some relief of stability due to frequent projects, but the market was shrinking and competition stiffening. As he had the skills to achieve a good amount of photorealistic quality in his works, Michele took the opportunity to enlarge his business scope to product design and 3D animation for big brands.

An animation for a residential complex gave Michele some visibility and it provided him a contract from Benetton in 2008. The job was a short video of two perfume bottles for a television commercial . It became the key to unlock a new market position in advertising. In that occasion, Michele proved he was capable of doing more than just renders of houses. Thanks to the weight of this internationally recognized reference, he put his one-man embryonic company under a new light at the eye of communication agencies, now more prone to

sign contracts and work with him.

But the work was still all on his own. Michele had the common problem of balancing the search for work with the work itself. The solution came when Lorenzo joined him and was full-time employed in 3D design, while Michele also focused on engaging prospect clients.

The following year Drawlight worked for GEOX on the lighting of the 3D models for an advertising campaign, but they still wanted to move on and experiment on different fields. In the mean time they moved to their current office in the industrial park near Padova.

Another turning point in Drawlight's development was when they got into 3D video projection mapping. This is a relatively new projection technology that allows to create dynamic displays out of any surfaces. Purpose-specific software is used to distort any projected image in order to fit perfectly on uneven shaped screens. This technique is applied around the world to illuminate buildings, architectural elements, 3D elements, statues or in advertising campaigns. Some of the first examples come from Pepsi and Nike.

Drawlight was the first company to bring 3D projections to Italy. It was 2010 and behind this story there is a mixture of risk taking and luck: "We were introduced to this big client by a friend of us. The fact that we could do this sort of things was written nowhere, but we talked to them and showed a prototype." So Drawlight built a 24 square meter installation for Riello Group's exhibit at the Global Comfort Technology fair in Milan. The structure was made of many white square solids that resembled a city's skyline. Then, four projectors simultaneously made each solid actually look like an actual three dimensional skyscraper. "They believed in us and it was a success."

From that moment on, Drawlight's mindset changed. They got surprised and amazed at themselves for what they had accomplished, and now they were more confident about their own R&D capabilities.

5.3 Being on the cutting edge

The company employees three digital artists, all under 30, along the two founders. There are two business branches: 3D visualization and graphics on one side; immersive media production and consulting on the other.

"Immersive media" is a broad range of technologies and solutions mixed together to enrich the user experience and amplify communication results. This area includes 3D projections, augmented reality, holograms, and transparent screens. This is where Drawlight's innovation thrust resides.

The innovation process is carried out in a very simple way. Every morning the team checks around 70 websites to spot new ideas, trends, and technologies. Doing this, Drawlight can imagine novel applications to test with clients. Although this approach has worked well so far, the company still lacks a more structured and persistent system to manage knowledge.

Today, the company differentiates itself through high quality content creation and the connection of different technologies. Competitors, on the other hand, are focused on a single field, which limits their creativity and innovation outcome. For example, thanks to this eclectic approach, Drawlight can enrich a 3D projection adding interactivity through an augmented reality ad-hoc application for tablets.

On this regard, Odelli adds: "Other companies often focus too narrowly on the technology per se, without looking at its use and at the entertainment factor. Actually, technology is just a medium. We make the difference because we start from content and then we mix the technologies to make new things happen."

Drawlight's clients are architecture firms and real estate brokers for 3D production, and communication agencies for the immersive media branch. The key partners are technical partners for hardware and external free lances, occasionally.

5.4 Results - A long way to take off

Despite their strong commitment, creativity and technical achievements, Drawlights's economic results are still behind Michele's expectations. When asked for the reasons, he gave a surprising yet insightful answer: "It's not a matter of over-regulation or taxation. From my standpoint, they are secondary but everybody talks only about them. In our case, we followed all the procedures, did all the things the right way, paying all the taxes, and we are still alive. The problem is the return on the effort spent to fuel the word of mouth and self-promotion. If those worked like in other countries, we would be fine."

Today, Drawlight does business with partners in UK, Germany, the United Arab Emirates, and Australia. But in Italy, the market still needs to wake up. "We see a huge gap between what we can do and what we can get, in an economic sense. In Italy, the problem is the mindset of the older generations, who are still ruling big companies. The first thing they do, when low on cash, is to cut on innovative advertising, while it is quite the opposite abroad. Special promotional events are very rare here and the power of virality is not yet understood."

This is why Drawlight urges a cultural shift in Italy. "We go to trade expos, we give speeches, just to let the market know our skills. We do a lot of consulting, but only 5% of the quote requests turn into actual projects."

5.5 Plans and dreams

Given the stagnation of the Italian market, Drawlight's plans for the future are centered on building more international relationships, particularly with Australia and Saudi Arabia, as budgets on innovative advertising projects are higher around the world than in Italy. Michele's aim is to keep the production in Italy and sell more and more abroad. "If we succeed, inevitably we will question whether to keep the company in Italy or not. It's worthless if the situation doesn't change."

However he is optimist and positive about the Italian potential in his indus-

try: "Being Italian still sells well. From around the world they see relatively cheap labor along with sophisticated design, quality and style, but the burden of taxation just doesn't match the internal market situation we are experiencing. Only when this will change we will reach our truly potential."

As for longer-term goals and dreams about the future, Michele explains that moving to larger offices would boost their innovation output and allow them to push their multidisciplinary approach to a whole new level. "We would be able to set up more tests and experiments in-house. Our technical partner believes in our potential and would give us the material we need in commodatum. We would become a sort of creative-workshop, open to share space with other young companies. Many talents under the same roof would give us an unprecedented competitive advantage. In that context, we would love also to start a sort of creative internship program, where students, supervised by a corporate tutor, would learn by working on real project, with real clients, on real schedules. The problem is: who would want to invest in such things? As of today, there is a lack of sensibility in Italy, it is a generational issue, while everybody keeps saying: "If you were in America, you'd be so famous!""

Conclusions

DrawLight's story tells something about how young entrepreneurs should act in order to gain respect and make their company grow despite little field experience. First, Odelli stressed the fact that it is imperative to act as a professional from the very first day of activity: company image depends on the way its components act and behave with clients. As a consequence, it is advisable to show a more formally structured organization of the company than what it really is. On a motivational level, Drawlight's story teaches how risk taking is a fundamental requirement to improve one's capabilities and unlock new business opportunities.

Chapter 6

MicroLife Srl

Introduction

MicroLife is the result of Matteo Villa's varied background and life experience. As a schoolboy he lived near the Formula 1 circuit of Monza where he enjoyed taking race photos. He enrolled in a Political Science degree program at the State University of Milan, but his work as a photographer lead him to France and Belgium, where he refined his foreign languages skills. He completed his degree at the University of Padova, writing his thesis on the economic cost of an environment-friendly development. Villa enriched his curriculum with an MBA in Rome, where he also spent several years assisting a deputy of the Italian Parliament. Finally he turned to the renewable energy sector, working for Sienergie SpA and LDK Solar Energy Europe.

6.1 How it all started

"We were importing biofuel from Asia—he explains. The market price of palm oil reached a peak of USD 1200 per ton in 2007. So we started to study how to make fuel by ourselves from other sources, and we found these microalgae." Microalgae (or Microphytes) are microscopic unicellular organisms capable of performing photosynthesis and use carbon dioxide to grow photoautotrophically, i.e. they are capable of synthesizing their own food from inorganic

substances dissolved in water using light as an energy source. As Villa was deepening his research into microalgae biodiversity, he got more and more excited by this tiny life form, and finally he decided to start his own business on microalgae cultivation. The company's initial equity capital was EUR 20,000, found after Villa extended the overdraft limit of his personal bank account. "In 2008, nobody would have given me the money to start!"

The company was founded with the main purpose of growing certain species of microalgae in water to obtain biodiesel. Villa and his team of biologists began to get to know how the expertise on the field was located across Europe and with other start-ups on microalgae they formed the European Algae Biomass Associaton. The main objectives of this consortium still include spreading scientific information and knowledge about biomass and biofuels production at European and international level, in order to raise awareness in the institutions and help them regulate the use of microalgae in various industries.

6.2 The turn: from petrol to cosmetics

When finally they managed to make fuel, partnering with the Casaccia Research Centre in Rome, the company started to understand how economies of scale might work. But by that time, the market of biofuels turned out to be very competitive and high production costs could not be sustained by the low margins paid by fuel multinationals.

So MicroLife discovered two more profitable sectors: food and cosmetics. "Why should we get few cents by the multinationals, while in cosmetics you could make up to ¤700 per kilogram?" Using the same technology and expertise they had already developed internally, the company was able to isolate and grow those families of algae whose high nutritional properties make them suitable for dietary supplements, vegan food, and beauty creams. In particular, they focused on the Arthrospira platensis, or commonly called Spirulina, Chlorella Vulgaris, and Haematococcus pluvialis.

Today, MicroLife has an increasing revenue and a bank reputation. Villa

stresses the fact that his strong product- and business-oriented mindset are what lead the company to stand on its own feet. “I had no scientific background. But when we started, there were about 7 companies in all Europe; then, after the European Commission authorized the use of microalgae in various fields, the number raised to 68, and today only 15 companies are alive. Other start-ups on microalgae were managed by a biologist or other scientists. They weren’t focused much on product lines or sales and failed. Instead, we do make real products and we sell them.”

The company has three main lines of business: food, cosmetics, and pollution treatment plants, but they also help communities in Africa fight against protein-energy malnutrition of thousands of children.

6.3 Cosmetics and food

MicroLife know-how on microalgae cultivation allowed them to enter the fast growing market of organic cosmetics. Global demand for organic personal care products was over USD 7.6 billion in 2012 and is expected to reach USD 13.2 billion by 2018, growing at a CAGR of 9.6% from 2012 to 2018. Thanks to their high amount of proteins, lipids, amino acids, and vitamins, the application fields of microalgae in cosmetics are very broad. MicroLife developed lines of anti-aging creams, oils, and lotions, but they also sell a compact cultivation plant invented by Villa himself.

The “TreeLife” is a transparent vertical photobioreactor about two meters tall; it resembles a cylindrical aquarium. Inside, water with nutrients, a set of neon lights, and an air pump let microalgae grow in optimal conditions. An opening on the lower part allows for biomass harvesting. This machine is sold to wellness centers who want to use fresh microalgae in their treatments because of their powerful antioxidant effect. But the same product can be sold also to restaurants who treat Spirulina as sophisticated ingredient in their dishes.

As a food source, Spirulina is not a new discovery. It was known and

used by the Aztecs and other Mesoamerican populations until the 16th century. Nowadays large-scale production plants are run in China, South America, Cuba, and Hawaii, but Villa is quite self-confident: "We have the best Spirulina in the world." Unlike other countries, where plants use hectares of land, MicroLife opted for smaller distributed facilities in order to keep water quality and salt nutrients under tighter control. The company developed a recipe of 26 salts, and their relative concentration has been finely tuned to achieve Spirulina with the highest protein and vitamin content, and with no bad smell or taste. Partnering with specialized companies, MicroLife now also offers their own line of pasta, biscuits, breadsticks, and puffs, all containing Spirulina.

In well-off societies, Spirulina's properties are good for dietary supplements and vegan food. If in the west it can be used to lose weight —and consumers are willing to pay a premium for that —in developing countries Spirulina is good to actually gain weight and get healthier. This is the case of African malnourished children.

6.4 MicroLife for Africa

MicroLife is strongly committed in helping African communities fight what is often described as a "hidden hunger", that is, chronic malnutrition.

According to the Global Health Observatory of the World Health Organization, childhood malnutrition has significantly reduced in Americas while it has actually increased in Africa's poorest urban regions . Malnutrition is an underlying cause of 2.6 million child deaths each year. 1 Millions more children survive, but suffer lifelong physical and cognitive impairments because they did not get the nutrients they needed early in their lives when their growing bodies and minds were most vulnerable. When children start their lives malnourished, the negative effects are largely irreversible. As the State of the World's Mothers 2012 report from Save the Children explains, intervention must be done in the "1,000-day period between the start of a woman's pregnancy and her child's second birthday. It is critical to the future health,

wellbeing and success of her child. The right nutrition during this window can have a profound impact on a child's ability to grow, learn and rise out of poverty. It also benefits society, by boosting productivity and improving economic prospects for families and communities."

In 2012, MicroLife started a project involving the cultivation of Spirulina in Adwa, a town in northern Ethiopia. Villa and his team worked with the local Italian no-profit organization Amici di Adwa (Friends of Adwa) that had to deal with 30 thousand malnourished children at the Kidane Mehret mission. First, they had the problem to get past the customs. Villa recalls: "The first challenge was to bring the algae there. We couldn't get it stuck at the customs for days, because it would have died in 24 hours. We had to be fast. So we hid it in fruit juice bottles." Then in Adwa they put the Spirulina in a photobioreactor to make it proliferate and started to build a larger 1-square-meter pond for mass production. They used local materials, trying to cut down the use of electrical energy and special purpose technology. After 2 weeks the system was ready to produce 1 kilogram of Spirulina per day, enough to feed 1,000 children. Once MicroLife left, the volunteers did their homework and managed to make the pond 27 meters long. The first yield was 4.6 kilograms of biomass, and for the occasion they made a "Spirulina party" with elementary school children, featuring local bread mixed with the algae.

Now the company has developed a laboratory inside a standard container complete with all the required equipment to start the production. In case of humanitarian crisis they can send it by cargo and then MicroLife's team will make it working in 10 days.

This successful experience in Adwa was just the first step into the company's most ambitious project. In a few years' time, backed by the African Development Bank, MicroLife plans to open a "biofactory" in each African state. Part of the production will serve the upper market of middle class families, who are more and more willing to pay for functional food and cosmetics, while the margins will finance projects for the poorer population. Once the first factory is set up and working for each country, the company will focus on

a more capillary presence, planning to build around 600 facilities across Africa.

Villa is confident this is going to be an excellent business, both because of the relationship network he is going to build, and because, according to him, this project is far less expensive than other agriculture-related development programs. MicroLife will present this project at the 2015 Milan Universal Exposition, whose theme is "Feeding the Planet, Energy for Life".

6.5 Pollution treatment

Finally, microalgae con be used for wastewater treatment plants. As Villa explains, animal feces contain high amounts of phosphorus and nitrates. So if, for examples, stock-breeding farms dump excrements in rivers or lakes, these substances allow for proliferation of microorganisms that eat the nutrients of local flora and fauna. This process is called hypertrophication, and its environmental consequences include oxygen depletion, which induces reductions in fish and other animal and plant populations. But if this same process is driven inside a closed system, algae can be useful to actually clean the supplied water, and the biomass in excess can be employed in the commercial sectors we mentioned above.

Villa explains how this idea is currently being experimented in a municipal solid-waste treatment facility near Frosinone. There, MicroLife employs their own cultivation technology in partnership with MAD Srl, the owner of the dumping site. Algae cultivation photobioreactors is sustained by providing gas, heat, and nutrients, all coming from the collateral products of the landfill.

An anaerobic digestor produces biogas from biodegradable waste. Cogeneration engines burn the biogas and produce electrical energy, combustion gases, and heat. Then, heat is used by the thermal regulation system of the cultures, while CO2 is fed to the photobioreactors. Nutrients, like ammonia and ammonium sulfates, are taken from the wastewater of the dumping facility.

The resulting system absorbs 2.5 kilograms of CO2 for each kilogram of biomass, uses small amounts of land, cleans water as it does not release toxic

substances on the environment, and produces 10 to 20 times more biomass than traditional cultivations. Biomass in excess can also be fed back into the digestor, as it helps the chemical reactions.

MicroLife is now working toward a stand-alone commercial product for waste facilities around the globe that have anaerobic digestors and the common problem of treating the resulting wastewaters.

Conclusions

Microlife and Matteo Villa's story clearly show how a company can seek for new opportunities by applying its expertise to more profitable sectors. From a managerial point of view, Villa stresses how in a startup skilled scientists, engineers, and technicians are not enough. Survival depends on having a product-oriented approach to business. According to Villa: "It's all about making a product and selling it." So it is fundamental to invest on presentation, samples, brand identity, company brochures, and trade shows which is often overlooked by research intensive ventures. Finally, as Italy still struggles to recover from the global crisis, it is imperative to look for faster growing markets. As a matter of fact, MicroLife plans to expand their business in Germany and northern Europe.

Chapter 7

Solwa Srl

Introduction

Solwa Srl—acronym of "Solar Water"—is a very young company built around its flagship product: Solwa Technology, a breakthrough invention that could solve millions of people's need of clean water supply.

7.1 How it all started

It is unclear where Paolo Franceschetti, 32, had this idea originally. Whether fascinated by the advanced greenhouse technology in Holland during his Erasmus Exchange Program, or inspired by the Apulian saltworks in southern Italy. However, he developed a rough prototype of the Solwa module for his Degree in Environmental Sciences at the University of Padova, Italy. We talked about the history of Solwa with Dr. Davide Franceschetti, marketing director, international relationships manager of Solwa Srl, and Paolo's brother.

The idea is really simple, he explains. The module reproduces the cycle of water in a small basin —something Italian families experience every day when cooking pasta: water getting heated up till boiling point, then salt is added, vapor starts forming and condensing under the pan lid. Beacause water boils at lower temperatures than other polluting substances do (e.g. salt in the pasta case), this process can be used to clean the supplied water. In fact, the

resulting condensed vapor is clean distilled water that can be made drinkable just by passing it through a remineralization filter.

Paolo put these phyisical reactions inside a closed, stand-alone system, the Solwa module, which uses a small photovoltaic panel as energy source. Additional process and architecture refinements allow the module to catch vapor forming at 60°C already, instead of 100°C. The resulting system is 14% more efficient than similar solar still products, and can make up to 10 liters of clean water per square meter of basin, per day. So, one single module's process surface can be as small as one square meter, and still is able to satisfy a family's need of pure water, independently from a centralized distribution center, with no carbon dioxide emissions, and with an overall fixed upfront cost of EUR 200. Solwa requires neither any kind of chemicals, nor large amounts of electrical energy to work, nor skilled maintenance labor, which is the case of large-scale water treatment plants, resulting in a virtually zero-cost, environment friendly, consumer-grade continuous depuration system.

It is easy to see this technology can disrupt the clean water supply paradigm, especially in the developing countries, where more than 3.4 million people die each year from water, sanitation, and hygiene-related causes (World Health Organisation 2008). Incidentally, many of those developing countries are in the best place for experimentation of this innovation, as they have high solar energy potential and the yield of the Solwa module strictly depends on the amount of irradiation available at the attached photovoltaic panel.

Paolo Franceschetti graduated in 2008. In 2009 the United Nations listed Solwa as one of the innovations for the progress of humanity[1]. From that point on, Franceschetti and his team gained increasing visibility which provided them contacts with Bolivia, Morocco and Mozambique and led them to international conferences in Dubai, Cayman Islands, and Australia.

Solwa's first experimental installation was set in 2011 in Trujillo, a Peruvian city located on the banks of the Moche river, near its mouth at the Pacific

[1] see IDEASS website at `http://www.ideassonline.org/innovations/brochureView.php?id=48`

Ocean. Cooperating with an Italian NGO and the local University, the team could test the effectiveness of his device in a place where available water sources suffer for both heavy metal pollution and seawater infiltration .

7.2 The value of an idea

Solwa technology won the Telecom Italia Working Capital competition in 2011. In the same year Franceschetti was awarded as one of the best young Italian innovators by the MIT Technology Review. Finally in 2012 they won EUR 250,000 for the Marzotto Prize as "company for the future."

These prizes marked some important milestones in the development of the company, because then they could afford to hire some people and start making plans for the future. All the expenses, from research efforts, prototyping, and travelling costs, down to the rental of their new offices, have been supported by prizes won by Franceschetti, as a PhD researcher, and more recently by his company, founded in 2012. They declined several buying offers from multinational corporations and opted to stay independent and closer to the academia.

7.3 Other lines of business

Solwa's technology can also be applied to agriculture, the food industry, and sludge desiccation. The company is developing variants of the Solwa module suitable for these applications.

The distillation modules can be employed for the cultivation of arid areas by desalinizing sea water. The company can build autonomous and automated systems from greenhouses to be deployed in coastal desert areas and island, resulting in increased production and reduced management costs.

Solwa's technology can be useful for the food industry because food can be preserved by eliminating its water content. A watery environment stimulates the development of molds and bacteria. On the other hand, chemical reactions

are strongly slowed down in a dry one, and the activity of enzymes is absent. As the temperatures inside Solwa's desiccation module does not exceed the 80°C, water is extracted while preserving the original organic features of the food.

Desiccation can be applied to sludge treatment as well, with the purpose of reducing their volume and weight. A significant percentage of sludge production is related to biological purification of domestic water and current drying methods include mechanical and thermal processes. Solwa's advantage is the high efficiency and the elimination of odors, as it uses a closed circuit air flow inside the system.

7.4 Future plans

In late 2013 the company will start the first batch of production of its modules, with the help of a seasoned manager hired for this purpose. However, Solwa's plans are not only selling and selling. Davide Franceschetti stresses the social commitment of a company that aims to become the point of reference of local communities in the developing world for water sanitation and hygiene issues.

Solwa plans to establish at least one factory per country with the dual purpose of creating jobs for the locals and raising awareness on the importance of water sanitation, personal care, and hygiene. As Franceschetti told us, many diseases could be avoided just by knowing how risky can certain behavior be and by taking better habits.

On the long term, the company's activities will be focused on product design, marketing, and wholesaling, while assembly and distribution will be left to the network of local companies that Solwa is building.

Conclusions

Solwa's story is remarkable because it shows when the idea has enough potential, funding is still possible in Italy, without selling off. However, only in

the next months we will see whether the strategy of staying away from private investors will pay off or not.

Chapter 8

Veasyt Srl

Introduction

Veasyt Srl promises to bring innovation to the field of information accessibility and to the market of language interpretation. We talked to one of the co-founders, Enrico Capiozzo, in Venice. He told us about his company's past and future development, as well as the path that led him from aerospace engineering to human sciences.

8.1 How it all started

Enrico Capiozzo is an Aerospace Engineer. He graduated from the University of Padova in 2008 after completing his Master's thesis at Delft University of Technology, Holland. When he came back, he wanted to bring his knowledge to Italian industry. He explains: "I studied a technique of preliminary design of complex systems. I studied it in the aerospace field and I saw the opportunity to employ it in smaller applications. Back to Italy, I found a professor in Padova who was interested and I asked him for a PhD research program to apply that technique to motorcycles. Then, if everything would have gone well, we could have started a very specialised consultancy company. This technique allowed to save up to 20 percent of design time in large projects, and up to 30 percent in smaller ones. Unfortunately I won a scholarship on a different

subject with a different professor, who had his own works and plans. Then, I looked for some jobs in aerospace but I couldn't come up with anything satisfying. So I had to decide whether I would do a job I didn't like, or I would start something on my own."

In that period, the now co-founder Lisa Danese, was graduating at the University of Venice studying how to use the Italian Sign Language (LIS) to express complex ideas. Her thesis was on designing a tourist guide of Venice in LIS (Danese 2008). Her research was driven by the situation of deaf people who have little or no knowledge of any language beside the sign language. Capiozzo explained that who is hearing impaired from birth often learns a written language later on and to a degree sufficient to read the cover of a newspaper, but complex concepts are still difficult to grasp for him/her.

Capiozzo and Danese met and by chance talked about this problem. They found there were no convenient solutions at that time. So they started to reason on possible domains of applications for products aimed to ease the experience of many kinds of tourists and visitors, an idea similar to the "Universal design" practice in architecture.

The two made a team comprising of two technical members (Bruno Verneau and Gabriele Greco, also co-founders of NOOO Agency Srl) and Professor Anna Cardinaletti as advisor. They brought their ideas to Consorzio IMPAT, and they were included into the list of prospect companies that would be supported for the start-up and development phase. Later, in 2011, Veasyt Srl became a spin-off from the University of Venice, Ca' Foscari, which lifted their self confidence and boosted their visibility.

The company today is working on two main products: "Veasyt Tour", a web portal offering tourist guides for people with disabilities and "Veasyt Live!," a platform where users can find language interpreters and ask for their professional services remotely and in real-time.

8.2 Veasyt Tour

Veasyt Tour is proposed as the new generation of multimedia guides for the hearing and visual impaired. The guides can be accessed via a website optimized for mobile devices and following the guidelines of accessible tourism. In each guide the user can get access to the content under three forms. text, audio and the version in sign language, according to his/her own needs.

Veasyt Tour's video-guides can accompany a tourist's cultural visit to a place in the open space (e.g.: a city center or a nature park) or indoors (museums or villas). The video-guides are composed of several chapters that describe the main points of interest of the place. Finally, the guides include an innovative mobile location-aware advertising system.

A first pilot project was carried out for the Sanctuary of Lourdes in Chiampo (VI) in 2011 and caught the attention of Veneto's administration, who was seeking for the best practices for accessible tourism. So the company was contracted for making seven more guides, regarding some Venetian villas, which are now available for free at the company's website. Now the company is working to new guides for three sites in the city of Venice: the Academy of Arts, the Oriental Art Museum, and the Archaeological Museum.

In the past months the company started to focus on a second product, that aims to connect language interpreters and clients all around the world.

8.3 Veasyt Live!

Veasyt Live! is an on-line market-place where users can access the service of professional interpreters streaming audio and video from their office to desktop computers, tablets, or mobile phones. The system enables professional interpreters to offer their service to all institutions and individuals who need it, even when they are located hundreds of miles away.

According to the company, video remote interpreting (VRI) services already cover 10% of the U.S. market of negotiation interpreting, and continue to grow. In Europe, demand is growing as well, and Veasyt aims to be the first Italian

player who can intercept this demand, starting from the niche sector of the Italian Sign Language, and eventually extending to popular verbal languages such as English, Chinese, Russian, and Arabic.

The service targets not only private users, but also companies and public institutions, (e.g. law courts, municipal offices, hospitals, and clinics) who may need interpreting services for their users or clients. The advantages include lower costs than having an interpreter physically where needed and the possibility to choose in one place between a pool of many professionals who are specialised in many different ares.

8.4 Future plans

In the near future, the company will keep working on both the tourists guides and the interpretation service portal, but their fund raising and marketing efforts are going to be focused on the latter project.

So far, the company has raised EUR 150,000 of grants from public institutions and privately-held business plan competitions. Now Capiozzo is looking for more resources from angel investors of the Italian Business Angel Network. He expects to close the deal for around EUR 200,000 by autumn 2013, so that the company will have enough fuel to boost their upcoming marketing campaign.

Over the years, Capiozzo and his team have built a network of relationships with public institutions and museums. Particularly, their marketing plan is going to leverage their partnership with the Italian Deaf Association in order to organize meetings in various Italian cities where Veasyt will introduce their Live! service. At first the marketing effort will focus on the Sign Language, to build trust and experience, then they plan to add verbal languages by 2014.

Conclusions

Although it is early to decide if Veasyt's ideas are successful or not, nonetheless in Capiozzo's story we can find elements already mentioned in our previous cases, such as the importance of having a varied team, and the importance to conceive an international exapansion from the very beginning. Also, this case teaches that being a university spin-off can unlock opportunities in the public sector.

Chapter 9

Conclusions

What emerged from this study confirmed what Unioncamere's (2013) report implies about youth entrepreneurship in Veneto: innovative juvenile companies are hard to find in Veneto. But after all our study also highlights the fact that actually there are some; the problem is finding them as most of the companies having a website hide behind dull pages and flat content. Insufficient communication effort was evident all across the companies we surveyed, but we leave the task of explaining this situation to future researchers.

Common success factors

Our talks with the interviewed entrepreneurs shed some light on aspects that may be well known to economists, but are obscure to most graduates with technical background and little or no work experience. In particular, our experience in the field of IT, engineering, and computer science education suggests that the following subjects should be given more attention in technology-related University programs.

The advices we summarize here are drawn solely from our interviews. We encourage future researchers on Venetian young entrepreneurs to enrich and expand it with their contributions from new local case-studies.

Build and manage a great team While this may seem obvious, literature on team building best practices is vast. Achieving the right mix of skills and personalities is only one side of the coin, as coordination and motivation typically chip away at the benefits of collaboration. So it is imperative to set compelling goals and work toward cohesion without falling into homogeneity, which stifles innovation (Hackman 2002).

Moreover, research shows that investors place particular importance on criteria related to a comapany's team. As a popular saying in the VC industry highlights that VCs would rather invest "in a grade A team with a grade B idea than in a grade B team with a grade A idea." Qualities of the team members include experience in the relevant industry, field of education, and leadership experience (Franke, Gruber, Harhoff & Henkel 2008).

Take care of your corporate image early on Our research shows that in the sectors of manufacturing, consulting, technology, and advanced services, only 8.4% of Venetian juvenile companies currently have a website. This number is well below the country average for companies in all sectors (65%)[1].

We recommend *all* companies to develop a website as soon as possible. Online presence can be useful to large corporations as well as a new-born two-employees local company. Visitors can be customers, potential employees, business partners and even investors, people who can quickly and easily find out more the business and its value proposition (Knox 2004).

However, having a website is not enough. Its *content* should be engaging. Every company must create a value statement that clearly communicates the value of their products and services relative to the competition, without modesty (Mohammed 2011). Although a recent research from University of Padova shows the quality of corporate websites from Veneto is among the highest in Italy, we confirm that juvenile companies fit in the overall picture of poor communication abilities depicted by Bassi (2012). The only exception is found in those companies who work in the web communication and advertising sector.

[1] source: Eurostat (isoc_ci_cd_en2)

Look for knowledge and expertise exchange from/to other sectors The stories of Coccitech and MicroLife teach the principle that innovation can take place and new business opportunities can arise when entrepreneurs look in other sectors for ideas, solutions, or even new markets. This is commonly called "cross-industry innovation."

Enkel & Gassmann (2010) point out how there are many successful examples of technological spillovers from other industries: BMW's iDrive system was transferred from the game industry, while Nike's shock absorbers were adapted from Formula One racing technology.

Taking advantage of exchanges with centres generating new knowledge, such as local universities or research centres, can be useful, particularly for smaller companies, that do not have the size and resources to undergo large R&D projects in-house (Lawton Smith 2007).

Coccitech's case highlights that it is useful **not to neglect traditional economic sectors** where Italy still excels, as innovative businesses can arise from those industries as well. Wine industry is just an example. In general, traditional industries, which are predominantly characterised by the presence of SMEs, only exhibit a limited R&D intensity (Felix 2006) and innovation capacity (von Tunzelmann & Acha 2004). So, firms in traditional sectors are willing to partner with other companies or research centres to join forces and profit from information sharing.

Coccitech's case also makes clear that a deep understanding of the domain is necessary to have the idea of in which direction new products and services should be developed. This is the right place where 1.5-gen entrepreneurs perfectly fit.

Plan early for a multinational strategy One thing that all the interviewed companies share, is the common belief that nowadays a new born company cannot address only the Italian market, but has to develop an international presence as soon as it is feasible. The purpose is to to seek and exploit more profitable customers, or to build partnerships with other compa-

nies. The underlying message is that Italian tough economic conditions dictate to look beyond national borders. Drawlight's CEO stresses how being known abroad requires continous commitment and frequent flights to attend fairs, expos, conferences, and face-to-face meetings. MicroLife and Solwa planned from their very first steps to target Africa and developing countries both for a business and for a humanitarian purpose. Coccitech is collaborating with a University in Brazil and with some French winemakers to test and export their new technologies and products. Finally, Veasyt clearly foresees to open their platform to a worldwide audience.

The question raised by some entrepreneurs then is: if the plan is to go international, is it worth to start a company in Italy at all? In fact, in the last years Italian press has been talking more and more about the "brain drain" of younger generations. The main reason why many young entreprenurs seek glory outside Italy are the ease of obtaining financing, tax relief for start-ups, and, above all, a culture more prepare to accomodate innovative companies, especially in the digital field (Di Lucchio 2013).

Suggestions for further research

This work has only scratched the surface of youth entrepreneurship in Veneto.

We believe and hope there are more innovative companies founded by young people in Veneto than those we were able to discover and interview. Further research should keep digging and try to overcome the suspicion many entrepreneurs still have to share their own stories and ideas.

Also, since the nature of our investigation led to find mostly product innovation, future research should focus on process innovation as well.

Finally, during our investigation, we asked ourselves many questions based on our findings. Most of them were outside the scope of this thesis. As our filtering process led ultimately to examine companies having a website, further research should take into account those that overlooks online presentation and communication. Who are they? What markets do they address? What is

is the role of innovation in their business model, if any? Future researchers could also investigate on *why* online presence is not understood by such a high amount of companies in Veneto: What is their belief and feeling about it? Is investing in an online presence really worth it in Veneto?

Appendix A

Balance sheets

Drawlight Srl

Table A.1: Balance Sheet of Drawlight Srl

Key financials & employees

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
Revenues from sales and services	259987	140802
EBITDA	27790	18873
Profit (loss)	6611	6844
Total assets	91273	71819
Total shareholder's funds	16955	16844
Net financial position	n.a.	-6848
EBITDA/vendite (%)	10.68	13.40
Return on sales (ROS) (%)	5.97	9.28
Return on asset (ROA) (%)	17.01	18.20
Return on equity (ROE) (%)	38.99	40.63
Debt/equity ratio	n.a.	0.05
Banks/turnover (%)	n.a.	0.57
Debt/EBITDA ratio	n.a.	0.04
Total assets turnover (times)	2.85	1.96
Number of employees	3	3

Balance sheet

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
Assets		
A. TOTAL receivables due from shareholders	5000	5000
Called share capital	0	0
B. TOTAL FIXED ASSETS	39120	28212
B.I. TOTAL INTANGIBLE FIXED ASSETS	10769	7906
B.I.1. Start-up and expansion costs	n.a.	n.a.
B.I.2. Research and dev. exp.	n.a.	n.a.
B.I.3. Ind. patents and intellect. property rights	n.a.	n.a.
B.I.4. Concessions, licenses, trademarks and similar rights	n.a.	n.a.
B.I.5. Goodwill	n.a.	n.a.
B.I.6. Additions in progress and advances	n.a.	n.a.

Table A.1 – continued from previous page

B.I.7. Others	n.a.	n.a.
(Amortization provision)	7450	3089
B.II. TOTAL TANGIBLE FIXED ASSETS	28351	20306
B.II.1. Land and buildings	n.a.	n.a.
B.II.2. Plant and machinery	n.a.	n.a.
B.II.3. Indust. and commercial equipment	n.a.	n.a.
B.II.4. Other assets	n.a.	n.a.
B.II.5. Additions in progress and advances	n.a.	n.a.
(Depreciation provision)	10614	2711
B.III. TOTAL FINANCIAL FIXED ASSETS	0	0
B.III.1. Total equity investments	0	0
B.III.1.a. Subsidiary companies	0	0
B.III.1.b. Associated companies	0	0
B.III.1.c. Parent companies	0	0
B.III.1.d. Other companies	0	0
B.III.2. Total Receivables	0	0
B.III.2.a. Due from subsidiary comp.	0	0
B.III.2.a. Due from subs. comp. - beyond 12 months	0	0
B.III.2.b. Due from assoc. comp.	0	0
B.III.2.b. Due from assoc. comp. - beyond 12 months	0	0
B.III.2.c. Due from parent comp.	0	0
B.III.2.c. Due from parent comp. - beyond 12 months	0	0
B.III.2.d. Due from other comp.	0	0
B.III.2.d. Due from other comp. - beyond 12 months	0	0
B.III. FINANCIAL RECEIV. WITHIN 12 MONTHS	0	0
B.III. FINANCIAL RECEIV. BEYOND 12 MONTHS	0	0
B.III.3. Other securities	0	0
B.III.4. Own shares	0	0
Own shares: par value	0	0
C. TOTAL CURRENT ASSETS	42275	35990
C.I. TOTAL INVENTORIES	0	0
C.I.1. Raw and consumable materials	0	0
C.I.2. Work in progress and semifinished products	0	0
C.I.3. Contract work in progress	0	0
C.I.4. Finished products and goods	0	0
C.I.5. Advances	0	0
C.II. TOTAL RECEIVABLES	21833	28337
C.II.1. Trade accounts	n.a.	28151
C.II.1. Trade accounts - beyond 12 months	0	0
C.II.2. Due from subs. comp.	n.a.	n.a.
C.II.2. Due from subs. comp. - beyond 12 months	0	0
C.II.3. Due from assoc. comp.	n.a.	0
C.II.3. Due from assoc. comp. - beyond 12 months	0	0
C.II.4. Due from parent comp.	n.a.	0
C.II.4. Due from parent comp. - beyond 12 months	0	0
C.II.4.bis Tax receivables	n.a.	186
C.II.4.bis Tax receiv. - beyond 12 months	0	0
C.II.4.ter Tax receiv. for prepaid taxes	n.a.	0
C.II.4.ter Tax receiv. for prepaid taxes - beyond 12 months	0	0
C.II.5. Receiv. due from others	n.a.	0
C.II.5. Receiv. due from others - beyond 12 months	0	0
C.II. RECEIV. DUE WITHIN 12 MONTHS	21833	28337
C.II. RECEIV. DUE BEYOND 12 MONTHS	0	0
C.III. TOTAL FINANCIAL ASSETS	0	0
C.III.1. Invest. in subs. comp.	0	0
C.III.2. Invest. in assoc. comp.	0	0
C.III.3. Invest. in parent comp.	0	0
C.III.4. Other investments	0	0
C.III.5. Own shares	0	0
C.III.5. Own shares: par value	0	0
C.III.6. Other securities	0	0
C.IV. TOTAL LIQUID FUNDS	20442	7653
C.IV.1. Bank and postal deposits	n.a.	n.a.
C.IV.2. Checks	n.a.	n.a.
C.IV.3. Cash and cash equivalents	n.a.	n.a.
D. TOTAL ACCRUED INCOME AND PREPAID EXPENSES	4878	2617
Accrued income and prepaid exp.	n.a.	n.a.
TOTAL ASSETS	91273	71819

Table A.1 – continued from previous page

Liabilities

Shareholders' funds

A. TOTAL SHAREHOLDERS' FUNDS	16955	16844
A.I. Capital stock	10000	10000
A.II. Share premium reserve	0	0
A.III. Revaluation reserves	0	0
A.IV. Legal reserve	342	0
A.V. Statutory reserves	0	0
A.VI. Reserve for treasury stock	0	0
A.VII. Other reserves	2	0
A. GROUP consolidation reserve	n.a.	n.a.
A.VIII. Retained earnings (losses)	0	0
A.IX. Profit (loss) for the year	6611	6844
Group capital stock and reserves	n.a.	n.a.
Minority interests in cap. and reserves	n.a.	n.a.
Minority interests in profit (loss) for the year	n.a.	n.a.
MINORITY INTERESTS SHAREHOLDERS' FUNDS	n.a.	n.a.
B. TOTAL PROVISIONS FOR RISKS AND CHARGES	36	2489
B.1. Employee pensions and similar obligations	n.a.	n.a.
B.2. Taxation (including deferred taxation)	n.a.	n.a.
B.3. Other provisions	n.a.	n.a.
Consolidation provision	n.a.	n.a.
C. SEVERANCE INDEMNITY RESERVE	12212	2344
Payables		
D. TOTAL PAYABLES	59438	45821
D.1. Bonds	n.a.	0
D.1. Bonds beyond 12 months	0	0
D.2. Convertible bonds	n.a.	0
D.2. Convertible bonds - beyond 12 months	0	0
D.3. Due to shareholders for loans	n.a.	0
D.3. Due to shareholders for loans - beyond 12 months	0	0
D.4. Due to banks	n.a.	805
D.4. Due to banks - beyond 12 months	0	0
D.5. Due to other lenders	n.a.	0
D.5. Due to other lenders - beyond 12 months	0	0
D.6. Advances	n.a.	0
D.6. Advances - beyond 12 months	0	0
D.7. Due to suppliers	n.a.	26299
D.7. Due to suppliers	0	0
D.8. Negotiable instruments	n.a.	0
D.8. Negotiable instruments - beyond 12 months	0	0
D.9. Due to subsidiary companies	n.a.	0
D.9. Due to subsidiary companies - beyond 12 months	0	0
D.10. Due to associated companies	n.a.	0
D.10. Due to associated companies -beyond 12 months	0	0
D.11. Due to parent companies	n.a.	0
D.11. Due to parent companies beyond 12 months	0	0
D.12. Tax payable	n.a.	11902
D.12. Tax payable beyond 12 months	0	0
D.13. Due to social security institutions	n.a.	862
D.13. Due to social security institutions - beyond 12 months	0	0
D.14. Other payables	n.a.	5953
D.14. Other payables beyond 12 months	0	0
D. Payables due within 12 months	59438	45821
D. Payables due beyond 12 months	0	0
Total payables during period	59438	45821
Total payables after period	0	0
E. TOTAL ACCRUED EXPENSES AND DEFERRED INCOME	2632	4321
Fees on loans	n.a.	n.a.
TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	91273	71819
TOTAL MEMORANDUM ACCOUNTS	0	0
TOTAL WARRANTIES SUPPLIED	0	0

Profit and loss account

Table A.1 – continued from previous page

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
A. TOTAL VALUE OF PRODUCTION	260092	140808
A.1. Revenues from sales and services	259987	140802
A.2. Changes in inventories	0	0
A.3. Changes in contract work in progress	0	0
A.2. + A.3. Total changes	0	0
A.4. Additions to fixed assets	0	0
A.5. Other revenue	105	6
operating grants	0	0
B. TOTAL PRODUCTION COSTS	244568	127735
B.6. Raw, consum. mat. and goods for resale	9526	2287
B.7. Services	120419	65696
B.8. Use of third parties assets	20425	6884
B.9. Total personnel costs	77851	39904
B.9.a. Wages and salaries	70969	36924
B.9.b. Social security charges	1984	636
B.9.c. Severance indemnities	4898	2344
B.9.d. Pensions and similar obligations	0	0
B.9.e. Other costs	0	0
B.9.f. Severance indemnity + Pension + Other costs	4898	2344
B.10. Total depreciation, amortization and writedowns	12266	5800
B.10.a. Amort. of intangible fixed assets	4362	3089
B.10.b. Depr. of tangible fixed assets	7904	2711
B.10.c. Writedown of fixed assets	0	0
B.10.a+b+c. Depreciation, amortization and writedowns of fixed assets	12266	5800
B.10.d. Writedown of receivables	0	0
B.11. Change in inventory of raw and consumable materials	0	0
B.12. Provisions fo risks and charges	0	0
B.13. Other provisions	0	0
B.14. Other operating expenses	4081	7164
OPERATING MARGIN	15524	13073
Added Value	105641	58777
C. TOTAL FINANCIAL INCOME AND CHARGES	-247	-191
C.15. Total income from equity investments	0	0
Subsidiaries/Associated comp.	n.a.	n.a.
C.16. Total other financial income	3	24
C.16.a. From financial receivables	0	0
Subs. and assoc. Comp.	n.a.	n.a.
C.16.b. From securities held as fixed assets	0	0
C.16.c. From securities held as current assets	0	0
C.16.b+c. From securities	0	0
C.16.d. Income other than the above	3	24
Income other than the above (subsidiaries and associates companies)	n.a.	n.a.
C.17. Total Financial Income and Charges	250	75
– Financial Income and Charges from financial receivables Subs. and assoc.	n.a.	n.a.
C.17.bis Profit and Loss on Foreign Exchange	0	-140
D. TOTAL FINANCIAL ASSETS ADJUSTMENTS	0	0
D.18. Total Revaluations	0	0
D.18.a. Reval. of equity investments	0	0
D.18.b. Reval. of other financial assets	0	0
D.18.c. Reval. of securities	0	0
D.19. Total Writedowns	0	0
D.19.a. Writedowns of equity invest.	0	0
D.19.b. Writedowns of other fin. Ass.	0	0
D.19.c. Writedowns of securities	0	0
E. TOTAL EXTRAORDINARY REVENUES AND CHARGES	-1	-428
E.20. Extraordinary revenues	0	0
Capital gains	0	0
E.21. Extraordinary charges	1	428
Capital losses	0	428
Taxes previous period	0	0
PROFIT/LOSS BEFORE TAXATION	15276	12454
22. Total current, deferred and prepaid income taxes	8665	5610
22.a Current taxes	8665	5610
22.b Prepaid and deferred taxes	0	0

Table A.1 – continued from previous page

23. PROFIT (LOSS)	6611	6844
PROFIT (LOSS) THIRD PARTIES	n.a.	n.a.
PROFIT (LOSS) GROUP	6611	6844
Employees	3	3

Ratios

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
1. Financial indicators		
- Liquidity ratio	0.71	0.79
- Current ratio	0.71	0.79
- Current liabilities/Tot ass.	1.00	1.00
- Long/med term liab/Tot ass.	0.00	0.00
- Tang. fixed ass./Share funds	1.67	1.21
- Depr./Tang. fixed assets	0.37	0.13
- Leverage	5.38	4.26
- Coverage of fixed assets	0.43	0.60
- Banks/Turnover	n.a.	0.57
- Cost of debit	n.a.	9.32
- Interest/Operating profit	111.16	251.64
- Interest/Turnover	0.10	0.05
- Solvency ratio	18.58	23.45
- Share funds/Liabilities	0.29	0.37
- Net Financial Position	n.a.	-6848.00
- Debt/Equity ratio	n.a.	0.05
- Debt/EBITDA ratio	n.a.	0.04
2. Management ratios		
- Total assets turnover (times)	2.85	1.96
- Working cap. turnover (times)	6.15	3.91
- Incidenza circolante operativo	n.a.	1.32
- Stocks/Turnover (days)	0	0
- Stocks/Cost goods sold (days)	0	0
- Durata media dei crediti al lordo IVA (days)	n.a.	72.97
- Durata media dei debiti al lordo IVA (days)	n.a.	128.22
- Durata Ciclo Commerciale (days)	n.a.	-55.24
3. Profitability ratios		
- EBITDA	27790	18873
- EBITDA/Vendite	10.68	13.40
- Return on asset (ROA)	17.01	18.20
- Return on investment (ROI)	n.a.	n.s.
- Return on sales (ROS)	5.97	9.28
- Return on equity (ROE)	38.99	40.63
- Net P&L / Operating P&L	42.59	52.35
4. Productivity ratios		
- Number of employees	3	3
- Turnover per employee (Th./Empl.)	86.70	46.94
- Added value per employee (Th./Empl.)	35.21	19.59
- Staff Costs per employee (Th./Empl.)	25.95	13.30
- Turnover/Staff Costs	3.34	3.53
5. Significant data		
- Net working capital	-17163	-9831
- Gross profit	250461	138515
- Net short term assets	n.a.	-10017
- Share funds - Fixed assets	-22165	-11368
- Cash Flow	18877	12644

Microlife Srl

Table A.2: Balance Sheet of Microlife Srl

KEY FINANCIALS & EMPLOYEES

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
Revenues from sales and services	242,774	246,844
EBITDA	26,808	-218,385
Profit (loss)	3,962	-236,516
Total assets	365,408	262,693
Total shareholder's funds	165,415	101,334
Net financial position	72,420	18,950
EBITDA/vendite (%)	11.04	-80.68
Return on sales (ROS) (%)	4.59	n.s.
Return on asset (ROA) (%)	3.05	-89.01
Return on equity (ROE) (%)	2.40	n.s.
Debt/equity ratio	0.44	0.44
Banks/turnover (%)	30.12	14.93
Debt/EBITDA ratio	2.73	-0.20
Total assets turnover (times)	0.66	0.94
Number of employees	n.a.	2

BALANCE SHEET

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
Assets		
A. TOTAL receivables due from shareholders	0	0
Called share capital	0	0
B. TOTAL FIXED ASSETS	69,590	73,847
B.I. TOTAL INTANGIBLE FIXED ASSETS	51,372	53,047
B.I.1. Start-up and expansion costs	n.a.	n.a.
B.I.2. Research and dev. exp.	n.a.	n.a.
B.I.3. Ind. patents and intellect. property rights	n.a.	n.a.
B.I.4. Concessions, licenses, trademarks and similar rights	n.a.	n.a.
B.I.5. Goodwill	n.a.	n.a.
B.I.6. Additions in progress and advances	n.a.	n.a.
B.I.7. Others	n.a.	n.a.
(Amortization provision)	36,192	22,184
B.II. TOTAL TANGIBLE FIXED ASSETS	15,214	17,796
B.II.1. Land and buildings	n.a.	n.a.
B.II.2. Plant and machinery	n.a.	n.a.
B.II.3. Indust. and commercial equipment	n.a.	n.a.
B.II.4. Other assets	n.a.	n.a.
B.II.5. Additions in progress and advances	n.a.	n.a.
(Depreciation provision)	5,758	4,109
B.III. TOTAL FINANCIAL FIXED ASSETS	3,004	3,004
B.III.1. Total equity investments	n.a.	n.a.
B.III.1.a. Subsidiary companies	n.a.	n.a.
B.III.1.b. Associated companies	n.a.	n.a.
B.III.1.c. Parent companies	n.a.	n.a.
B.III.1.d. Other companies	n.a.	n.a.
B.III.2. Total Receivables	0	0
B.III.2.a. Due from subsidiary comp.	0	0
B.III.2.a. Due from subs. comp. - beyond 12 months	0	0
B.III.2.b. Due from assoc. comp.	0	0
B.III.2.b. Due from assoc. comp. - beyond 12 months	0	0
B.III.2.c. Due from parent comp.	0	0
B.III.2.c. Due from parent comp. - beyond 12 months	0	0
B.III.2.d. Due from other comp.	0	0
B.III.2.d. Due from other comp. - beyond 12 months	0	0
B.III. FINANCIAL RECEIV. WITHIN 12 MONTHS	0	0
B.III. FINANCIAL RECEIV. BEYOND 12 MONTHS	0	0
B.III.3. Other securities	n.a.	n.a.

Table A.2 – continued from previous page

B.III.4. Own shares	n.a.	n.a.
Own shares: par value	n.a.	n.a.
C. TOTAL CURRENT ASSETS	295,744	187,883
C.I. TOTAL INVENTORIES	42,054	64,499
C.I.1. Raw and consumable materials	n.a.	n.a.
C.I.2. Work in progress and semifinished products	n.a.	n.a.
C.I.3. Contract work in progress	n.a.	n.a.
C.I.4. Finished products and goods	n.a.	n.a.
C.I.5. Advances	n.a.	n.a.
C.II. TOTAL RECEIVABLES	252,963	97,935
C.II.1. Trade accounts	217,814	64,428
C.II.1. Trade accounts - beyond 12 months	0	0
C.II.2. Due from subs. comp.	n.a.	n.a.
C.II.2. Due from subs. comp. - beyond 12 months	0	0
C.II.3. Due from assoc. comp.	0	0
C.II.3. Due from assoc. comp. - beyond 12 months	0	0
C.II.4. Due from parent comp.	0	0
C.II.4. Due from parent comp. - beyond 12 months	0	0
C.II.4.bis Tax receivables	22,487	32,856
C.II.4.bis Tax receiv. - beyond 12 months	0	0
C.II.4.ter Tax receiv. for prepaid taxes	0	0
C.II.4.ter Tax receiv. for prepaid taxes - beyond 12 months	0	0
C.II.5. Receiv. due from others	12,662	651
C.II.5. Receiv. due from others - beyond 12 months	0	0
C.II. RECEIV. DUE WITHIN 12 MONTHS	252,963	97,935
C.II. RECEIV. DUE BEYOND 12 MONTHS	0	0
C.III. TOTAL FINANCIAL ASSETS	0	0
C.III.1. Invest. in subs. comp.	0	0
C.III.2. Invest. in assoc. comp.	0	0
C.III.3. Invest. in parent comp.	0	0
C.III.4. Other investments	0	0
C.III.5. Own shares	0	0
C.III.5. Own shares: par value	0	0
C.III.6. Other securities	0	0
C.IV. TOTAL LIQUID FUNDS	727	25,449
C.IV.1. Bank and postal deposits	n.a.	n.a.
C.IV.2. Checks	n.a.	n.a.
C.IV.3. Cash and cash equivalents	n.a.	n.a.
D. TOTAL ACCRUED INCOME AND PREPAID EXPENSES	74	963
Accrued income and prepaid exp.	n.a.	n.a.
TOTAL ASSETS	365,408	262,693
Liabilities		
Shareholders' funds		
A. TOTAL SHAREHOLDERS' FUNDS	165,415	101,334
A.I. Capital stock	66,760	60,080
A.II. Share premium reserve	94,694	283,523
A.III. Revaluation reserves	0	0
A.IV. Legal reserve	0	0
A.V. Statutory reserves	0	0
A.VI. Reserve for treasury stock	0	0
A.VII. Other reserves	-1	0
A. GROUP consolidation reserve	n.a.	n.a.
A.VIII. Retained earnings (losses)	0	-5,753
A.IX. Profit (loss) for the year	3,962	-236,516
Group capital stock and reserves	n.a.	n.a.
Minority interests in cap. and reserves	n.a.	n.a.
Minority interests in profit (loss) for the year	n.a.	n.a.
MINORITY INTERESTS SHAREHOLDERS' FUNDS	n.a.	n.a.
B. TOTAL PROVISIONS FOR RISKS AND CHARGES	0	0
B.1. Employee pensions and similar obligations	0	0
B.2. Taxation (including deferred taxation)	0	0
B.3. Other provisions	0	0
Consolidation provision	n.a.	n.a.
C. SEVERANCE INDEMNITY RESERVE	4,608	2,681

Table A.2 – continued from previous page

Payables		
D. TOTAL PAYABLES	188,021	155,708
D.1. Bonds	0	0
D.1. Bonds beyond 12 months	0	0
D.2. Convertible bonds	0	0
D.2. Convertible bonds - beyond 12 months	0	0
D.3. Due to shareholders for loans	0	0
D.3. Due to shareholders for loans - beyond 12 months	0	0
D.4. Due to banks	73,147	40,399
D.4. Due to banks - beyond 12 months	0	0
D.5. Due to other lenders	0	4,000
D.5. Due to other lenders - beyond 12 months	0	0
D.6. Advances	0	0
D.6. Advances - beyond 12 months	0	0
D.7. Due to suppliers	69,235	95,470
D.7. Due to suppliers	0	0
D.8. Negotiable instruments	0	0
D.8. Negotiable instruments - beyond 12 months	0	0
D.9. Due to subsidiary companies	0	0
D.9. Due to subsidiary companies - beyond 12 months	0	0
D.10. Due to associated companies	0	0
D.10. Due to associated companies -beyond 12 months	0	0
D.11. Due to parent companies	0	0
D.11. Due to parent companies beyond 12 months	0	0
D.12. Tax payable	14,208	7,435
D.12. Tax payable beyond 12 months	0	0
D.13. Due to social security institutions	6,337	3,529
D.13. Due to social security institutions - beyond 12 months	0	0
D.14. Other payables	25,094	4,875
D.14. Other payables beyond 12 months	0	0
D. Payables due within 12 months	188,021	155,708
D. Payables due beyond 12 months	0	0
Total payables during period	188,021	155,708
Total payables after period	0	0
E. TOTAL ACCRUED EXPENSES AND DEFERRED INCOME	7,364	2,970
Fees on loans	n.a.	n.a.
TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	365,408	262,693
TOTAL MEMORANDUM ACCOUNTS	0	0
TOTAL WARRANTIES SUPPLIED	0	0

PROFIT AND LOSS ACCOUNT

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
A. TOTAL VALUE OF PRODUCTION	278,137	316,099
A.1. Revenues from sales and services	242,774	246,844
A.2. Changes in inventories	35,314	45,430
A.3. Changes in contract work in progress	0	0
A.2. + A.3. Total changes	35,314	45,430
A.4. Additions to fixed assets	0	0
A.5. Other revenue	49	23,825
operating grants	0	23,750
B. TOTAL PRODUCTION COSTS	266,984	549,916
B.6. Raw, consum. mat. and goods for resale	28,784	205,361
B.7. Services	114,844	263,918
B.8. Use of third parties assets	4,246	17,777
B.9. Total personnel costs	41,522	44,194
B.9.a. Wages and salaries	32,150	36,853
B.9.b. Social security charges	6,058	4,520
B.9.c. Severance indemnities	3,037	2,641
B.9.d. Pensions and similar obligations	0	0
B.9.e. Other costs	277	180
B.9.f. Severance indemnity + Pension + Other costs	3,314	2,821
B.10. Total depreciation, amortization and writedowns	15,655	15,432
B.10.a. Amort. of intangible fixed assets	13,190	13,190
B.10.b. Depr. of tangible fixed assets	2,465	2,242
B.10.c. Writedown of fixed assets	0	0

Table A.2 – continued from previous page

B.10.a+b+c. Depreciation, amortization and writedowns of fixed assets	15,655	15,432
B.10.d. Writedown of receivables	0	0
B.11. Change in inventory of raw and consumable materials	57,759	-5,339
B.12. Provisions fo risks and charges	0	0
B.13. Other provisions	0	0
B.14. Other operating expenses	4,174	8,573
OPERATING MARGIN	11,153	-233,817
Added Value	68,330	-174,191
C. TOTAL FINANCIAL INCOME AND CHARGES	-4,154	-3,416
C.15. Total income from equity investments	0	0
Subsidiaries/Associated comp.	n.a.	n.a.
C.16. Total other financial income	3	38
C.16.a. From financial receivables	0	0
Subs. and assoc. Comp.	n.a.	n.a.
C.16.b. From securities held as fixed assets	0	0
C.16.c. From securities held as current assets	0	0
C.16.b+c. From securities	0	0
C.16.d. Income other than the above	3	38
Income other than the above (subsidiaries and associates companies)	n.a.	n.a.
C.17. Total Financial Income and Charges	4,157	3,058
– Financial Income and Charges from financial receivables Subs. and assoc.	n.a.	n.a.
C.17.bis Profit and Loss on Foreign Exchange	0	-396
D. TOTAL FINANCIAL ASSETS ADJUSTMENTS	0	0
D.18. Total Revaluations	0	0
D.18.a. Reval. of equity investments	0	0
D.18.b. Reval. of other financial assets	0	0
D.18.c. Reval. of securities	0	0
D.19. Total Writedowns	0	0
D.19.a. Writedowns of equity invest.	0	0
D.19.b. Writedowns of other fin. Ass.	0	0
D.19.c. Writedowns of securities	0	0
E. TOTAL EXTRAORDINARY REVENUES AND CHARGES	2,318	717
E.20. Extraordinary revenues	2,379	2,411
Capital gains	0	0
E.21. Extraordinary charges	61	1,694
Capital losses	0	0
Taxes previous period	0	0
PROFIT/LOSS BEFORE TAXATION	9,317	-236,516
22. Total current, deferred and prepaid income taxes	5,355	0
22.a Current taxes	5,355	0
22.b Prepaid and deferred taxes	0	0
23. PROFIT (LOSS)	3,962	-236,516
PROFIT (LOSS) THIRD PARTIES	n.a.	n.a.
PROFIT (LOSS) GROUP	3,962	-236,516
Employees	n.a.	2

RATIOS

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)	12/31/2011 EUR 12 months Abbreviated (D)
1. Financial indicators		
- Liquidity ratio	1.35	0.79
- Current ratio	1.57	1.21
- Current liabilities/Tot ass.	1.00	1.00
- Long/med term liab/Tot ass.	0.00	0.00
- Tang. fixed ass./Share funds	0.09	0.18
- Depr./Tang. fixed assets	0.38	0.23
- Leverage	2.21	2.59
- Coverage of fixed assets	2.38	1.37
- Banks/Turnover	30.12	14.93
- Cost of debit	5.68	7.57
- Interest/Operating profit	6.45	n.s.
- Interest/Turnover	1.71	1.13
- Solvency ratio	45.27	38.58
- Share funds/Liabilities	0.88	0.65

Table A.2 – continued from previous page

- Net Financial Position	72,420	18,950
- Debt/Equity ratio	0.44	0.44
- Debt/EBITDA ratio	2.73	-0.20
2. Management ratios		
- Total assets turnover (times)	0.66	0.94
- Working cap. turnover (times)	0.82	1.31
- Incidenza circolante operativo	78.51	12.36
- Stocks/Turnover (days)	n.a.	n.a.
- Stocks/Cost goods sold (days)	n.a.	n.a.
- Durata media dei crediti al lordo IVA (days)	327.41	86.88
- Durata media dei debiti al lordo IVA (days)	170.89	71.55
- Durata Ciclo Commerciale (days)	n.a.	n.a.
3. Profitability ratios		
- EBITDA	26,808	-218,385
- EBITDA/Vendite	11.04	-80.68
- Return on asset (ROA)	3.05	-89.01
- Return on investment (ROI)	4.68	n.s.
- Return on sales (ROS)	4.59	n.s.
- Return on equity (ROE)	2.40	n.s.
- Net P&L / Operating P&L	35.52	n.s.
4. Productivity ratios		
- Number of employees	n.a.	2
- Turnover per employee (Th./Empl.)	n.a.	135
- Added value per employee (Th./Empl.)	n.a.	n.s.
- Staff Costs per employee (Th./Empl.)	n.a.	22
- Turnover/Staff Costs	5.85	6.12
5. Significant data		
- Net working capital	107,723	32,175
- Gross profit	191,545	92,252
- Net short term assets	43,182	-65,180
- Share funds - Fixed assets	95,825	27,487
- Cash Flow	19,617	-221,084

Solwa Srl

Table A.3: Balance Sheet of Solwa Srl

KEY FINANCIALS & EMPLOYEES

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
Revenues from sales and services	13,755
EBITDA	-49
Profit (loss)	-676
Total assets	16,407
Total shareholder's funds	9,324
Net financial position	-13,174
EBITDA/vendite (%)	-0.36
Return on sales (ROS) (%)	-4.93
Return on asset (ROA) (%)	-4.13
Return on equity (ROE) (%)	-7.25
Debt/equity ratio	0.00
Banks/turnover (%)	0.00
Debt/EBITDA ratio	0.00
Total assets turnover (times)	0.84
Number of employees	0

BALANCE SHEET

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
Assets	
A. TOTAL receivables due from shareholders	0
Called share capital	0
B. TOTAL FIXED ASSETS	1,258
B.I. TOTAL INTANGIBLE FIXED ASSETS	1,258
B.I.1. Start-up and expansion costs	n.a.
B.I.2. Research and dev. exp.	n.a.
B.I.3. Ind. patents and intellect. property rights	n.a.
B.I.4. Concessions, licenses, trademarks and similar rights	n.a.
B.I.5. Goodwill	n.a.
B.I.6. Additions in progress and advances	n.a.
B.I.7. Others	n.a.
(Amortization provision)	629
B.II. TOTAL TANGIBLE FIXED ASSETS	0
B.II.1. Land and buildings	0
B.II.2. Plant and machinery	0
B.II.3. Indust. and commercial equipment	0
B.II.4. Other assets	0
B.II.5. Additions in progress and advances	0
(Depreciation provision)	n.a.
B.III. TOTAL FINANCIAL FIXED ASSETS	0
B.III.1. Total equity investments	0
B.III.1.a. Subsidiary companies	0
B.III.1.b. Associated companies	0
B.III.1.c. Parent companies	0
B.III.1.d. Other companies	0
B.III.2. Total Receivables	0
B.III.2.a. Due from subsidiary comp.	0
B.III.2.a. Due from subs. comp. - beyond 12 months	0
B.III.2.b. Due from assoc. comp.	0
B.III.2.b. Due from assoc. comp. - beyond 12 months	0
B.III.2.c. Due from parent comp.	0
B.III.2.c. Due from parent comp. - beyond 12 months	0
B.III.2.d. Due from other comp.	0
B.III.2.d. Due from other comp. - beyond 12 months	0
B.III. FINANCIAL RECEIV. WITHIN 12 MONTHS	0
B.III. FINANCIAL RECEIV. BEYOND 12 MONTHS	0
B.III.3. Other securities	0

Table A.3 – continued from previous page

B.III.4. Own shares	0
Own shares: par value	0
C. TOTAL CURRENT ASSETS	15,149
C.I. TOTAL INVENTORIES	0
C.I.1. Raw and consumable materials	0
C.I.2. Work in progress and semifinished products	0
C.I.3. Contract work in progress	0
C.I.4. Finished products and goods	0
C.I.5. Advances	0
C.II. TOTAL RECEIVABLES	1,975
C.II.1. Trade accounts	1,422
C.II.1. Trade accounts - beyond 12 months	0
C.II.2. Due from subs. comp.	n.a.
C.II.2. Due from subs. comp. - beyond 12 months	0
C.II.3. Due from assoc. comp.	0
C.II.3. Due from assoc. comp. - beyond 12 months	0
C.II.4. Due from parent comp.	0
C.II.4. Due from parent comp. - beyond 12 months	0
C.II.4.bis Tax receivables	553
C.II.4.bis Tax receiv. - beyond 12 months	0
C.II.4.ter Tax receiv. for prepaid taxes	0
C.II.4.ter Tax receiv. for prepaid taxes - beyond 12 months	0
C.II.5. Receiv. due from others	0
C.II.5. Receiv. due from others - beyond 12 months	0
C.II. RECEIV. DUE WITHIN 12 MONTHS	1,975
C.II. RECEIV. DUE BEYOND 12 MONTHS	0
C.III. TOTAL FINANCIAL ASSETS	0
C.III.1. Invest. in subs. comp.	0
C.III.2. Invest. in assoc. comp.	0
C.III.3. Invest. in parent comp.	0
C.III.4. Other investments	0
C.III.5. Own shares	0
C.III.5. Own shares: par value	0
C.III.6. Other securities	0
C.IV. TOTAL LIQUID FUNDS	13,174
C.IV.1. Bank and postal deposits	n.a.
C.IV.2. Checks	n.a.
C.IV.3. Cash and cash equivalents	n.a.
D. TOTAL ACCRUED INCOME AND PREPAID EXPENSES	0
Accrued income and prepaid exp.	0
TOTAL ASSETS	16,407
Liabilities	
Shareholders' funds	
A. TOTAL SHAREHOLDERS' FUNDS	9,324
A.I. Capital stock	10,000
A.II. Share premium reserve	0
A.III. Revaluation reserves	0
A.IV. Legal reserve	0
A.V. Statutory reserves	0
A.VI. Reserve for treasury stock	0
A.VII. Other reserves	0
A. GROUP consolidation reserve	n.a.
A.VIII. Retained earnings (losses)	0
A.IX. Profit (loss) for the year	-676
Group capital stock and reserves	n.a.
Minority interests in cap. and reserves	n.a.
Minority interests in profit (loss) for the year	n.a.
MINORITY INTERESTS SHAREHOLDERS' FUNDS	n.a.
B. TOTAL PROVISIONS FOR RISKS AND CHARGES	0
B.1. Employee pensions and similar obligations	0
B.2. Taxation (including deferred taxation)	0
B.3. Other provisions	0
Consolidation provision	n.a.
C. SEVERANCE INDEMNITY RESERVE	0

Table A.3 – continued from previous page

Payables

D. TOTAL PAYABLES	7,083
D.1. Bonds	0
D.1. Bonds beyond 12 months	0
D.2. Convertible bonds	0
D.2. Convertible bonds - beyond 12 months	0
D.3. Due to shareholders for loans	5,000
D.3. Due to shareholders for loans - beyond 12 months	0
D.4. Due to banks	0
D.4. Due to banks - beyond 12 months	0
D.5. Due to other lenders	0
D.5. Due to other lenders - beyond 12 months	0
D.6. Advances	0
D.6. Advances - beyond 12 months	0
D.7. Due to suppliers	1,773
D.7. Due to suppliers	0
D.8. Negotiable instruments	0
D.8. Negotiable instruments - beyond 12 months	0
D.9. Due to subsidiary companies	0
D.9. Due to subsidiary companies - beyond 12 months	0
D.10. Due to associated companies	0
D.10. Due to associated companies -beyond 12 months	0
D.11. Due to parent companies	0
D.11. Due to parent companies beyond 12 months	0
D.12. Tax payable	0
D.12. Tax payable beyond 12 months	0
D.13. Due to social security institutions	0
D.13. Due to social security institutions - beyond 12 months	0
D.14. Other payables	310
D.14. Other payables beyond 12 months	0
D. Payables due within 12 months	7,083
D. Payables due beyond 12 months	0
Total payables during period	7,083
Total payables after period	0
E. TOTAL ACCRUED EXPENSES AND DEFERRED INCOME	0
Fees on loans	0
TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	16,407
TOTAL MEMORANDUM ACCOUNTS	0
TOTAL WARRANTIES SUPPLIED	0

PROFIT AND LOSS ACCOUNT

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
A. TOTAL VALUE OF PRODUCTION	13,755
A.1. Revenues from sales and services	13,755
A.2. Changes in inventories	0
A.3. Changes in contract work in progress	0
A.2. + A.3. Total changes	0
A.4. Additions to fixed assets	0
A.5. Other revenue	0
operating grants	0
B. TOTAL PRODUCTION COSTS	14,433
B.6. Raw, consum. mat. and goods for resale	3,702
B.7. Services	8,120
B.8. Use of third parties assets	1,466
B.9. Total personnel costs	0
B.9.a. Wages and salaries	0
B.9.b. Social security charges	0
B.9.c. Severance indemnities	0
B.9.d. Pensions and similar obligations	0
B.9.e. Other costs	0
B.9.f. Severance indemnity + Pension + Other costs	0
B.10. Total depreciation, amortization and writedowns	629
B.10.a. Amort. of intangible fixed assets	629
B.10.b. Depr. of tangible fixed assets	0
B.10.c. Writedown of fixed assets	0

Table A.3 – continued from previous page

B.10.a+b+c. Depreciation, amortization and writedowns of fixed assets	629
B.10.d. Writedown of receivables	0
B.11. Change in inventory of raw and consumable materials	0
B.12. Provisions fo risks and charges	0
B.13. Other provisions	0
B.14. Other operating expenses	516
OPERATING MARGIN	-678
Added Value	-49
C. TOTAL FINANCIAL INCOME AND CHARGES	1
C.15. Total income from equity investments	0
Subsidiaries/Associated comp.	n.a.
C.16. Total other financial income	1
C.16.a. From financial receivables	0
Subs. and assoc. Comp.	n.a.
C.16.b. From securities held as fixed assets	0
C.16.c. From securities held as current assets	0
C.16.b+c. From securities	0
C.16.d. Income other than the above	1
Income other than the above (subsidiaries and associates companies)	n.a.
C.17. Total Financial Income and Charges	0
– Financial Income and Charges from financial receivables Subs. and assoc.	n.a.
C.17.bis Profit and Loss on Foreign Exchange	0
D. TOTAL FINANCIAL ASSETS ADJUSTMENTS	0
D.18. Total Revaluations	0
D.18.a. Reval. of equity investments	0
D.18.b. Reval. of other financial assets	0
D.18.c. Reval. of securities	0
D.19. Total Writedowns	0
D.19.a. Writedowns of equity invest.	0
D.19.b. Writedowns of other fin. Ass.	0
D.19.c. Writedowns of securities	0
E. TOTAL EXTRAORDINARY REVENUES AND CHARGES	1
E.20. Extraordinary revenues	1
Capital gains	0
E.21. Extraordinary charges	0
Capital losses	0
Taxes previous period	0
PROFIT/LOSS BEFORE TAXATION	-676
22. Total current, deferred and prepaid income taxes	0
22.a Current taxes	0
22.b Prepaid and deferred taxes	0
23. PROFIT (LOSS)	-676
PROFIT (LOSS) THIRD PARTIES	n.a.
PROFIT (LOSS) GROUP	-676
Employees	0

RATIOS

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
1. Financial indicators	
- Liquidity ratio	2.14
- Current ratio	2.14
- Current liabilities/Tot ass.	1.00
- Long/med term liab/Tot ass.	0.00
- Tang. fixed ass./Share funds	0.00
- Depr./Tang. fixed assets	n.a.
- Leverage	1.76
- Coverage of fixed assets	7.41
- Banks/Turnover	0.00
- Cost of debit	n.a.
- Interest/Operating profit	n.a.
- Interest/Turnover	0.00
- Solvency ratio	56.83
- Share funds/Liabilities	n.a.

Table A.3 – continued from previous page

- Net Financial Position	-13,174
- Debt/Equity ratio	0.00
- Debt/EBITDA ratio	0.00
2. Management ratios	
- Total assets turnover (times)	0.84
- Working cap. turnover (times)	0.91
- Incidenza circolante operativo	-2.55
- Stocks/Turnover (days)	0.00
- Stocks/Cost goods sold (days)	0.00
- Durata media dei crediti al lordo IVA (days)	37.73
- Durata media dei debiti al lordo IVA (days)	48.70
- Durata Ciclo Commerciale (days)	-10.97
3. Profitability ratios	
- EBITDA	-49
- EBITDA/Vendite	-0.36
- Return on asset (ROA)	-4.13
- Return on investment (ROI)	-4.73
- Return on sales (ROS)	-4.93
- Return on equity (ROE)	-7.25
- Net P&L / Operating P&L	n.s.
4. Productivity ratios	
- Number of employees	0
- Turnover per employee (Th./Empl.)	n.a.
- Added value per employee (Th./Empl.)	n.a.
- Staff Costs per employee (Th./Empl.)	n.a.
- Turnover/Staff Costs	n.a.
5. Significant data	
- Net working capital	8,066
- Gross profit	10,053
- Net short term assets	7,513
- Share funds - Fixed assets	8,066
- Cash Flow	-47

Veasyt Srl

Table A.4: Balance sheet of Veasyt Srl

KEY FINANCIALS & EMPLOYEES

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
Revenues from sales and services	44,000
EBITDA	2,583
Profit (loss)	1,066
Total assets	56,288
Total shareholder's funds	11,066
Net financial position	-23,796
EBITDA/vendite (%)	4.54
Return on sales (ROS) (%)	4.54
Return on asset (ROA) (%)	4.59
Return on equity (ROE) (%)	9.63
Debt/equity ratio	0.00
Banks/turnover (%)	0.00
Debt/EBITDA ratio	0.00
Total assets turnover (times)	0.78
Number of employees	0

BALANCE SHEET

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
Assets	
A. TOTAL receivables due from shareholders	7,500
Called share capital	0
B. TOTAL FIXED ASSETS	0
B.I. TOTAL INTANGIBLE FIXED ASSETS	0
B.I.1. Start-up and expansion costs	0
B.I.2. Research and dev. exp.	0
B.I.3. Ind. patents and intellect. property rights	0
B.I.4. Concessions, licenses, trademarks and similar rights	0
B.I.5. Goodwill	0
B.I.6. Additions in progress and advances	0
B.I.7. Others	0
(Amortization provision)	n.a.
B.II. TOTAL TANGIBLE FIXED ASSETS	0
B.II.1. Land and buildings	0
B.II.2. Plant and machinery	0
B.II.3. Indust. and commercial equipment	0
B.II.4. Other assets	0
B.II.5. Additions in progress and advances	0
(Depreciation provision)	n.a.
B.III. TOTAL FINANCIAL FIXED ASSETS	0
B.III.1. Total equity investments	0
B.III.1.a. Subsidiary companies	0
B.III.1.b. Associated companies	0
B.III.1.c. Parent companies	0
B.III.1.d. Other companies	0
B.III.2. Total Receivables	0
B.III.2.a. Due from subsidiary comp.	0
B.III.2.a. Due from subs. comp. - beyond 12 months	0
B.III.2.b. Due from assoc. comp.	0
B.III.2.b. Due from assoc. comp. - beyond 12 months	0
B.III.2.c. Due from parent comp.	0
B.III.2.c. Due from parent comp. - beyond 12 months	0
B.III.2.d. Due from other comp.	0
B.III.2.d. Due from other comp. - beyond 12 months	0
B.III. FINANCIAL RECEIV. WITHIN 12 MONTHS	0
B.III. FINANCIAL RECEIV. BEYOND 12 MONTHS	0

Table A.4 – continued from previous page

B.III.3. Other securities	0
B.III.4. Own shares	0
Own shares: par value	0
C. TOTAL CURRENT ASSETS	48,788
C.I. TOTAL INVENTORIES	0
C.I.1. Raw and consumable materials	0
C.I.2. Work in progress and semifinished products	0
C.I.3. Contract work in progress	0
C.I.4. Finished products and goods	0
C.I.5. Advances	0
C.II. TOTAL RECEIVABLES	24,992
C.II.1. Trade accounts	0
C.II.1. Trade accounts - beyond 12 months	0
C.II.2. Due from subs. comp.	n.a.
C.II.2. Due from subs. comp. - beyond 12 months	0
C.II.3. Due from assoc. comp.	0
C.II.3. Due from assoc. comp. - beyond 12 months	0
C.II.4. Due from parent comp.	0
C.II.4. Due from parent comp. - beyond 12 months	0
C.II.4.bis Tax receivables	0
C.II.4.bis Tax receiv. - beyond 12 months	0
C.II.4.ter Tax receiv. for prepaid taxes	0
C.II.4.ter Tax receiv. for prepaid taxes - beyond 12 months	0
C.II.5. Receiv. due from others	24,992
C.II.5. Receiv. due from others - beyond 12 months	0
C.II. RECEIV. DUE WITHIN 12 MONTHS	24,992
C.II. RECEIV. DUE BEYOND 12 MONTHS	0
C.III. TOTAL FINANCIAL ASSETS	0
C.III.1. Invest. in subs. comp.	0
C.III.2. Invest. in assoc. comp.	0
C.III.3. Invest. in parent comp.	0
C.III.4. Other investments	0
C.III.5. Own shares	0
C.III.5. Own shares: par value	0
C.III.6. Other securities	0
C.IV. TOTAL LIQUID FUNDS	23,796
C.IV.1. Bank and postal deposits	n.a.
C.IV.2. Checks	n.a.
C.IV.3. Cash and cash equivalents	n.a.
D. TOTAL ACCRUED INCOME AND PREPAID EXPENSES	0
Accrued income and prepaid exp.	0
TOTAL ASSETS	56,288

Liabilities

Shareholders' funds

A. TOTAL SHAREHOLDERS' FUNDS	11,066
A.I. Capital stock	10,000
A.II. Share premium reserve	0
A.III. Revaluation reserves	0
A.IV. Legal reserve	0
A.V. Statutory reserves	0
A.VI. Reserve for treasury stock	0
A.VII. Other reserves	0
A. GROUP consolidation reserve	n.a.
A.VIII. Retained earnings (losses)	0
A.IX. Profit (loss) for the year	1,066
Group capital stock and reserves	n.a.
Minority interests in cap. and reserves	n.a.
Minority interests in profit (loss) for the year	n.a.
MINORITY INTERESTS SHAREHOLDERS' FUNDS	n.a.
B. TOTAL PROVISIONS FOR RISKS AND CHARGES	0
B.1. Employee pensions and similar obligations	0
B.2. Taxation (including deferred taxation)	0
B.3. Other provisions	0
Consolidation provision	n.a.
C. SEVERANCE INDEMNITY RESERVE	0

Table A.4 – continued from previous page

Payables

D. TOTAL PAYABLES	16,429
D.1. Bonds	0
D.1. Bonds beyond 12 months	0
D.2. Convertible bonds	0
D.2. Convertible bonds - beyond 12 months	0
D.3. Due to shareholders for loans	0
D.3. Due to shareholders for loans - beyond 12 months	0
D.4. Due to banks	0
D.4. Due to banks - beyond 12 months	0
D.5. Due to other lenders	0
D.5. Due to other lenders - beyond 12 months	0
D.6. Advances	0
D.6. Advances - beyond 12 months	0
D.7. Due to suppliers	2,932
D.7. Due to suppliers	0
D.8. Negotiable instruments	0
D.8. Negotiable instruments - beyond 12 months	0
D.9. Due to subsidiary companies	0
D.9. Due to subsidiary companies - beyond 12 months	0
D.10. Due to associated companies	0
D.10. Due to associated companies -beyond 12 months	0
D.11. Due to parent companies	0
D.11. Due to parent companies beyond 12 months	0
D.12. Tax payable	3,918
D.12. Tax payable beyond 12 months	0
D.13. Due to social security institutions	2,077
D.13. Due to social security institutions - beyond 12 months	0
D.14. Other payables	7,502
D.14. Other payables beyond 12 months	0
D. Payables due within 12 months	16,429
D. Payables due beyond 12 months	0
Total payables during period	16,429
Total payables after period	0
E. TOTAL ACCRUED EXPENSES AND DEFERRED INCOME	28,793
Fees on loans	n.a.
TOTAL LIABILITIES AND SHAREHOLDERS' FUNDS	56,288
TOTAL MEMORANDUM ACCOUNTS	0
TOTAL WARRANTIES SUPPLIED	0

PROFIT AND LOSS ACCOUNT

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
A. TOTAL VALUE OF PRODUCTION	56,860
A.1. Revenues from sales and services	44,000
A.2. Changes in inventories	0
A.3. Changes in contract work in progress	0
A.2. + A.3. Total changes	0
A.4. Additions to fixed assets	0
A.5. Other revenue	12,860
operating grants	12,859
B. TOTAL PRODUCTION COSTS	54,277
B.6. Raw, consum. mat. and goods for resale	763
B.7. Services	51,688
B.8. Use of third parties assets	0
B.9. Total personnel costs	0
B.9.a. Wages and salaries	0
B.9.b. Social security charges	0
B.9.c. Severance indemnities	0
B.9.d. Pensions and similar obligations	0
B.9.e. Other costs	0
B.9.f. Severance indemnity + Pension + Other costs	0
B.10. Total depreciation, amortization and writedowns	0
B.10.a. Amort. of intangible fixed assets	0
B.10.b. Depr. of tangible fixed assets	0

Table A.4 – continued from previous page

B.10.c. Writedown of fixed assets	0
B.10.a+b+c. Depreciation, amortization and writedowns of fixed assets	0
B.10.d. Writedown of receivables	0
B.11. Change in inventory of raw and consumable materials	0
B.12. Provisions fo risks and charges	0
B.13. Other provisions	0
B.14. Other operating expenses	1,826
OPERATING MARGIN	2,583
Added Value	2,583
C. TOTAL FINANCIAL INCOME AND CHARGES	-51
C.15. Total income from equity investments	0
Subsidiaries/Associated comp.	n.a.
C.16. Total other financial income	0
C.16.a. From financial receivables	0
Subs. and assoc. Comp.	n.a.
C.16.b. From securities held as fixed assets	0
C.16.c. From securities held as current assets	0
C.16.b+c. From securities	0
C.16.d. Income other than the above	0
Income other than the above (subsidiaries and associates companies)	n.a.
C.17. Total Financial Income and Charges	51
–¿ Financial Income and Charges from financial receivables Subs. and assoc.	n.a.
C.17.bis Profit and Loss on Foreign Exchange	0
D. TOTAL FINANCIAL ASSETS ADJUSTMENTS	0
D.18. Total Revaluations	0
D.18.a. Reval. of equity investments	0
D.18.b. Reval. of other financial assets	0
D.18.c. Reval. of securities	0
D.19. Total Writedowns	0
D.19.a. Writedowns of equity invest.	0
D.19.b. Writedowns of other fin. Ass.	0
D.19.c. Writedowns of securities	0
E. TOTAL EXTRAORDINARY REVENUES AND CHARGES	160
E.20. Extraordinary revenues	160
Capital gains	0
E.21. Extraordinary charges	0
Capital losses	0
Taxes previous period	0
PROFIT/LOSS BEFORE TAXATION	2,692
22. Total current, deferred and prepaid income taxes	1,626
22.a Current taxes	1,626
22.b Prepaid and deferred taxes	0
23. PROFIT (LOSS)	1,066
PROFIT (LOSS) THIRD PARTIES	n.a.
PROFIT (LOSS) GROUP	1,066
Employees	0

RATIOS

Unconsolidated	12/31/2012 EUR 12 months Abbreviated (D)
1. Financial indicators	
- Liquidity ratio	2.97
- Current ratio	2.97
- Current liabilities/Tot ass.	1.00
- Long/med term liab/Tot ass.	0.00
- Tang. fixed ass./Share funds	0.00
- Depr./Tang. fixed assets	n.a.
- Leverage	5.09
- Coverage of fixed assets	n.a.
- Banks/Turnover	0.00
- Cost of debit	n.a.
- Interest/Operating profit	50.65
- Interest/Turnover	0.09
- Solvency ratio	19.66

Table A.4 – continued from previous page

- Share funds/Liabilities	n.a.
- Net Financial Position	-23,796
- Debt/Equity ratio	0.00
- Debt/EBITDA ratio	0.00
2. Management ratios	
- Total assets turnover (times)	0.78
- Working cap. turnover (times)	0.90
- Incidenza circolante operativo	-5.16
- Stocks/Turnover (days)	0.00
- Stocks/Cost goods sold (days)	0.00
- Durata media dei crediti al lordo IVA (days)	0.00
- Durata media dei debiti al lordo IVA (days)	20.40
- Durata Ciclo Commerciale (days)	-20.40
3. Profitability ratios	
- EBITDA	2,583
- EBITDA/Vendite	4.54
- Return on asset (ROA)	4.59
- Return on investment (ROI)	23.34
- Return on sales (ROS)	4.54
- Return on equity (ROE)	9.63
- Net P&L / Operating P&L	41.27
4. Productivity ratios	
- Number of employees	0
- Turnover per employee (Th./Empl.)	n.a.
- Added value per employee (Th./Empl.)	n.a.
- Staff Costs per employee (Th./Empl.)	n.a.
- Turnover/Staff Costs	n.a.
5. Significant data	
- Net working capital	32,359
- Gross profit	43,237
- Net short term assets	32,359
- Share funds - Fixed assets	11,066
- Cash Flow	1,066

Bibliography

Aldrich, H., Renzulli, L. & Langton, N. (1998), 'Passing on privilege: Resources provided by self-employed parents to their self-employed children', *Research in Social Stratification and Mobility* **16**, 291–318.

Alpa, G. & Zeno-Zencovich, V. (2007), *Italian private law*, Routledge Cavendish.

Banca d'Italia (2012), 'Relazione annuale presentata all'assembela ordinaria dei partecipanti'.

Bassi, F. (2012), 'Pmi bocciate alla prova del web: la conquista di internet è ancora lontana'.

Blau, P. & Duncan, O. (1967), 'The american occupational structure'.

Bosma, N., Wennekers, S. & Amorós, J. E. (2012), 'Global entrepreneurship monitor 2011 extended report'.

Campobasso, G. (2011), *Manuale di diritto commerciale*, UTET.

Cantillon, R. (1755), *Essai Sur la Nature Du Commerce en Général. Edited with an English Translation and Other Material by Henry Higgs*, 1931.

Casson, M. (1982), *The entrepreneur: An economic theory*, Rowman & Littlefield Pub Incorporated.

Danese, L. (2008), Guida "Venezia": Nel sestriere del Dorsoduro. Proposta di traduzione dall'italiano alla lingua dei segni italiana, Master's Thesis on Language Sciences, Università Ca' Foscari, Venezia.

Di Lucchio, M. (2013), '"Vado all'estero per creare un'azienda" Le start-up italiane ora aprono oltre-confine'. [Last accessed September 2013].
URL: *http://www.corriere.it/economia/13_settembre_25/start-up-imprese-estero-aziende_764b439a-25dd-11e3-baac-128ffcce9856.shtml*

Dunn, T. & Holtz-Eakin, D. (1996), Financial capital, human capital, and the transition to self-employment: Evidence from intergenerational links, Technical report, National Bureau of Economic Research.

Enkel, E. & Gassmann, O. (2010), 'Creative imitation: exploring the case of cross-industry innovation.', *R&D Management* **40**(3), 256–270.

Fagerberg, J., Mowery, D. & Nelson, R., eds (2004), *Oxford Handbook of Innovation*, Oxford University Press, Oxford.

Felix, B. (2006), 'High tech industries and knowledge based services', *Statistics in Focus* .

Franke, N., Gruber, M., Harhoff, D. & Henkel, J. (2008), 'Venture Capitalists' Evaluations of Start-up Teams: Trade-offs, Knock-out Criteria, and the Impact of VC Experience', *Entrepreneurship Theory and Practice* **32**(3), 459–483.

Granovetter, M. (1993), 'The nature of economic relationships', *Explorations in economic sociology* pp. 3–41.

Hackman, J. R. (2002), *Leading teams: Setting the stage for great performances*, Harvard Business Press.

Hart, M., Stevenson, H. & Dial, J. (1995), 'Entrepreneurship: a definition revisited', *Frontiers of Entrepreneurship Research* **15**.

Hisrich, R. & Brush, C. (1986), *The woman entrepreneur: Starting, financing, and managing a successful new business*, Lexington books Lexington, MA.

Knight, F. (1921), *Risk, uncertainty and profit*, Houghton Mifflin.

Knox, W. (2004), 'Why you need a website'. [Last accessed September 2013].
URL: *http://www.entrepreneur.com/article/65204*

Lawton Smith, H. (2007), 'Universities, innovation, and territorial development: a review of the evidence', *Environment and Planning C: Government and Policy* **25**(1), 98–114.

Mohammed, R. (2011), 'Companies must learn to brag'. [Last accessed September 2013].
URL: *http://blogs.hbr.org/cs/2011/02/why_companies_need_to_learn_to.html*

Schumpeter, J. (1934), *The theory of economic development: an inquiry into profits, capital, credit, interest, and the business cycle*, Harvard U. P.

The Economist (2007), *Guide to economic indicators*, Bloomberg Press.

Timmons, J. (1999), *New venture creation: Entrepreneurship for the 21st century*, 5 edn, Irwin Homewood, Boston.

Unioncamere (2013), 'Giovani, imprese e lavoro'.

Volkmann, C., Tokarski, K. & Grünhagen, M. (2010), *Entrepreneurship in a European Perspective: Concepts for the Creation and Growth of New Ventures*, Gabler Verlag.

von Tunzelmann, G. & Acha, V. (2004), *Innovation in 'low tech' industries*, in Fagerberg, Mowery & Nelson (2004).

Wong, R. (1990), 'Understanding cross-national variation in occupational mobility', *American Sociological Review* pp. 560–573.

World Bank (2013), 'World development indicators database'. [Last accessed January 2013].
URL: *http://databank.worldbank.org/data/home.aspx*

World Health Organisation (2008), 'Safer Water, Better Health: Costs, benefits, and sustainability of interventions to protect and promote health'.
URL: *http://whqlibdoc.who.int/publications/2008/9789241596435_eng.pdf*