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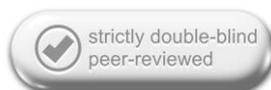


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## DE-RISKING VC INVESTING FOR OUTSTANDING ROI: AN INTERDISCIPLINARY APPROACH TOWARD THE INTEGRATION OF PEOPLE, PLANET AND PROFIT

Mariana Bozesan, Ph.D., Dipl.-Inform. (M.S.)

Founder & General Manager, AQAL Capital, Munich, Co-Founder & President, AQAL Investing, Munich, Senior Research Fellow, Humboldt-Viadrina School of Governance, Berlin, Germany

**Abstract:** *This paper makes the case for Integral Investing as a sustainable model for early stage investing. It argues that more sustainable de-risking tools could shift mainstream VC investing toward delivering higher financial returns and integral sustainability. It introduces the Theta Model as a de-risking process that integrates financial criteria with Environmental, Social, and Governance criteria, but also with behavioral, cultural, and individual assessment metrics. First, traditional Venture Capital practice and performance are compared with current developments toward more sustainable investing practices including impact investing. Then, the Theta Model is introduced as an evolutionary-based investment model rooted in Wilber's Integral Theory. The paper shows how the model has been successfully applied in integral due diligence and what were the causes for its outstanding ROI. The paper closes by sharing the lessons learned from positive and negative investment examples and by offering a discussion on how all stakeholders from entrepreneurs to investors could benefit from such integral sustainability metrics in the future.*

**Keywords:** *Sustainable Finance, Sustainable and Responsible Investing, Integral Investing, Impact Investing, Integral Sustainability, Theta Model, AQAL, Ken Wilber.*

### Introduction

In the 27<sup>th</sup> issue of the *Economic Bulletin* (Fichtner, & Fratzscher, & Gorning, 2014) of the German Institute for Economic Research (DIW), the authors argued that without major investments Europe is in real danger of falling into an economic stagnation similar to that of Japan in the 1990s. Such stagnation would be marked by greater “unemployment, declining incomes, decelerating potential growth, and deflation” (p. 635). The current unemployment rates in Greece with 27.2 percent, Spain with 24.5 percent, Italy with 12.3 percent, and even France with 10.2 percent attest to the already occurring stagnation (Eurostat Unemployment Rate, 2014, July 31). Fichtner et al. (2014) maintained furthermore that most reforms implemented thus far at national and European level have failed to impact economic development in a positive manner and four major crises are exacerbating each other. These are (1) An excessive national, corporate, and private *debt crisis*; (2) A *banking crisis* with an ongoing flawed banking system that prevents businesses and governments from getting access to affordable capital; (3) An *economic crisis* with a lack of structural reforms and an insufficient institutional framework at both national and European level; and (4) A *trust crisis* with a “persisting climate of distrust in the stability of economic development” (p. 635). The authors consider current reform efforts not sufficient to address these crises because in their view “Europe’s biggest economic weaknesses is a lack of private investment and that a European investment agenda is vital in order to generate the impetus required to push the European economy towards a

*sustainable recovery*” (p. 636). In the light of the sinking investment gap since 1999 (Table 1), Baldi, G., & Fichtner, F., & Michelsen, C., & Rieth, M., (2014, July 2) argue furthermore, “European economic policy should focus not on higher public spending, but on increasing private investment as well as creating markets that function properly” (p. 636). According to their research, “current investment in the Eurozone remains markedly below the level corresponding to macroeconomic conditions. When measured against this baseline, there was an underinvestment of around two percent on average in relation to gross domestic product between 2010 and 2012” (p. 651).

Table 1: Average Investment Gaps between 1999 and 2012 as a Percentage of Individual country’s GDP (Baldi et al., 2014, July 2).

**Durchschnittliche Investitionslücken**  
In Prozent des Bruttoinlandsprodukts

	1999 bis 2012	1999 bis 2007	2010 bis 2012
<b>Euroraum-18</b>	0,5	-0,1	2,0
Deutschland	2,9	2,5	3,7
Niederlande	2,6	1,9	4,8
Finnland	1,5	1,5	2,0
Belgien <sup>1</sup>	-0,8	-0,5	-0,7
Frankreich	0,0	0,3	-0,3
Österreich	-0,5	-1,0	0,6
Italien	-0,9	-1,4	0,5
Griechenland <sup>2</sup>	-1,5	-5,0	3,0
Portugal	-0,8	-2,7	4,1
Spanien <sup>3</sup>	-4,3	-6,2	1,1
Irland	-0,1	-3,6	9,4
USA <sup>4</sup>	-1,2	-2,3	1,9
Japan	0,1	-0,6	2,4

<sup>1</sup> Berechnungen auf der Datengrundlage 2002 bis 2012.

<sup>2</sup> Berechnungen auf der Datengrundlage 2005 bis 2012.

<sup>3</sup> Berechnungen auf der Datengrundlage 2000 bis 2012.

<sup>4</sup> Berechnungen auf der Datengrundlage 1999 bis 2011.

Quelle: Berechnungen des DIW Berlin.

To address the investment gap, Fichtner et al. (2014) recommend (1) an efficient competitive landscape that becomes attractive for private investment capital; (2) an investment friendly tax policy; and (3) a three digits Billion Euros EU-Investment Fund that would complement the current European Investment Fund (EIF), which is dedicated to Venture Capital and is rather moderate (p. 633-634). While the authors refer to the overall decreasing investment landscape including infrastructure, the same is true for seed and early stage investing. In the United States, “*the activity level of the US venture capital industry [in 2013] is roughly half of what it was at the 2000-era peak. For example, in 2000, 1050 firms each invested \$5 million or more during the year. In 2013, the count was roughly half that at 548.*” (Thomson Reuters, 2014, p. 9) Within the European Union, we can witness a similar downward trend (*Figure 1*).

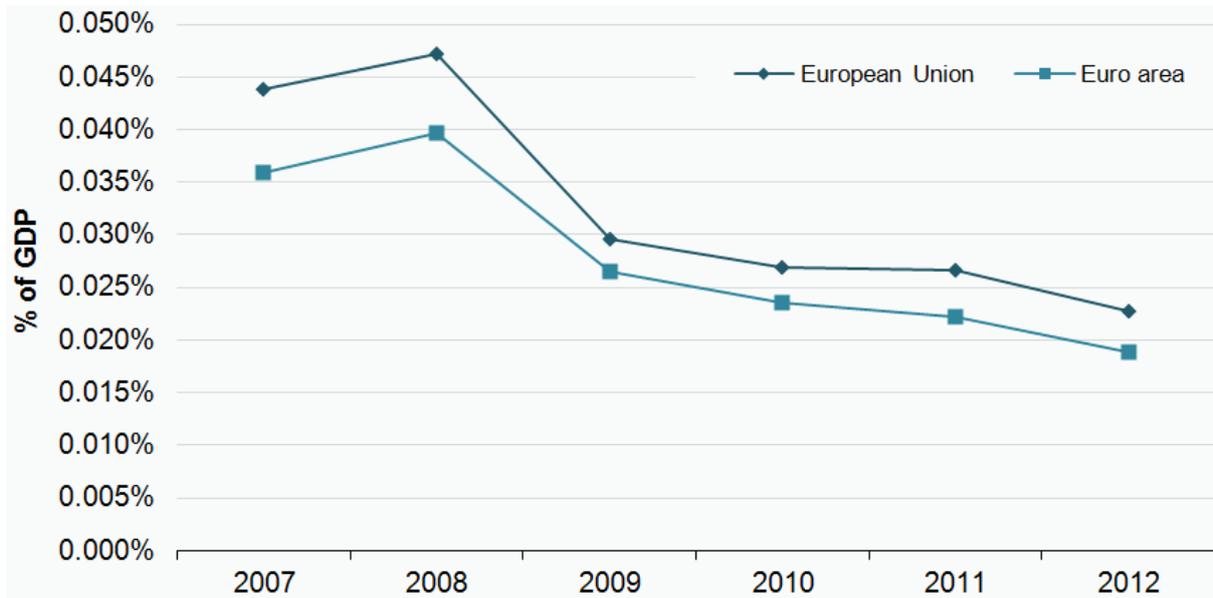


Figure 1: Total Venture Capital Investment in Percentage of GDP within the European Union and the EURO Area (European Commission, n. d.)

The aggregate data is representing individual country performance along with “relative weakening of the UK at 0.013% of GDP (down from 0.028% in 2011), Denmark (0.01% against 0.029% in 2011) and Sweden (0.029%, down from 0.031% in 2011)” is shown in Figure 2. This trend can be seen also in more stable economies like Germany, which shows similar declines from 0.01% to 0.007%, but also in France that declined from 0.019% to 0.014%, Italy that decreased from 0.002% to 0.001%, as well as Spain with a weakening from 0.007% to 0.004%” (European Commission, n. d.).

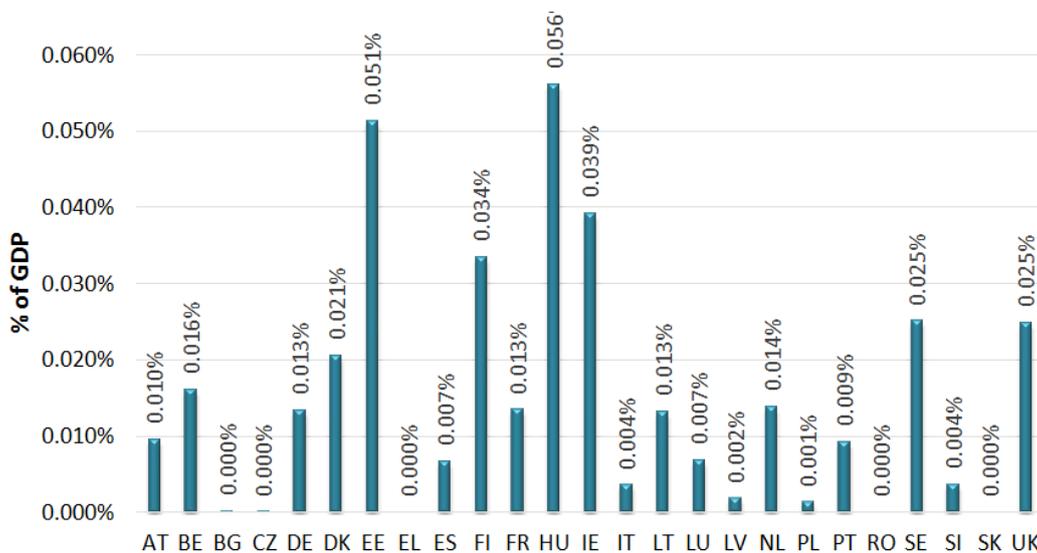


Figure 2: Venture Capital Investments in Seed and Start-up companies as a Percentage of GDP in 2012 (European Commission, n. d.)

The smaller investment market, namely that of business angels, also represents a cause of concern for policymakers, which address it through government-backed venture schemes and tax breaks for angel investors in various countries. Moreover, the 2012 European Private Equity and Venture Capital Association (EVCA) data (European Commission, n. d) suggest that the later stage Venture Capital market also suffered from the systemic weaknesses and the 2013 EVCA report (2014) shows only modest increases in most areas compared with 2012 (*Figure 3*).



*Figure 3: European Investments—Market Statistics—Amount & Number of Companies (EVCA, 2014, p. 29).*

Despite the economic downturn of the past decade, European Small and Medium Enterprises (SMEs) “have retained their position as the backbone of the European economy, with some 20.7 million firms accounting for more than 98 per cent of all enterprises, of which the lion’s share (92.2 per cent) are firms with fewer than ten employees.” (Wymenga, & Spanikova, & Barker, & Konings, & Canton, 2012, p. 9). Yet, although our future depends upon it, the funding that could secure sustained innovation and creativity is either diminishing or growing too slowly to have a significant impact. In the light of the financial, economic, environmental, geo-political radicalization, inequality, and other crises of our time this investor behavior is understandable, yet the obvious question remains: How can the gap between the demand side and the availability of capital be closed? The answer is multifaceted and just as complex as the problem. However, trust is an important key to closing this gap. This paper shows how our own family office closed this gap in early stage investing, as an asset class, since 1995.

## How We Handled the Trust Issue: Confessions of an Investor

We are part of the post-post-modern generation, that seeks to integrate financial sustainability with the ideals of the so called “cultural creatives,” which in the year 2000 represented between 25 and 30 percent of the Western population (Ray & Anderson, 2000). That means the integration of sound financial, economic, environmental, governance criteria with geo-political sustainability for the benefit of all. We perform this integration through our business and investment activities as well as through our philanthropic and venture philanthropic activities. Unfortunately, neither the traditional philanthropic, economics, finance, investing models in general nor the Venture Capital models in particular gave us the necessary framework to invest with both our values as well as with our money. As discussed in Bozesan (2013a, 2013b), traditional investment systems are outdated and missing

important aspects of life just as much as existing philanthropic models do. Having been part of the human potential movement for decades, we knew that trust toward others begins by trusting oneself. We also knew, that more trust or a feeling of security couldn't come from higher profits at the expense of people or the planet. We knew that they could only come from our heart and soul, and from what we were willing to give to the world rather than want to receive from it. Hence, we looked for an integration vehicle for all our value systems, which Plato (1961/1938) called the *True*, the *Good*, and the *Beautiful*—or Science, Morals, and Arts. We felt the need to *self-actualize* (Maslow, 1999) through an integration of all our activities, not just the financial, the business ones, or the philanthropic ones. We did not want to make money at the expense of other people or the environment. We did not want to make money during the day within a for-profit-only-oriented context and spend the evenings or the weekends at fundraising events donating to various causes to fix social injustice and/or environmental degradation. We wanted to prevent all of that from happening and saw business as a unique vehicle to pursue that goal. We began investing in and building businesses that were sustainable in all areas financially, socially, ethically, and environmentally. Our investment motto became the six Ps: the *Parity of People, Planet, Profit*, all of which we wanted to integrate with our own *Passion* for life and in line with our ultimate life's *Purpose*. In the late 1990s, we discovered the ideal framework for our six Ps, namely, Ken Wilber's (2000) integral theory that is based on Plato's (1961/1938) work (Figure 4).

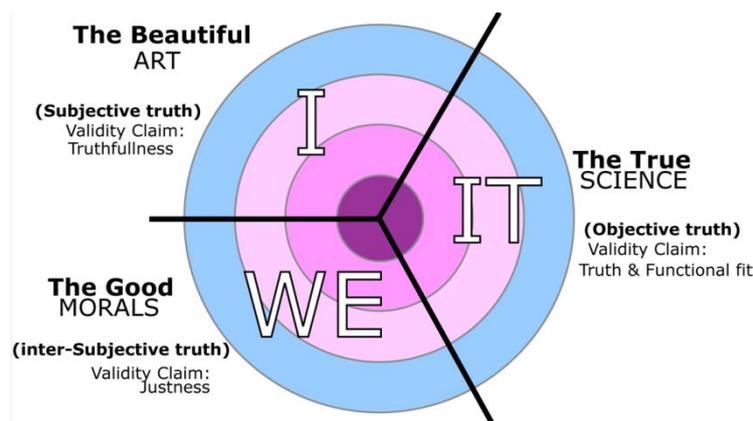


Figure 4: The Value Spheres of Humanity, the Big Three. Derived from Wilber's (2000a, p.64) Integral Theory.

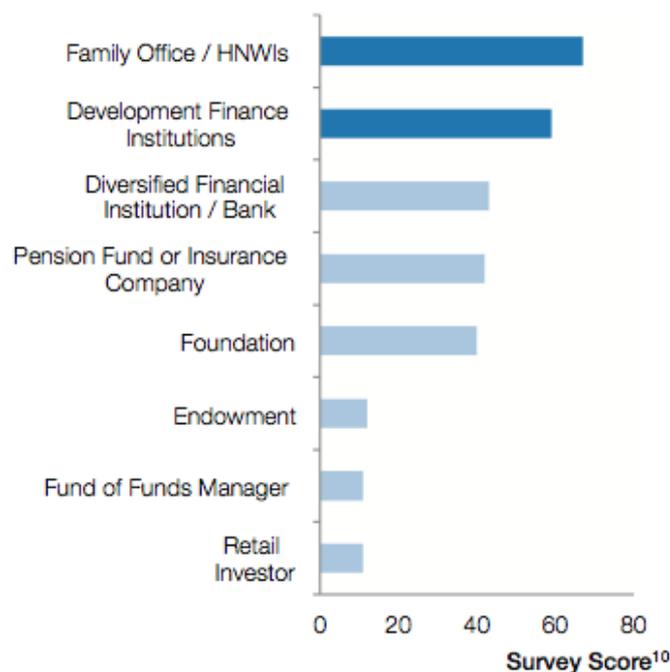
Soon, we found out that the Integral Model (Wilber, 2000a) is based not only on Plato's (1961/1938) irreducible value spheres, it also includes Kant's (1781/1793) *Big Three* critiques; the *Critique of Pure Reason* (the True, "IT" or objective rationality), *Critique of Practical Reason* (the Good, "WE," or morals), and *Critique of Judgment* (Beauty, "I," or subjective reality). And, it also rooted in Habermas' (1992) indivisible three Worlds, the objective, the subjective, and the cultural. We were thrilled about the simplicity, comprehensiveness, and elegance of the Integral Framework and developed our own investing model based on it. We call it the Theta Model and have successfully applied it in all our investments since the turn of this century. In this paper, we will briefly introduce it and show how we apply it in early stage investing to de-risk our investments and to create successful businesses. The Theta Mode has (1) contributed to significantly reduce the risk of our early stage investments over the past 20 years; (2) supported our single family office in achieving a constant *multiple* of 6.8 on average over the past twenty years; and (3) helped us on our self-actualizing journey by providing an integration vehicle between our investment activities and our philanthropic endeavor.

## **There is Reason for Hope: Trends in Investing, Banking, and Finance**

Despite many irritating developments, some of which we outlined in the introduction of this paper, we are not alone with our approach and there is much reason for hope. Before presenting the Theta Model, we would like to set the context in which current transformative developments in the industry are taking place through fellow investors, all of which give reason for hope. The hope comes from a promising and ever growing number of investors who are currently changing the investment paradigm through various initiatives and activities that try to bring back trust in our economy, financial systems, the environment, and geo-political systems by showing various paths toward “integral sustainability” (Brown, 2007, p. 1; Esbjörn-Hagens & Zimmermann, 2009, p. 245). One such initiative is the Natural Capital Declaration (The Natural Capital Declaration, n. d.) emitted by 37 banks, investment funds, and insurance companies, which aimed at integrating natural capital criteria (soil, air, water, flora, and fauna) in their products and services. Another is the Sustainable Stock Exchanges Initiative (Panwar & Blinch, 2012), a commitment made during the past Earth Summit in Rio de Janeiro in 2012 (Rio+20, n.d.) by five major stock exchanges that collectively list more than 4,600 companies, with the intention to promote sustainable investments through a global call for sustainability disclosure and performance by the companies listed on their trade floors. The *Giving Pledge*, launched on August 4th, 2010, is another initiative through which some “*of the wealthiest families and individuals in the United States [and the rest of the world] have committed to returning the majority of their wealth to charitable causes*” (Giving Pledge, 2010). The AVIVA (2011) coalition, an alliance of more than 40 like-minded private and institutional investors managing collectively approximately US \$2 trillion, is yet another alliance of investors who have agreed to promote the long-term sustainability of their investees through more reliable information and more robust measurement criteria that could drive more sustainable performance and demonstrate reliably the value of non-financial information including Social, Environmental, Governance criteria (Tomorrow’s Capital Markets, 2012). Moreover, the Global Alliance for Banking on Values provides hope through an independent network of more than 24 of the world’s leading sustainable banks. They published a report (GABV, 2012), which assessed the performance of banks over ten years from 2002 to 2011 and demonstrated how they are (a) eliminating the myth about lower returns through sustainability, (b) showing that sustainable banks have higher returns on assets than regular banks, (c) indicating significantly higher levels of growth in loans and deposits than traditional banks, (d) exhibiting higher and better quality capital inflows; and (e) revealing that sustainable banks are both investing more successfully in a greener and fairer society while having more robust and resilient business models than traditional banks. Furthermore, the International Integrated Reporting Council (IIRC) is a “*global coalition of regulators, investors, companies, standard setters, the accounting profession and NGOs . . . that share the view that communication about businesses' value creation should be the next step in the evolution of corporate reporting*” (The IIRC, 2013). And last but not least, the Global Sustainable Investments study (GSIA, 2012) showed that investments using some kind of Environmental, Social, and Governance (ESG) criteria reached an invested amount of US\$ 13.6 trillion equivalent to 21.8 % of total AuM worldwide in 2012 with (a) Negative/exclusionary screening representing US\$ 8.3 trillion AuM; (b) Norm-based screening at US\$ 3.0 trillion AuM mostly Europe (65% of known SRI AuM); (c) Positive/best-in-class screening at 1.0 trillion AuM, mostly US; (d) Assets utilizing ESG integration were at US\$ 6.2 trillion; and (e) Impact Investing being still fragmented and comparatively small at US \$89.0 billion.

### *A Word on Impact Investing*

On one hand, there is traditional investing that is profit oriented and that challenges investors to earn superior financial returns consistently. On the other hand, we can see that over the past decades an increasing number of investors began integrating their values by looking for more responsible investment opportunities that make a profit in addition to having a social and/or an environmental impact. The mindset transformation of the participating agents paved the way toward the development of Impact Investing in 1985 that is considered to be its birth year according to Robeco & Booz & Co. (2009). This trend grew slowly but surely so that Impact Investing appears to have become a separate asset class according to the same source. Similar forms of investing with comparable criteria are also known as Social Responsible Investing (SRI), Program Related Investing (PRI), Mission Related (MRI), or Triple Bottom Line Investing (TBLI). Impact Investing appears to be rather promising because it is driven by the investors' *intention* to make a difference (Bugg-Levine, & Emerson, 2011) and is measured through financial criteria alongside Environmental, Social, and Governance (ESG) criteria (Freireich & Fulton, 2009; Robeco & Booz & Co., 2009). Unfortunately, according to Randall Kempner, Executive Director, of Aspen Network of Development Entrepreneurs, Aspen Institute “*Impact Investing is currently growing linearly. In order for it to grow exponentially, we need to find a way to incorporate mainstream investors into the mix*” (Bryce, Drexler, & Noble, 2013). Bozesan (2010, 2013a, 2013b) shared research that demystifies some of the drivers behind this development, the most important of which is consciousness evolution. *Figure 5* supports these findings and shows who are the main players in this industry whereby family offices and high net-worth individuals are paving the way.



*Figure 5: Source of Funds for Impact Investment Fund Managers in 2012 (Bryce, Drexler, & Noble, 2013).*

In this paper, we focus on how we are integrating these criteria in our own investing activities. However, in order for the industry to grow exponentially, we believe that Impact Investing must consolidate and become mainstream. It must become more aligned and develop better-integrated and more easily measurable criteria for mainstream investing for both in the West as well as in developing countries (Bryce, Drexler, & Noble, 2013). In our view, what impedes Impact Investing

from becoming mainstream are current incentive structures. These are predominantly influenced by short-term financial performance, market indices, benchmarks, market share, personal security, success, and reputation, as well as regulatory compliance, few of which contain long-term sustainability aspects that are currently tagged as externalities (Tomorrow's Capital Markets, 2012). New compensation structures should aim at discouraging unsustainable behaviors in the participating agents that in the past lead to goal misalignment, cultures of fear, growing self-interest, communication gaps, and high-levels of remuneration that were linked to short-term profits.

## What Could Build More Trust and De-risk Investments

In this chapter, we will focus on what helped us build more trust in our decisions and supported us in integrating our values with our investment activities. We will begin by highlighting a few significant de-risking aspects that we gained from applying Wilber's Integral Model (2000), which will be explained in more detail later in the text.

The first factor is the *theory of evolution*. To get a better understanding of the role of evolution in investing, let us take a closer look at a well-known model with which many business people have become familiar, namely Maslow's (Maslow & Stephens & Heil, 1998) pyramid of needs. According to Maslow (1998), humans apparently evolve during their lifetime along his pyramid, whether or not they are able to fulfill their needs. The model contains consecutive stages of development starting with (a) survival/physiological needs for air food water, sex, sleep; to (b) safety/security needs for health and property needs; to (c) social needs for love to (d) ego/self-esteem needs for confidence and achievement; (e) to self-actualization needs for high morals and creativity with lack of prejudice and acceptance of facts; to (f) self-transcendence needs (Maslow et al., 1998, Maslow, 1999). As individuals grow along these stages of development from *selfish/preconventional* stages, via *care/conventional* stages, to *universal care/postconventional* stages of moral development (Gilligan, 1993), we apparently begin to take a more global view on life and adapt higher moral standards (Commons & Armon & Richards (Eds.), 1984; Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gardner, 1993, 2004; Gebser, 1984; Gilligan, 1993; Cook-Greuter, 2004, 2005, 2008; Kohlberg & Ryncarz, 1990; Wilber, 2000a, 2000b). Therefore, at later stages of development, individuals appear to be in a much better position to apply Kant's categorical imperative (Kant 1949/1993) and to make more compassionate decisions that come from a higher ethical standard, so badly needed in the current crises (Baier, 1994/1996; Blackburn, 2001; Dalai Lama, 1999). Furthermore, from a collective perspective, the evolution of social systems and/or cultural structures can be categorized either (a) according to the infrastructural and techno-economic base of the society, which includes evolutionary periods such as the foraging, horticultural, agrarian, industrial, informational stages of development (Beck & Cowan, 1996); or (b) according to the predominant worldview of the culture such as archaic, magic, mythic, scientific-rational, pluralistic, integral (Gebser, 1949/1984) or simply pre-modern, modern and postmodern. The cultural worldviews are intimately correlated with the social techno-economic structures because they occurred together and are influencing each other. They are different facets of the same coin. Therefore, understanding and acknowledging the fact that the multitude of societies and cultures on earth are at different levels of evolution and apparently at different levels of consciousness, is key within the context of this paper. This understanding, has helped our family office invest much more sustainably and compassionately by meeting people at their own levels of consciousness and not our own. It helped us acknowledge, honor, and celebrate the fact that humanity, as a whole is completely heterogeneous.

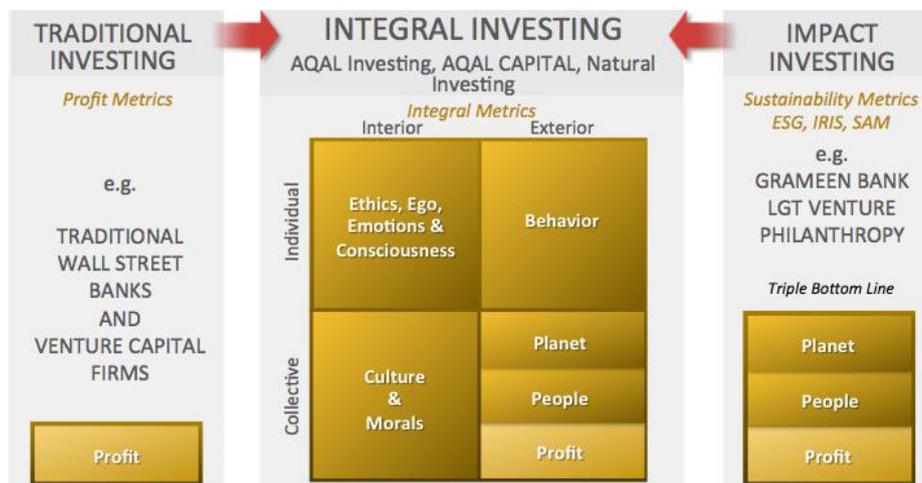
The same effect had the *inclusion of emotional intelligence* (Goleman, 1995) and *other human intelligences* (Gardner, 1993) in our due diligence processes. The scientific community, from economics, finance, behavioral finance, to neuroscience and psychology (Camerer & Loewenstein, 2004; Yazdipour, 2011) appears to be united in the fact that behavior is influenced by our psyche

“in-here” rather than “out there.” These various dimensions of consciousness are permanently co-arising and are deeply influencing our decisions whether we consider them or not (Beauregard & O’Leary, 2007; Kahneman & Tversky, 1982; Newberg & Lee, 2005; McCraty, 2001, Wilber, 2000b).

The desired transformations toward “*integral sustainability*” (Brown, 2007) occurs within a very complex context, which includes what is obvious to the eye from the outside, namely the environmental, financial, economic, and social structures, as well as the collective and individual behavior. But it also includes what cannot be seen from the outside, namely the *individual interiors*—emotions, psychology, and cognition—of participating agents, both individual as well as collective levels. What Krugman (2012) called “obsolete doctrines that clutter the minds of men” (p. 191) are actually socio-political and inter-objective contexts, rules, systems, and regulations. They contain also cultural inter-subjective and deeply ingrained norms, such as ethics and morals that influence our individual and collective behaviors (Baier 1994/1996; Gilligan, 1993; Kohlberg & Ryncarz, 1990). Adding all these additional lenses to the due diligence process in investing can be cumbersome, intensive, and expensive. However, they also add a higher level of granularity to the process and can help build more trust both in oneself but also in the investees and in the relationship between the two.

## A Model for Integration

As investors, we consider ourselves to be the custodians of financial capital, natural capital, but also human capital—including interior values such as joy and happiness. *Figure 6* depicts how we see the integration occur using Wilber’s (2000) integral theory.



*Figure 6:* Integral Investing as the Integration between Traditional Investing and Impact Investing (Bozesan, 2011a, 2011b, 2012, 2013a, 2013b).

We are deploying capital for sustainable and optimal risk-adjusted financial return, coupled with long-term, premium-impact return, and take this responsibility toward future generations very seriously. To fulfill this responsibility, we combine investment criteria common in traditional investing with criteria that include Environmental, Social, Governance aspects, but also happiness and making-a-difference-in-the-world factors. We call this *Integral Investing* and define it as the application of Wilber’s Integral Framework in investing across all asset classes. We call the actors performing it *Integral Investors* (*Figure 7*).



Figure 7: Positioning of Integral Investors (Bozesan, 2013a, 2013b).

The discourse behind this integration can be found in Bozesan (2011a, 2011b, 2012, 2013a, 2013b). What will be discussed next is how the due diligence process within the Theta Model is performed.

### The Theta Model: Theoretical Foundations

Wilber’s (2000) Integral Model provided us with a post-post-modern framework that gave us hope because it enabled us to implement the desired integration of our six Ps: *People Planet, Profit, with Passion and Purpose*. It is based on the *theory of evolution* (Figure 8) and it integrates humanity’s indivisible value spheres described by Plato (1961/1938) as the True/Science, the Good/Moral, and the Beautiful/Art (Figure 4). It taught us to honor the truth in all there is, appreciate diversity in culture, and see reality as a whole, in which every exterior has an interior that influences it. In practical terms, we could see why an average investor who lives in a post-modern society such as Western Europe will, most likely, have a different view of the world and therefore another investing behavior and portfolio than an investor from an emerging economy such as the BRIC states (Brazil, Russia, India, China). Therefore, the application of Wilber’s integral model provided us with a very powerful de-risking tool. It gave us a differentiated view of our investees depending upon the vertical altitude in each quadrant (Figure 8) but also on how well the horizontal integration across the quadrants has occurred. It opened our eyes to a reality that is made of a complex web of interrelated and intra-connected *ecological* structures, *social* systems, and *cultural* determinants, all of which are subject to *evolution* from simple structures to more complex ones (Gebser, 1984; Wilber, 2000, 2000a, 2000b, 2006).



Figure 8: Wilber’s Integral Model and Evolution (Wilber, 2000a).

The upper-left quadrant in Wilber’s (2000a) model refers to the interior individual domain, the terrain of experience. It is the personal subjective area and the inner life of an individual. It “includes the entire spectrum of consciousness as it appears in any individual, from bodily sensations to mental ideal to soul and spirit” (Wilber, 2000a, pp. 62-63). Here is the home of our individual interiority and contains several lines of interior development including cognition, aesthetic, morals, emotions, self, and ego development. According to leading developmental psychologists such as Graves (Beck & Cowan, 1998), Gilligan (1982/1993), Cook-Greuter (2005), Kegan (1982), Kohlberg & Ryncarz (1990), Loevinger (1977), Maslow (1999), and Wilber (2000a), we are subject to an evolutionary process along various lines of development (morals, values, needs, cognition, self-identity, etc.) represented in Figure 9 (Wilber, 2006).

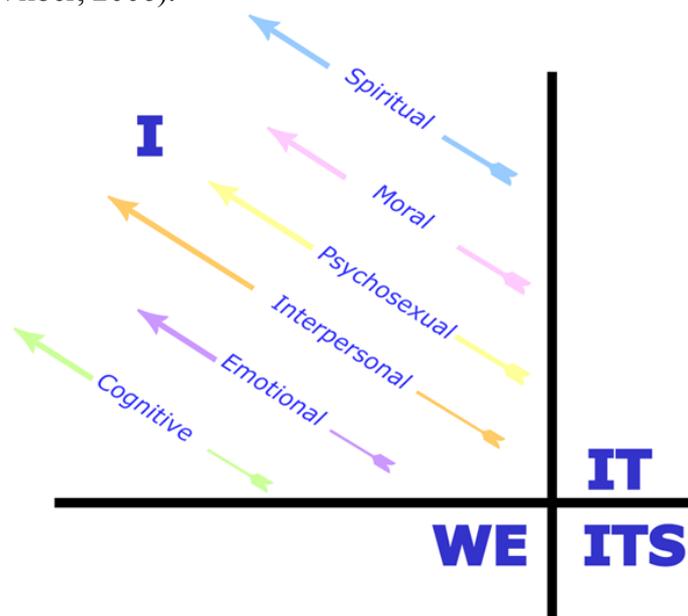


Figure 9: The Spectrum of Consciousness with Six Major Developmental Lines Adapted from Wilber (2006).

Especially after the 2008 financial disaster, the call for higher ethics increased significantly. Yet, humans do not grow at will and not over night. Those of us who have ever tried to lose weight, stop smoking, or change any unwanted behavior know how difficult such a process can be. Whether we acknowledge it or not, we appear to be driven by our interior dimensions (Commons & Armon & Richards (Eds.), 1984; Commons & Armon & Kohlberg & Richards & Grotzer (Eds.), 1990; Gardner, 1993, 2004; Gebser, 1984; Gilligan, 1993; Cook-Greuter, 2004, 2005, 2008; Kohlberg & Ryncarz, 1990; Wilber, 2000a, 2000b). The lower-left quadrant (*Figure 8*), the *terrain of culture*, enlarges the perspective of reality through the interpersonal subjective areas of our culture, such as beliefs, norms, justness, and goodness. Wilber (2000b) defined this quadrant as “the values, meanings, worldviews, and ethics that are shared by any group of individuals” (p. 63). The cultural context in which for instance investing, businesses, politics, science, and education occur, are at the heart of our inter-subjective, collective humanity. It gives our existence meaning, we become almost inseparable from it, because it becomes what we perceive to be our absolute reality. The reason why, within the parameters of neo-classical economics, the two *territories of felt experience* and *culture*—individual and collective interior—have apparently been excluded, is because it erroneously seemed difficult to prove in a scientific manner (Camerer & Loewenstein, 2004). This separation occurred because neither behavioral economics (Kahneman & Tversky, 1982) nor scientific psychology existed as academic disciplines at that time. As a result, the interior dimensions were dropped all together and neo-classical economics was reduced to profit and utility maximization. Based on the prevalent collective center of gravity at that time, the notion of the *self-interested homo economicus* (Aspromourgos, 1986) was born. The financial crisis of 2008 was the culmination thereof and this paper is attempting to demonstrate how this is currently changing within the field of investing.

Wilber’s (2000a) upper-right quadrant (*Figure 8*) refers to the exterior or the more objective states of being, the *terrain of behavior* also called the individual exterior/objective domain. This terrain is more easily measurable with the scientific methods available today and includes “the brain mechanisms, neurotransmitters, and organic computations that support consciousness” (Wilber, 2000b, p. 63). The objective perspective at this level permits the examination of exterior behavior and the structure of each individual phenomenon from humans to animals to insects. This is traditionally the home of natural sciences including cognitive science, mathematics, financial theory, chemistry, physics, biology, biochemistry, neurophysiology, and empiricism.

The lower-right quadrant (*Figure 8*) is the *territory of systems theory and analysis*. This quadrant is the area in which institutions, businesses, and geopolitical organizations are traditionally inter-operating in an objectively measurable and systemic way. Similar to the upper right quadrant, this is also the domain in which science has conventionally been active but from the perspective of social sciences and systemic natural sciences. This is the home of economics, business, civil and environmental engineering, ecology, astronomy, astrophysics, sociology, and other systemic and infrastructural contexts. The inter-objective perspective that can be taken at this level permits the configuration and exterior behavior analysis of collective phenomena. These include economic and financial systems, ecological and social systems, as well as legal and political systems.

From the vantage point of investing, this quadrant is the home of traditional financial and legal due diligence, as well as the Environmental, Social, and Governance Key Performance Indicators (KPIs). Yet, requesting the fulfillment of these requirements alone - such as the UN Principle for Responsible Investing (UN PRI, 2013), the Global Impact Investing Network (GIIN, 2013) Impact Reporting and Investment Standards (IRIS,) or the Global Impact Investing Rating System (GIIRS, n.d.) by B Lab, are not sufficient to ensure their application. Therefore, we will introduce below a few developmental measurement tools that have been shown to successfully (Pfaffenberger, 2006) de-risk investments and which we apply within our Theta Model and De-risking Process. Next, we will elucidate this model in more detail.

## The Theta Model: Tools, Processes, and Measurements

### *A Mandate for Integral Sustainability*

The investment philosophy of our family office mandates that rigorous financial measurement criteria be intimately correlated with environmental, social cultural, (ESG) criteria, as well as behavioral, ethics, morals, and higher human values. We call our investment mandate Integral Investing (*Figure 6*) and summarize our requirements as the six Ps, the Parity of People Planet, Profit, with Passion and Purpose, discussed earlier. Integral Investment informs us about additional aspects of reality—including interior, evolutionary, behavioral, inter-objective, and inter-subjective—that are constantly co-arising and affect us whether we are aware of them or not. It encourages us to take a broader view of reality in all our investment activities and helps us fulfill Brundtland’s (World Commission on Environment and Development, 1987/2009) request for integral sustainability, which “meets the need of the present without compromising the ability of future generations to meet their own needs” (p. 43).

### *The Theta Model Defined*

We developed the Theta Model with the intention to fulfill our mandate in a very concrete manner. The Theta Model is an integration and de-risking framework that contains tools and processes that help us bridge traditional due diligence with integral impact investment performance.

Figure 10 shows how we extend traditional financial and legal due diligence to include Environmental, Social, and Governance criteria, but also evolutionary metrics that help us assess the team culture as well as individual team members in our screening procedure with a high degree of sophistication and accuracy.

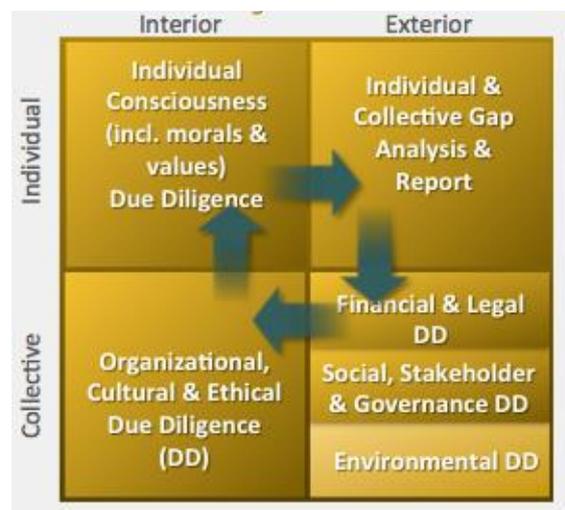


Figure 10: The Theta Model and Process (Bozesan, 2013a, 2013b).

### *The Theta Model: Toolbox and Metrics*

The Theta Model helped us refine our de-risking tools and significantly enhance our investment measurements. Through the usage of this integral investment lens we identified a whole host of tools with which we developed a comprehensive de-risking toolbox (*Figure 11*).



Figure 11: The Theta Model: Toolbox and Metrics (Bozesan, 2013a, 2014b).

As measurement criteria we use (a) the sustainable integration between traditional, profit-oriented, investing criteria (financial and legal due diligence tools); (b) impact investing measurements with their Social, Environmental, and Governance (ESG) (UN PRI, 2013) metrics; and (c) behavioral, cultural, and consciousness criteria as defined in Wilber’s (2000) integral framework. The Theta Toolbox includes the four Wilberian (2000) quadrants, ESG metrics, instruments for assessing the vertical altitude (*Figure 8*) in each quadrant, as well as even more important proficiencies for the horizontal integration of all quadrants. By adding multiple worldviews and perspectives we significantly reduced our investment risk also within the context of our philanthropic or venture philanthropic endeavors. Its application helped us achieve remarkable financial returns alongside sustainable integral impacts since the turn of the century.

*Value Chain Creation in Early Stage Investing: Creating Integrally Sustainable and Responsible Companies from the Very Beginning*

The Theta Model is an accelerator for screening and decision-making but also a vehicle for the speedy creation of successful and sustainable companies from the very beginning.

*Figure 12* shows the process through which we apply the model along the value chain in early stage investing from deal sourcing, over screening and due diligence, investment execution, company monitoring, and finally exit.



Figure 12: Value Chain Creation: The Application of the Theta Model in Early Stage Investing (Bozesan, 2013a).

Our financial and legal due diligence is identical with traditional methods undertaken in traditional venture capital firms. Therefore, we will spend some time elaborating next on the application of the Environmental, Social, and Governance (ESG) criteria as well as on our implementation of the due diligence process as it applies to the other three Wilberian (2006) quadrants. These are the inter-subjective quadrant (cultural), the individual interior quadrant (self and consciousness), and the individual behavioral quadrant.

### *Environmental, Social, and Governance Due Diligence*

In our Theta Model, the Environmental, Social, and Governance (ESG) criteria are not considered externalities but are internalized and become concrete measurement criteria for our screening and due diligence process. Our family office was among the first that subscribed to the Principles for Responsible Investing (UN PRI, 2013), which were launched on April 2006 by the UN Secretary General at the NY Stock Exchange. Hence, we agreed to fulfill the following commitments: (a) We will incorporate Environmental, Social, and Governance (ESG) issues into investment analysis and decision-making processes; (b) We will be active owners and incorporate ESG issues into our ownership policies and practices; (c) We will seek appropriate disclosure on ESG issues by the entities in which we invest; (d) We will promote acceptance and implementation of the Principles within the investment industry; (e) We will work together to enhance our effectiveness in implementing the Principles; and (f) We will each report on our activities and progress towards implementing the Principles. Some key ESG criteria are summarized in Figure 13.

Environmental Criteria	Social Criteria	Governance Criteria
<ul style="list-style-type: none"> <li>• Climate change, water scarcity</li> <li>• Local environmental pollution and waste management</li> <li>• New regulations beyond environmental product liability</li> <li>• New markets for environmentally-friendly products and services</li> </ul>	<ul style="list-style-type: none"> <li>• Workplace health and safety</li> <li>• Knowledge and human capital management</li> <li>• Labor and human rights issues within companies and their supply chains</li> <li>• Government and community relations</li> </ul>	<ul style="list-style-type: none"> <li>• Board structure and accountability</li> <li>• Accounting and disclosure practices, transparency</li> <li>• Executive compensation</li> <li>• Management of corruption and bribery issues</li> </ul>

Figure 13: Overall Description of Environmental, Social, and Governance criteria.

In our de-risking approach, we include these metrics and are also active in various organizations to help standardize them for general adoption. These include the UN PRI (2013), the IIRC (2013), the Impact Reporting and Investment Standards (IRIS) of the Global Impact Investing Network (GIIN, 2013), the G8 Social Impact Investment Task Force, and the Club of Rome (2013) to name a few. It is important to us to help new start-up companies become integrally sustainable and we use these various criteria to help them do so. We find that the majority of entrepreneurs is truly concerned with sustainability issues and welcomes our inquiries in this direction. They prefer a stakeholder to a shareholder approach when setting up their companies and have rather clear ideas about progressive governance models, which they want to implement in their organizations. They care deeply about sustainability issues such as stakeholder management, ESG strategy and measurement, avoidance of green washing and social washing, as well as reporting tools and standards. Unfortunately, we found that most standardization efforts focus on public companies and there are virtually none or very few tools available for start-up companies. There is a lot of room for improvement in this direction. In our family office we rely on the support of organizations such as PriceWaterhouse Coopers, GIIN, and/or GIIRS/Bcorp in providing start-up companies with the necessary criteria for integral sustainability. We value these tools not only from a short-term de-risking perspective but also from a long-term sustainability perspective.

*De-Risking the Team and Individual Leaders: Cultural, Individual, and Behavioral Assessment using the Theta Model*

Any real estate agent would agree that “location, location, and location” are the three most important attributes of a good real estate investment. In a similar way, any experienced high-risk/VC investor would agree that investing in a high-quality management is arguably the litmus test not only for the success of the start-up, but more importantly for the success of the partnership between investor, entrepreneurs, community, suppliers, and other stakeholders. 80 percent of the risk can be addressed by performing an integral due diligence on the team (Figure 14).



Figure 14: Theta Model: Start-up Risks

Most due diligence tools used by investors to assess individuals and the team of a start-up are frequently limited to assessing exterior factors such as the ones described by social scientists as (a) mental characteristics such as “the need for achievement, need for power, belief that one is control of one’s own destiny, and risk preferences”; (b) behavioral characteristics that include “determination, resourcefulness, a sense of urgency to get things done, and a realistic approach to facts”; (c) physical characteristics such as “energy level, a better than average ability to speak and communicate, and mental stamina”; and (d) moral characteristics such as “honesty, partnership orientation, and a desire for fair play” (Gladstone & Gladstone, 2004). The traditional VC assessment process includes individual and team interviews, background checks, personal history assessments, and observing of body language during personal interactions. Some VCs “resort to personality or psychology tests, but this is not frequently done” (Wong, 2005). This is unfortunate for both the start-up and the investor side. Given the fact that both parties are actually looking for a mutually fruitful relationship, the results of these tests would help cement the potential relationship and lead it to success. According to research by renowned Harvard scholar Susanne Cook-Greuter, (2004) only 10 to 20 percent of adults demonstrate high ethics and high levels of ego development. Identifying those in a start-up setting would help ensure that what is being promised on the outside is authentically true on the inside. According to CEO-oriented research (Rooke & Torbert, 1998; 2005, April ; Torbert, & Livne-Tarandach, & Herdman-Barker, & Nicolaidis, & McCallum, 2008, August 9), performed on 10 organizations over four years by Action Inquiry experts Rooke and Torbert (2005, April), there appears to be a direct correlation between the levels of consciousness of the CEO and the survival of the business. In this research, all five organizations lead by CEOs rated at high ethics levels were transformed into successful businesses; financially and otherwise. Only two of the organizations that were lead by CEOs assessed at conventional levels of consciousness were still around while the others went out of business. Additional research performed on financial service advisors at American Express by leading Stanford researcher and forgiveness expert, Dr. Luskin, (Luskin et al., 2009) “demonstrated a 50-400 percent improvement in productivity over their peers, which led to an average increase in sales of 25 percent. This was coupled with a marked decrease in stress and a large improvement in life satisfaction.” Moreover, “seminal research into the dynamics of high performing teams reveals the secrets to extraordinary results are what we have intuitively known all along: positivity, inquiry, and a focus on others. High performing teams exhibit a ratio of positive interactions (support, encouragement, appreciation) to negative interactions (disapproval, sarcasm,

cynicism) of between 3:1 and 11:1. Such teams also balance advocacy with inquiry and balance a focus on self and others. In layman's terms, they care about one another and work well together. These behaviors enable the teams to operate in a dynamic flow-like state a bit like a championship basketball team. Medium and low performing teams exhibit lower ratios of positive to negative interactions, favor advocacy over inquiry, and participants focus more on themselves than on each other." (Brown, 2014). Having this type of data on the entrepreneurs in whom one invested could significantly increase the likelihood of success and reduce the investment risk related to the team. We perform such assessments using various tools (*Figure 11*) developed at reputable universities such as Stanford, Harvard, and MIT. In *Figure 9* we shared the vertical lines of development along which appropriate team and individual assessments have been performed. However, there are innumerable other tools that can be used within this context.

### *Lessons Learned*

We have evaluated thousands of deals and invested significant amounts of money in start-up companies over the past two decades. We feel deeply responsible for the integral impact of our portfolio companies due to our intention to create integrally sustainable companies from the very beginning. The Theta Model helps us do that in a much more efficient and effective way. As a result, our portfolio companies (1) solve real customer problems; (2) implement innovative business ideas; (2) have a specific sector focus (transformative technology, climate change, lifestyle, cultural innovation, megatrends); (3) have the ability to massively scale into a worldwide marketplace; (4) are lead by dedicated, resilient, and integrally acting management teams; (5) are committed to integral sustainability criteria including, financial, environmental, social, and governance measurements; (6) display ethical behavior ; (7) create a corporate culture based on higher values and levels of consciousness; and (6) support transparent reporting.

### *When an Investment Failed*

When the investment failed, the reasons were mostly related to factors including the following (1) we failed to identify early enough the lack of team alignment and missing common values of the original team or the team changed and became misaligned over time; (2) the organizations were geographically and culturally located too far away from our immediate circle of influence; (3) the technology was too early and ahead of its time; (4) we neglected the importance of a regulated market; (5) the main founder(s) did not want to exit and thus, we could never retrieve our investment; (6) we were too hands-off; (7) we were diluted; (8) we invested against our intuition and gut feeling; (9) we trusted the entrepreneurs at face value, did not have proper scientific tools to assess moral and ethics, underestimated the importance of proper legal advice and paperwork thus leading to major losses; (10) alternative solutions caught up faster and came to market before ours did; (11) global times of crisis.

BioCEE is an example for a technology ahead of its time, a geographically remote organization, and a start-up company that did not grow fast enough. The company developed advanced biocatalytic reactor solutions for the production of clean fuels and chemicals based on its proprietary biocoating technology platform. The team was wonderful, integrally informed and acting, but unfortunately for us, who lived between California and Bavaria at the time, it was based in Minnesota, in the heart of USA. As fracking and other fossil fuels began filling the energy gap by providing the necessary energy sources, clean fuels such as those produced by BioCEE became way too expensive. The company's operations were recently closed although it still owns invaluable patents.

ZONARE Medical Systems, an ultrasound diagnostic imaging manufacturer, is another example of an investment in a difficult, too early technology, and a company that could not grow fast enough for several reasons, all factors that unavoidably led to significant dilution for all early investors.

Infobahn Romania, a technology transfer company, is an example of a start-up company that failed due to cultural misalignment of various international teams involved across various countries and continents.

### *When an Investment Succeeded*

When our investments worked, the Theta Model was applied in full, yet the main key to success was, of course, the team. By the team we mean the whole stakeholder team including the investors, suppliers, start-up team, and other contributors. Our common focus was the cultivation of a stakeholder culture based on trust, interdependency, integrity, transparency, caring, passion, and fun in addition to the desire to be financially and otherwise sustainable. Some of these portfolio companies went public or were sold in less than four years and became highly successful. We still receive calls from former employees telling us how much they loved being part of these organizations. In several cases, the original founders started new enterprises that became again very successful despite the economic downturn of the past decade. These organizations had not only happier employees, and higher customer stickiness, but also significantly higher return on investments than others, which did not build a culture based on higher values.

Cybernet AG, a German Internet Service Provider that went public and became the first Internet stock traded on the German stock exchange before PSINet acquired it at the end of 2002. Its visionary and progressive founders and the culture they built fulfilled all characteristics of an integrally acting team highlighted in this paper and previous publications. Furthermore, in a country like Germany it is rather easy to implement high standards with respect to Environmental, Social, and Governance (ESG) criteria. Most of these ESG criteria are mandated by law and are therefore easy for any investor to measure and for the start-up company to report.

Out of our concern for climate change, we invested also in Entelios AG, which became another success story in our portfolio. Germany's commitment to the Energiewende (energy turnaround) in the aftermath of the Fukushima disaster was an ambitious plan to shift from nuclear and fossil fuels to renewables. Feeding renewable energy sources such as wind and solar into the existing power grid is cumbersome because these energy sources are not continuous. In order to guarantee a reliable and inexpensive energy supply in the future, new solutions are required. Thus, Entelios AG became Germany's first Demand Response aggregator that was acquired in 2014 by global leader EnerNOC, only four years after being founded.

In addition to investing in high technology, biotechnology, and technology that addresses climate change, we continue to invest in other megatrends such as cultural innovation, lifestyle, and medical devices. *Penumbra* is such a medical device company that develops and manufactures innovative and minimally invasive medical devices for patients who are suffering from strokes and various neurovascular diseases. Although *Penumbra* has not exited yet, we are thrilled about the technology that addresses a huge medical need, but more so with the founder, a serial entrepreneur and founder of *Smart Therapeutics* (now *Boston Scientific*), and his team. Even if *Penumbra*, or any other of our still active portfolio companies, never returns our investment, we are proud to be part of such advances in human evolution. The Theta Model is our vehicle for self-actualization through investing, philanthropy, and venture philanthropy.

## **Summary**

In this paper we introduced the Theta Model, a very successful de-risking model used in our own family office since the turn of this century. By sharing the Theta Model, which was developed based on Wilber's (2000) integral theory, we hope to contribute to the increasing aggregation of the needed

capital to invest in our future in a sustainable fashion. We hope to contribute to increasing the trust needed to invest in our young entrepreneurs, our economies, our businesses, our financial systems, in our cultural innovation, and in the future of humanity. Much more research will have to be performed to make the Theta Model applicable outside of our own family office with the same success. However, as technological innovation will continue to grow at historical rates, this model could provide an enhanced de-risking tool toward integral sustainability. It could make sure that the available capital is appropriately de-risked to address the new problems that are prone to occur including further resource depletion, increasing pollution, massive climate change, growing inequity, and substantial social conflict. This model could provide the necessary de-risking tools and due diligence processes needed in the transition from a fossil-fueled economy toward a sustainable economy rooted in well being for all humanity. Such a transition may seem like a miracle to some people. However, we believe in the resilience of the human species and our ability to turn crises into opportunities. Ken Wilber's Integral Theory could become the new investment map for large-scale application in an integrally sustainable world.

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DE-RISKING VC INVESTING FOR OUTSTANDING ROI: AN INTERDISCIPLINARY APPROACH TOWARD THE INTEGRATION OF PEOPLE, PLANET AND PROFIT

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