Stream 1

Water

Antoine Sorange, *Head of ESG Analysis,* **Amundi Asset Management**
Marie Morice, *Director,* **Natural Capital Finance Alliance**

Moderator: Morgan Gillespy, *Head of Water,* **CDP**

NCFA Water Risk Tools

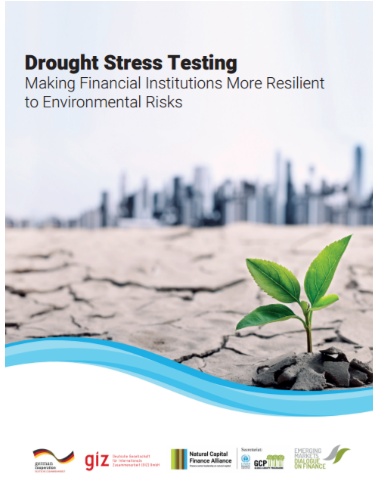
Water Risk Corporate Bonds Tool

Self-assessment tool for financial institutions to incorporate water risk in corporate bond credit risk analysis and integrate water stress into company credit analysis

Water Risk Equities Tool

Tool that enables analysts to incorporate water risks into company valuations across copper and gold mining companies

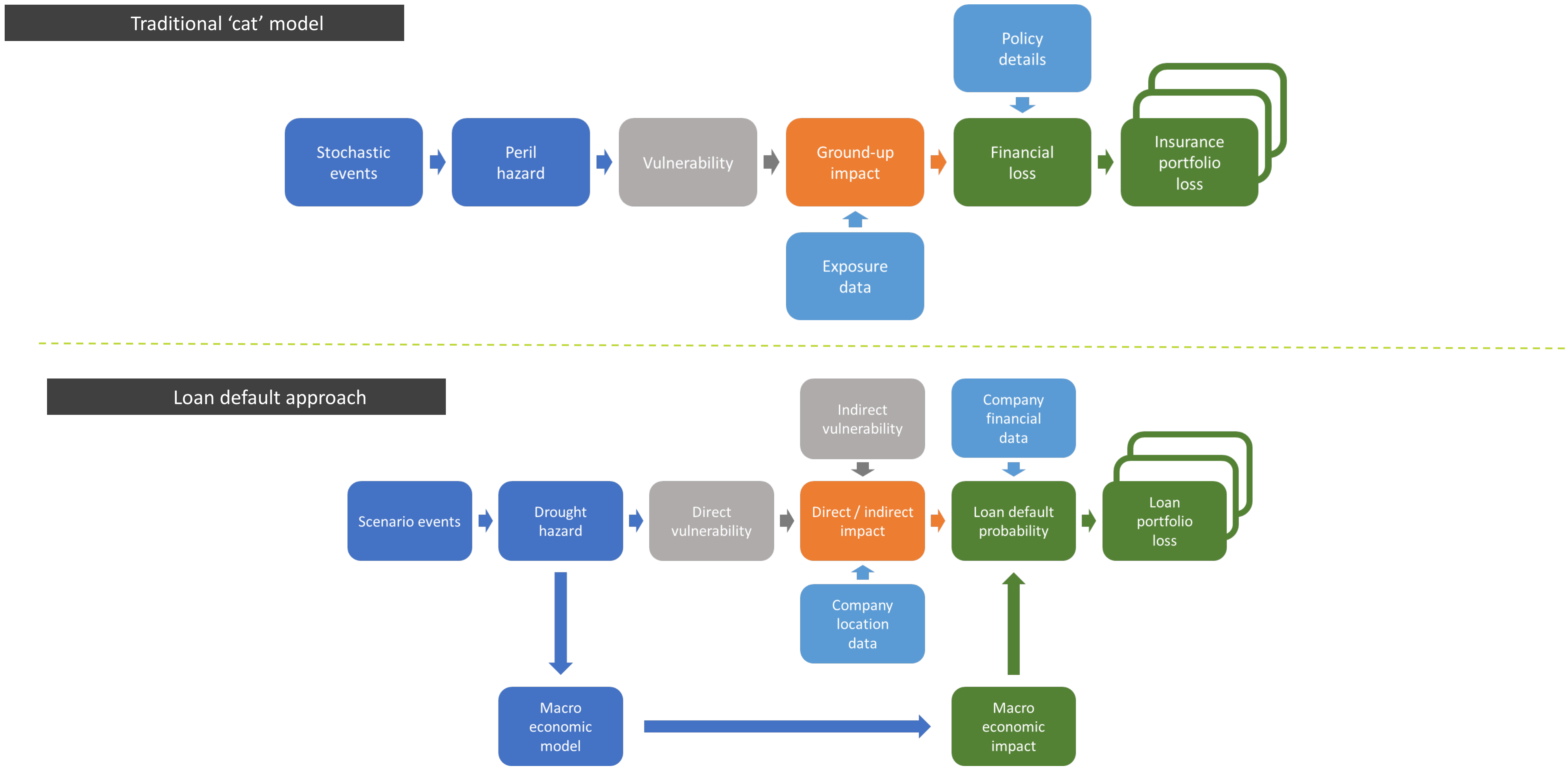
Drought Stress Testing Tool



Santander Banamex citi UBS

Itaú CAIXA ICBC FIRA BANORTE

Drought Stress Testing Model



High Level Example

Company data (sector / location / financial)	Drought Scenario hazard	Sectoral impact (direct / indirect)	Change in revenue and COGS	Loan default probability and $ loss
Food and beverage manufacturing	Severe five-year drought in West and Central United States	Reduced water supply in Chicago restricts bottling plant operations	Revenue decreases by 40% to $60MM due to decreases in productivity	Reduced revenue and greater costs increase probability of default
Production facilities in: • Chicago • Indianapolis • San Francisco	Reduced rainfall in certain regions by 90%	Power supply from hydro electric supply reduced by 80%, forcing other sources to be used	Water costs increase by 60%	In 3rd year of drought, company becomes insolvent
• $75MM loan • $100MM rev. • $30MM costs		Reduced availability of raw food products from California	Power costs increase by 40%	Loan default, and loss to FI of $75MM
			Costs increase by 30% to 40MM	

Stream 1

How labour rights issues such as trades union representation, precarious work and low pay have become a major investor concern in developed markets.

Janet Williamson, *Senior Policy Officer, Economics and Social Affairs Department,*
Trades Union Congress (TUC)
Liz Umlas, *Senior Advisor,* **UNI Global Union**

Moderator: Catherine Howarth, *Chief Executive,* **ShareAction**

Committee on Workers' Capital:
Guidelines for the Evaluation of Workers' Human Rights and Labour Standards

For more information:

http://workerscapital.org/taskforce-on-sustainability-ratings

committee on workers' capital

Labour Rights Issues: A Major Concern for Investors

RI Europe 2017

Elizabeth Umlas, UNI Global Union
Janet Williamson, Trades Union Congress

Stream 1

Human capital as a value driver

Guy Janssens, *Head of Sustainable and Responsible Investments,* **BNP Paribas Fortis**
Bertille Knuckey, *Head of Sustainable and Responsible Investment,* **Sycomore Asset Management**

Moderator: Simon Howard, *Chief Executive,* **UK Sustainable Investment and Finance Association (UKSIF)**

Sycomore Asset Management

€6.4bn
AUM

30%
SRI funds/mandates

18 fund managers

Founded in **2001**

2015 : launch of
Sycomore H@W

Conviction driven

54
happy employees

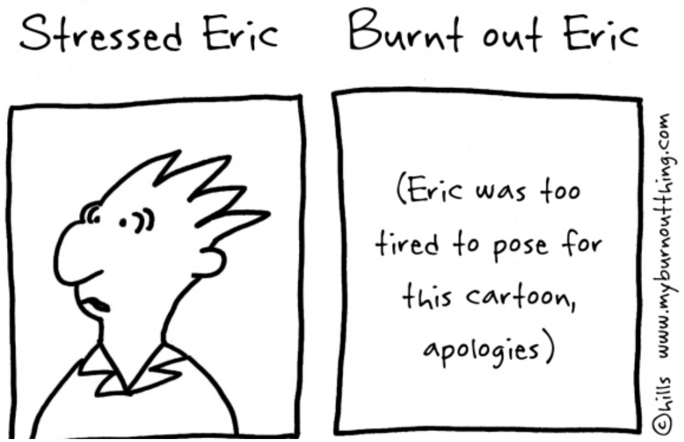
Data as of 29.05.2017.

human capital at the heart of performance

ILL-BEING: A COST FOR COMPANIES

Employees’ disengagement costs **$450bn** per year to the American industry

Gallup, 2013



WELL-BEING IMPROVES PRODUCTIVITY

LESS ABSENTEEISM
66% fewer absences[3]

BETTER PRODUCTIVITY
43% more productive[1]

MORE CREATIVITY
Staff is 86% more creative and innovative[2]

STRONGER GROWTH
Sales increase of 37%[5]

LOWER TURNOVER
Turnover is 51% lower[4]

FEWER ACCIDENTS AT WORK
41% fewer safety-related accidents[4]

Sources : 1. Hay Group. 2. UC Berkeley. 3. Forbes. 4. Gallup. 5. Martin Seligman.

key sources of information

1. Deep proprietary analysis with a long history of human capital data

2. Meetings and on-site visits to assess how employees feel and how they view their ecosystem

3. Additional sources of public data

4. Collaboration with specialists in the field of employee well-being

43 one-on-one meetings
focused on human capital

31 on-site visits
focused on human capital

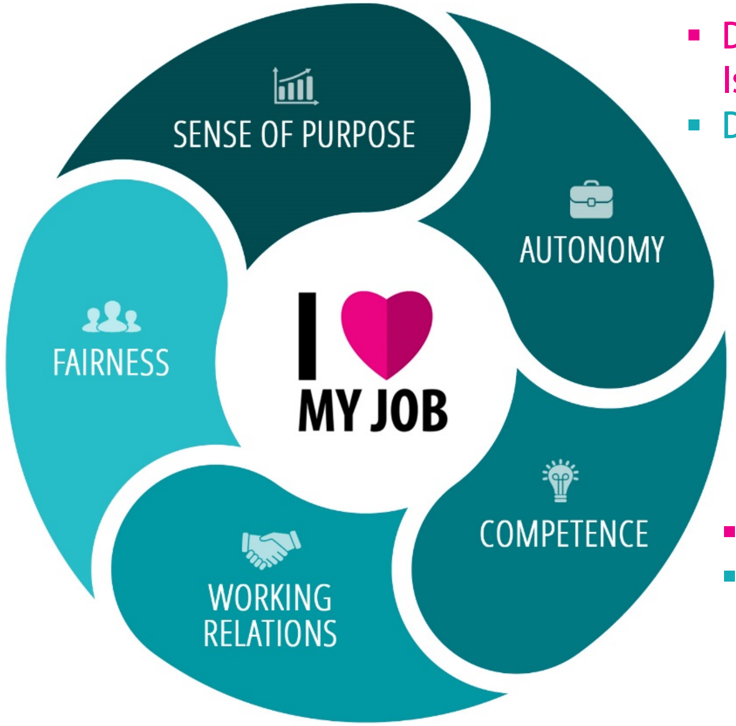
15 meetings with experts
exclusively based on human capital, former HRD contacted via Third Bridge

5 key pillars to assess happiness at work

- What are your company’s mission and values?
- % of employees who have an annual review

- Do we ask for your opinion? Is it taken into account?
- Decision-making process

- Are you rewarded when the company performs well?
- % of employee shareholding



- Do you have access to training?
- % of hire by internal promotion

- Are you happy to go to work?
- Turnover rate (%)

------ Examples of traditional social criteria
------ Five questions to assess employee well-being

a few examples of « happy » companies

34 engagement asks

in order to enhance practices at 28 companies

Michelin

French tire manufacturer

- Global employee satisfaction survey with goal to increase satisfaction rate to over 85% in 2020 vs 80% in 2016
- 63% of employees think the employee survey brings about positive change
- “Responsible restructuring”

Focus Home Interactive

French video game publisher

- Scores high on autonomy, working environment and personal development
- 30% employees are company shareholders

Wessanen

European producer of organic & healthy food (Bjorg, Clipper…)

- Scores high on sense of purpose: “Healthier food, healthier people, healthier planet”
- 98% of its 1,000 employees enrolled in the health@work programme

Appendix

Sycomore Happy@Work – fund characteristics

- Fund managers: Cyril Charlot, Bertille Knuckey and Claire Bataillie (analyst)
- ISIN code (I share): LU1301026206
- Domiciliation: Luxembourg – Sub-fund of Sycomore Fund Sicav
- UCITS V
- Inception date: 04/11/2015
- Daily pricing & liquidity, Cut off on D before 11am (BPSS)
- Subscription/redemption on T, on NAV T+1, settlement T+2
- No minimum subscription
- Management and outperformance fees
  - I share: 1.00%
  - Outperformance fees: 20% VAT above the benchmark Euro Stoxx TR with positive performance
- Subscription/redemption
  - Max subscription fee (not credited to the fund): 7% I share
  - Max redemption fee (not credited to the fund): None
- Turnover commission
  - No commission charged by Sycomore AM

Sycomore Happy@Work – fund risk profile

Synthetic risk and reward indicator

Lower risk, Higher risk,

1	2	3	4	5	6	7

potentially lower returns potentially higher returns.

- Capital risk: the investor is warned that the principal invested may not be entirely recovered.
- Equity risk, due to an equity exposure ranging from 60% to 100% of the AuM. Investors should bear in mind that the equity markets are particularly risky, that they can be subject to periods of low prices spanning several years that generate severe capital losses for investors. In case of market drop, the net asset value may lower. Moreover, it is likely that some holdings in portfolio experience a period of strong decrease while the equity markets rise. If the price of one or more stocks in portfolio decrease, the net asset value may lower, independently from the market trend.
- Liquidity risks: due to the shallowness of markets in which the Fund may be required to process buy or sell orders.
- Interest rate risk: up to 25% of the Sub-fund's assets are exposed to fixed income instruments, generating an interest rate risk. It represents the possible risk that interest rates fall if investments are made at a variable rate or that interest rates increase if investments are made at a fixed rate, the value of an interest rate product being an inverse function of the level of interest rates. In case of unfavourable variation of interest rates the net asset value may fall.
- Credit risk, up to 25% of the Sub-fund's assets are exposed to fixed income instruments and deposits, generating credit risk. It represents the possible risk of deterioration of the issuer's signature or failure, and this will have a negative impact on the price of debt securities issued by it or on the reimbursement of the deposits and therefore the Sub-fund's net asset value, resulting in a capital loss. The level of credit risk is variable depending upon expectations, maturities and the degree of confidence in each issuer, which may reduce the liquidity of the securities of an issuer and have a negative impact on the net asset value, particularly in the case of liquidation by the Sub-fund of its positions in a market with reduced transaction volumes.
- Risk related to the discretionary management: the management team can, in the indicated limits, freely allocate the FCP's AuM between the different asset classes, implying that the FCP can not be invested in the most performing markets at all time. In this case, the net asset value could lower.
- Counterparty risk: is the risk of failure of a counterparty leading to a payment default. The Sub-fund may be exposed to counterparty risk resulting from the use of financial contracts traded over the counter with a credit establishment. The Sub-fund is therefore exposed to the risk that one of these credit establishments cannot honour its commitments under such transactions, resulting then in a fall of the net asset value.

SYCOMORE
ASSET MANAGEMENT

Stream 1

Climate reporting: data, data everywhere, but what to do with it all to make practical financial decisions?

Annie Bersagel, *Acting Head, Responsible Investments,* **KLP Kapitalforvaltning**
David Lunsford, *Co-Founder,* **CARBON DELTA**

Moderator: Rick Stathers, *Head of Investor Research,* **CDP**

KLP's climate strategy: making sense of reporting

Annie Bersagel, Acting Head of Responsible Investments

KLP's climate strategy

- **KLP shall divest from coal companies**. Coal mining companies and coal power companies that obtain a high percentage of their revenues from coal. Minimum threshold: 50% **(since Dec. 2015, 30%)** or higher proportion of revenues from coal-based activities.

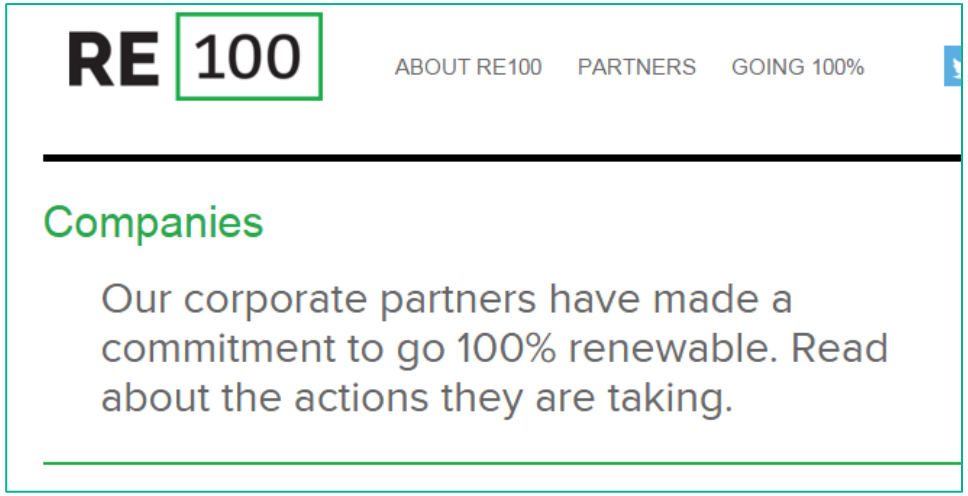
- KLP shall earmark an addition 500B NOK (about 60B EUR) towards **investments in new renewable energy capacity**.

- KLP shall measure and report on the portfolios' **carbon footprint**.

- KLP will **exercise active ownership** in companies with high CO_2 intensity

Climate-related active ownership priorities

1. Reporting on emissions and climate strategy through CDP
2. Norwegian leaders on renewables/RE100
3. Engagement to reduce emissions for those who pollute most
4. Cooperation with Nordic investors to engage with companies bases on CDP's industry reports
5. Partnership with CDP.



KLP has excluded over 80 companies for coal mining or coal power production

Coal-based activities

81
companies

Aboitiz Power
Adani Power Ltd.
Adaro Energy Tbk PT
AES Gener SA
AGL Energy Ltd.
Allete Inc
Alliant Energy
Ameren Corp
American Electric Power Co.
Appalachian Power
Banpu Public Comp. Ltd
Capital Power Corp
CESC Ltd
China Coal Energy Comp. Ltd
China Power International
China Resources Power
China Shenhua Energy
CLP Holdings Ltd
Coal India Ltd
CONSOL Energy Inc
Datang International Power
DMCI Holdings Inc

Drax Group
DTE Energy
Duke Energy Corp
Dynegy
E-CL SA6
Electric Power Development
Electricity Generating
Exxaro Resources Ltd
FirstEnergy Corp
Glow Energy Public Co.
Gujarat Mineral Dev
HK Electric Investments
Hokkaido Electric
Hokuriku Electric Power Comp.
Huadian Power International
Huaneng Power International
IDACORP
Indiana Michigan Power
Indo Tambangraya Megah
Inner Mongolia Yitai Coal Co.
Korea Electric Power
Lubelski Wegiel Bogdanka
MGE Energy
New Hope Corp
Northern States Power

NRG Energy Inc
NTPC Ltd
OGE Energy Corp
Okinawa Electric Power
Peabody Energy Corp
Pinnacle West Capital
PNM Resources
Public Power Corp
Public Serice Co of Colorado
Public Service Co of Mexico
Reliance Infrastructure
Reliance Power Ltd
Shikoku Electric Power
Shougang Fushan Resources
Southwestern Public Service
Tambang Batubara Bukit
Tata Power Co. Ltd
TransAlta Corp
The Southern Company
Union Electrric Co
WEC Energy Group
Wisconsin Electric Power
Westar Energy
Whitehave Coal Ltd

Xcel Energy
Yanzhou Coal Mining Comp. Ltd

Investments in renewable energy thus far

Investment	Country	Energy type	MW	Status
d.Light	Africa and Asia	Distributed solar power	---	Production
Scatec Solar Los Prados	Honduras	Solar	53	Construction
Scatec Solar Mocuba	Mozambique	Solar	40	Construction start
Scatec Solar Linde	South Africa	Solar	40	Production
Scatec Solar Dreunburg	South Africa	Solar	75	Production
Lake Turkana	Kenya	Wind	310	Construction
Scatec Solar Rwanda	Rwanda	Solar	8,5	Production
Scatec Solar Agua Fria	Honduras	Solar	50	Production

KLP

klp

RI EUROPE 2017

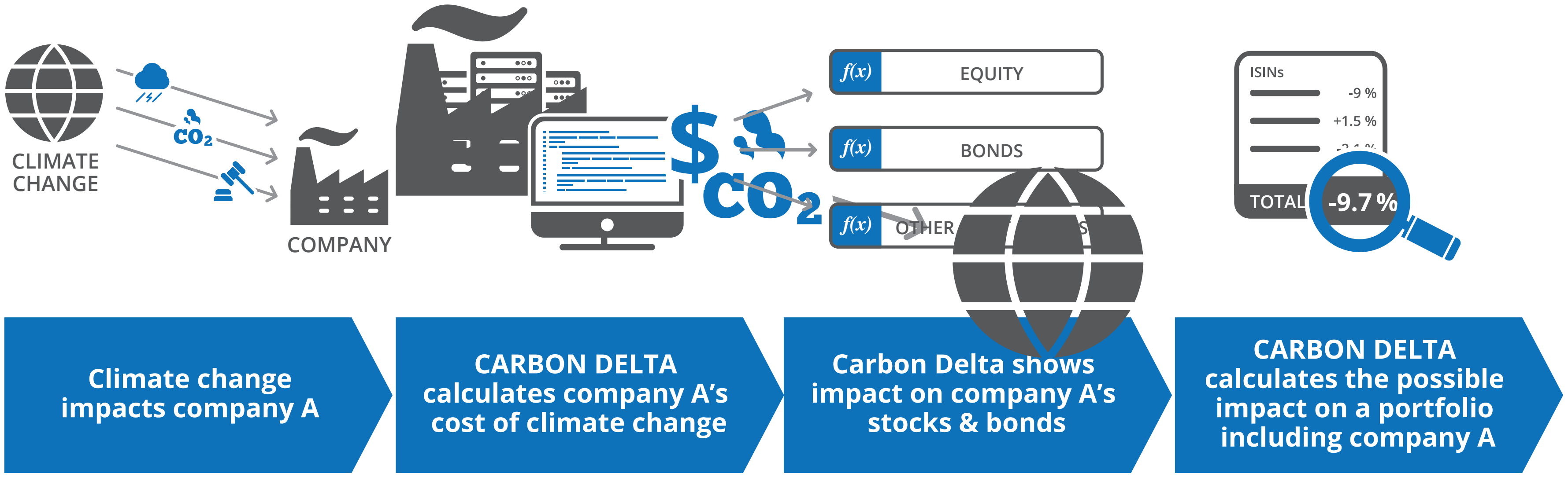
6 June 2017 | David Lunsford
Co-Founder & Head of Development

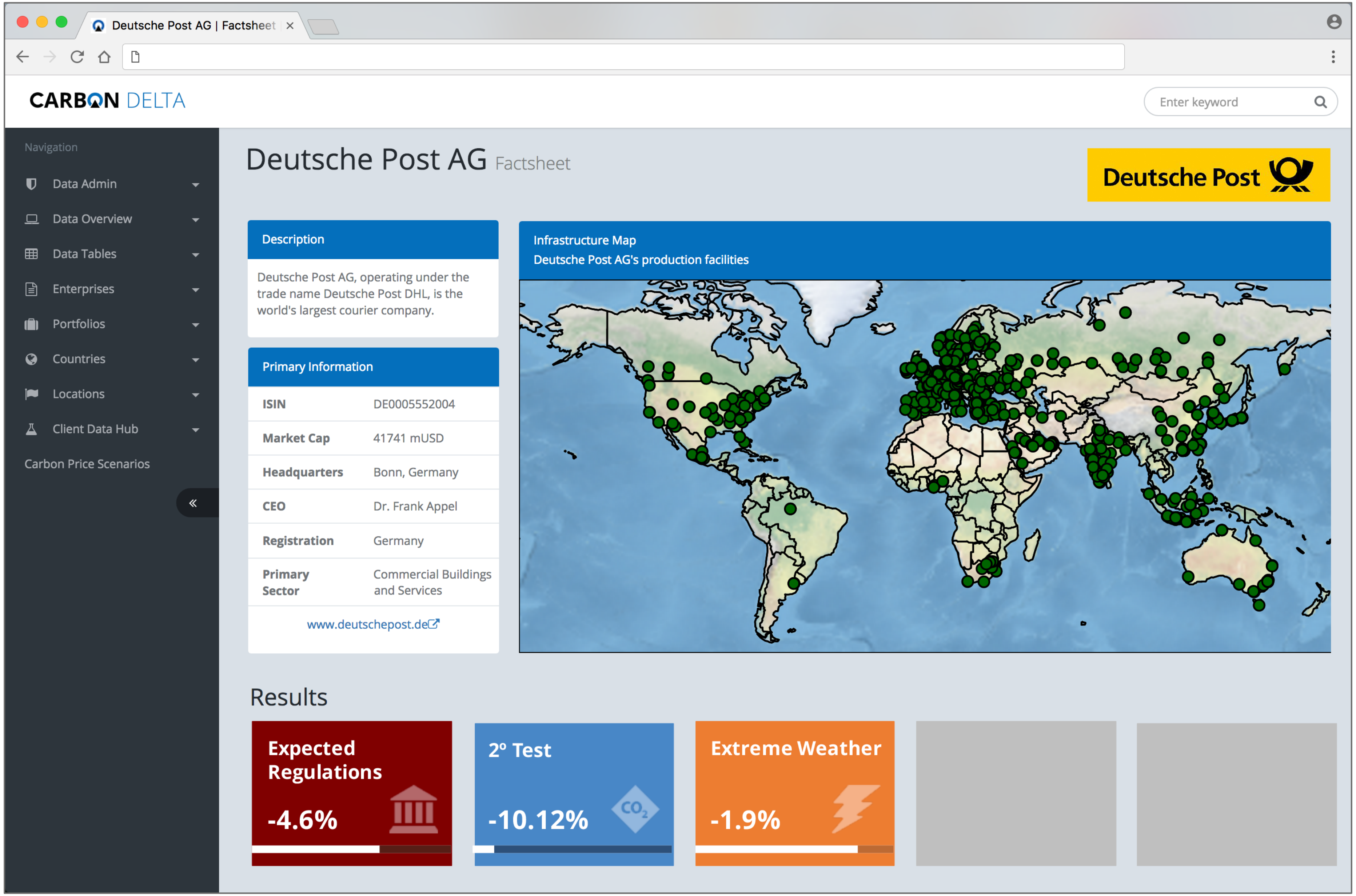
Climate Change invades the Financial Sector

ACCELERATION OF CLIMATE-RELATED FINANCIAL INITIATIVES

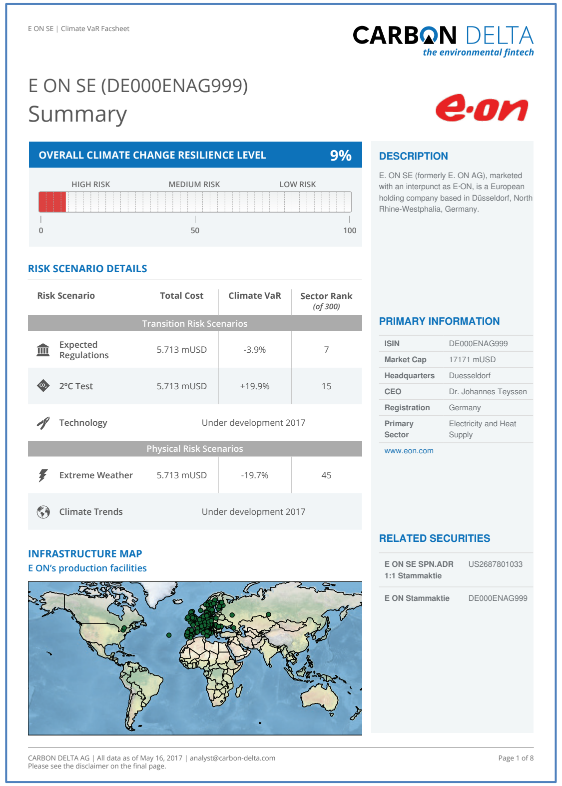
- 2000 — Carbon Disclosure Project (CDP)
- 2005 — Principles for Responsible Investment
- 2014 — Global Investor Statement on Climate Change
- 2014 — Montreal Carbon Pledge
- 2015 — French Art. 173: The Energy Transition Law
- 2016 — TCFD Phase II Report
- 2019 — IORP II Directive
- 2020 — California Law SB 560 Financial Climate Risk Reporting

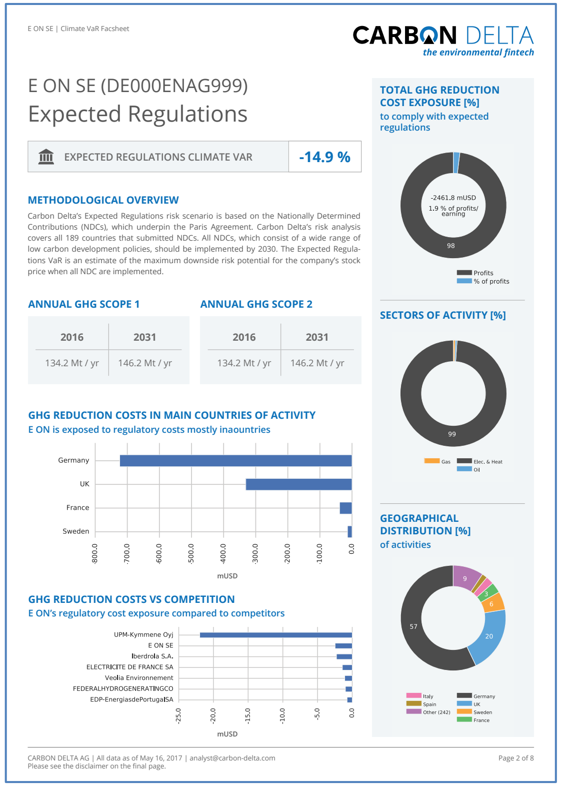
The Climate Value-at-Risk (VaR) Process




Deutsche Post AG | Factsheet
CARBON DELTA
Enter keyword
Navigation
Data Admin
Data Overview
Data Tables
Enterprises
Portfolios
Countries
Locations
Client Data Hub
Carbon Price Scenarios
Deutsche Post AG Factsheet
Deutsche Post
Description
Deutsche Post AG, operating under the trade name Deutsche Post DHL, is the world's largest courier company.
Primary Information
ISIN DE0005552004
Market Cap 41741 mUSD
Headquarters Bonn, Germany
CEO Dr. Frank Appel
Registration Germany
Primary Sector Commercial Buildings and Services
www.deutschepost.de
Infrastructure Map
Deutsche Post AG's production facilities
Results
Expected Regulations
-4.6%
2° Test
-10.12%
CO_2
Extreme Weather
-1.9%

Carbon Delta Factsheets = Transparency





***We currently cover 25,000 companies**

CARBON DELTA

the environmental fintech

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Stream 1

Corporate Governance:

Rakhi Kumar, *Managing Director and Head of ESG Investments and Asset Stewardship,*
State Street Global Advisors
Cecilia Barsk, *Associate Director, Advisory Services,* **Sustainalytics**

Moderator: Daniel Brooksbank, *Editor,* **Responsible Investor**

Stream 1

How to apply a low carbon investment approach

Colin Baines, *Investment Engagement Manager*, **Friends Provident Foundation**
Eric Shirbini, *Global Research and Investment Solutions Director,* **ERI Scientific Beta**

Moderator: Jakob Thomä, *Director,* **2° Investing Initiative**

ScientificBeta
An EDHEC-Risk Institute Venture

Smart Beta and Low Carbon Investing

Eric Shirbini Ph.D.
Global Research and Investment Solutions, ERI Scientific Beta

RI Europe 2017, 07 June 2017

Investment Philosophies behind Low Carbon Investing

- Low carbon as a **beta** (rewarded factor):
  - AWhile some see low carbon as a rewarded factor, this is difficult to justify. Rational asset pricing theory suggests that, in the long run, the stocks of green corporations would not offer higher rewards if by virtue of their environmental quality they are less risky i.e. they offer relatively high returns in "bad times" when marginal utility of consumption is high (e.g. less exposed to a sharp rise in the cost of greenhouse gas emissions). From a behavioral perspective, it is not clear what kind of behavioral bias would lead investors to shun low carbon stocks.
- Low carbon as a way to generate **alpha**
  - Low carbon criteria will be the key driver of portfolio construction (selection and weighting). However, that low carbon delivers alpha is neither empirically validated nor theoretically plausible. In particular, is it reasonable to believe that the expected increases in costs for high carbon stocks due to regulations on carbon emissions is not at all reflected in current market prices? This would mean that the market is not informed about carbon risk or that it does not take this information account in current prices. This seems a surprising idea if one considers that information is easily available on low carbon exposure of a stock.
- Low carbon as an **option**
  - Low carbon investing will avoid exposure to extreme losses in the future linked to changes in climate and regulation but in the short term the objective is to minimize tracking error with respect to cap-weighted indices. This approach thus relies on models of tracking error minimization.
- Low carbon as a **constraint**
  - Low carbon is seen as a constraint to be respected but performance is generated using proven techniques that are based on academic foundations, namely portfolio construction and asset pricing. Diversification and factor investing aim at generating performance subject to a constraint with respect to carbon impact.

ERI Scientific Beta Low Carbon Index Construction

Exclude top 2% carbon emitting and coal mining stocks from developed universe

Exclude top 2% carbon emitting stocks from each region

Exclude top 25% carbon intensive stocks from each subsector

Low Carbon Value Stocks	+	Multi-Strategy Weighting		
Low Carbon Mid Cap Stocks	+	Multi-Strategy Weighting		
Low Carbon High Momentum Stocks	+	Multi-Strategy Weighting		
Low Carbon Low Volatility Stocks	+	Multi-Strategy Weighting	=	**ERI Scientific Beta Low Carbon Multi-Beta Multi-Strategy Indices**
Low Carbon High Profitability Stocks	+	Multi-Strategy Weighting		
Low Carbon Low Investment Stocks	+	Multi-Strategy Weighting		

Performance of ERI Scientific Low Carbon indices

- The Sharpe ratio of low carbon indices (0.35 and 0.38) is significantly higher that that of the cap-weighted benchmark (0.21).
- The performance of low carbon indices is similar to that of standard indices: a Sharpe ratio of 0.35 and 0.38 vs. 0.32 and 0.36 for four- and six-factor low carbon and standard indices, respectively.

31/12/2006 to 30/12/2016 (10 years)	Developed CW	Developed Multi-Beta Multi-Strategy EW		Developed Low-Carbon Multi-Beta Multi-Strategy EW	
		Four-Factor	Six-Factor	Four-Factor	Six-Factor
Annualised Return	4.40%	5.83%	6.30%	6.20%	6.62%
Annualised Volatility	17.51%	15.94%	15.85%	15.80%	15.70%
Sharpe Ratio	0.21	0.32	0.36	0.35	0.38
Annualised Rel. Return	-	1.43%	1.90%	1.80%	2.23%
Tracking error (w.r.t. CW)	-	2.68%	2.68%	2.88%	2.91%
Information Ratio	-	0.53	0.71	0.63	0.77
Ann 1-W Turn.	4.15%	38.99%	33.53%	44.67%	39.41%

Performance analysis - *The period of analysis is 31/12/2006 to 30/12/2016 (10 years). We use daily Total Return series in USD. The turnover has been calculated as the average over the last 40 quarterly rebalancing ending December 2016. Constructing a low carbon index involves excluding high carbon stocks and thereafter applying the Scientific Beta Smart Factor index construction methodology to the remaining stocks. We exclude stocks that are identified by any of the following criteria, applied independently: coal mining companies (identified by Level 3 TRBC classification) in the Developed universe, top 2% companies by Total Emission in the Developed universe, top 2% companies by Total Emission in each of Scientific Beta's geographic basic blocks and top 25% companies by Carbon Intensity in each of the Level 2 TRBC sub-sectors (or Level 1 in the event that any one of the Level 2 sub-sectors does not have at least four stocks).*

Carbon Metrics

- The Scientific Beta Developed Low-Carbon Multi-Beta Multi-Strategy Four-Factor and Six-Factor EW indices display a strong reduction in Carbon Footprint with respect to the Developed cap-weighted benchmark.

16/12/2016	Developed Multi-Beta Multi-Strategy EW		Developed Low-Carbon Multi-Beta Multi-Strategy EW	
	Four-Factor	Six-Factor	Four-Factor	Six-Factor
Carbon Footprint	34.3%	27.8%	-34.7%	-38.3%
Carbon Intensity	74.7%	50.1%	-21.1%	-30.8%

Change in carbon metrics (w.r.t. Developed CW benchmark) - *The exhibit reports the change in carbon metrics of the Scientific Beta standard and the corresponding low carbon indices compared to the cap-weighted benchmark (SciBeta Developed Cap-Weighted) as of 16/12/2016. The carbon metrics report two measures: the Carbon Footprint and the Carbon Intensity. The Carbon Footprint of the index represents the total emissions in relation to an investment of one billion US$ in the index. It is calculated as Carbon Footprint = 1 B$ x Σ [w_i x (Total $Emissions_i$ / $MCap_i$)]. The Carbon Intensity of the index is the weighted average carbon intensity of the individual companies in the index. It is calculated as Carbon Intensity = Σ [w_i x (Scope 1&2 $Emissions_i$ / $Revenue_i$)]. The terms w_i, Total $Emissions_i$ and $MCap_i$ refer to the weight, the sum of Scope 1, 2 and 3 emissions, and the total market capitalisation, respectively, for the stock i, where i varies from 1 to N. N is the total number of index constituents. The units for Carbon Footprint and Carbon Intensity are tonnes per billion investment in US$ and tonnes per million revenue in US$, respectively. A negative (positive) change in carbon metrics implies a reduction (increase) in carbon metrics with respect to the broad cap-weighted benchmark.*

Summary

- To encourage "green" investment, ERI Scientific Beta's Low Carbon indices offer access to short- and medium-term outperformance by using the traditional sources of smart beta – exposure to rewarded factors and diversification – as a complement to the long-term low carbon premium, which has yet to be demonstrated.

- ERI Scientific Beta's approach to constructing low carbon indices is:
  - Mild exclusion of shares of high carbon emitting companies.
  - Use of portfolio construction techniques to design portfolios that are exposed to rewarded risk factors and are well diversified.

- The Scientific Beta Developed Low-Carbon Multi-Beta Multi-Strategy Four-Factor and Six-Factor EW indices allow around 35%-40% reduction in the Carbon Footprint relative to the cap-weighted benchmark.
  - This reduction is achieved without compromising the performance and risk characteristics of the Low Carbon index.

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Stream 1

What will the work of the Financial Stability Board's Taskforce on Climate related Financial Disclosure (TCFD) mean for data and information transparency?

Mark Lewis, *Member*, **FSB Task Force on Climate-related Financial Disclosures** and *Managing Director, Head of European Utilities Equity Research*, **Barclays**
Lauren Smart, *Managing Director, Global Head of Financial Institutions Business*, **Trucost**

Moderator: Remco Fischer, ***Programme Officer,*** **UNEP Finance Initiative**

Stream 1

Big Data Processing

Carlota Garcia-Manas, *Deputy Head of Engagement,* **Church Commissioners for England** and **Church of England Pensions Board**

Pierin Menzli, *Head, Sustainable Investment Research,* **Bank J. Safra Sarasin**

Moderator: Andreas Hoepner, *Associate Professor of Finance,* **ICMA Centre, Henley Business School**

J. SAFRA SARASIN
Nachhaltiges Schweizer Private Banking seit 1841

Big Data Processing – Many untapped opportunities

RI Europe Conference 2017

Pierin Menzli
Head Sustainable Investment Research, Bank J. Safra Sarasin

June 7th 2017

Leading Asset Manager for Sustainable Investments

J. SAFRA SARASIN
Sustainable Swiss Private Banking since 1841

Bank J. Safra Sarasin expertise

- We are one of the **pioneers** and **innovators** in sustainable investing with more than 25 years of experience
- One of largest fully **integrated investment teams** dedicated to sustainable investments
- **Data and technology driven approach** to improve client benefits
- **JSS Sustainable Investing Menu Card:** We **customise** clients' views of sustainability

Series of Technological Breakthroughs Reshaping Our World

J. SAFRA SARASIN
Sustainable Swiss Private Banking since 1841

Disruption with wide-reaching implications

Automation

"Demand for service robots seen at breakthrough"

reuters.com, 12.10.2016

Artificial Intelligence

"Google's DeepMind defeats legendary Go player Lee Se-dol in historic victory"

theverge.com, 09.03.2016

Internet of Things

"Could millions of connected cameras, thermostats and kids' toys bring the internet to its knees? It's beginning to look that way"

toptechnews.com, 21.10.2016

Space Innovation

Data-hungry hedge funds invest in a fleet of fleet of five dozen shoebox-sized satellites to get an information edge

The Wall Street Journal, 14.08.2016

Virtual Reality

"When virtual reality gets cheaper than dating, the society is doomed"

Scott Adams

Economist, May 6th 2017

Economist, May 9th 2015

Digital Transformation Impact
Economic, Environmental & Social Value at Risk

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Digital Transformation Impact across Industries

Industry	Cumulative Value 2016-2025 to Society and Industry ($ billion): Societal[1]	Cumulative Value 2016-2025 to Society and Industry ($ billion): Industry	Reduction in CO_2 Emissions (million tonnes)	Jobs (000s)
Consumer	5,439	4,877	223	-3,249
Automotive	3,141	667	540	NA
Logistics	2,393	1,546	9,878	2,217
Electricity	1,741	1,360	15,849	3,158
Telecom	873	1,280	289	1,100[2]
Aviation[4]	705	405	250	-780
Oil & Gas	637	945	1,284[3]	-57
Media	274	1,037	-151	NA
Mining[4]	106	321	608	-330
Chemistry[4]	2	308	60	-670

(1) Total societal value at stake includes impact on customers, society and the environment; the impact on external industries has not been considered; (2) Excludes the Extending Connectivity digital initiative; (3) Reduction in emissions for Oil and Gas refers to reduction in CO_2e emissions (4) Aviation refers to Aviation, Travel and Tourism; Mining to the Mining and Metals industries and Chemistry refers to Chemistry and Advanced Materials.

Source: Digital Transformation Initiative, World Economic Forum, Accenture, 2017

Opportunity I: Technology Disruptors Strategy

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Investing in enablers and early adopters across sectors

Innovation	Key Industries		Company Examples
Big Data and Analytics Artificial Intelligence	Enablers	Software, internet, semiconductors	Xilinx, Splunk, Alphabet
	Early adopters	Automotive, healthcare	
Cloud Internet of Things Space Innovation	Enablers	Telecoms, satellite, semiconductors	Juniper, GoDaddy, Orange
	Early Adopters	Automotive, farming	
Autonomous Driving Virtual Reality Robots and Drones	Enablers	Materials, semiconductors, hardware	Fanuc, Cognex, Activision Blizzard
	Early Adopters	Industrial machinery, healthcare, gaming	

Source: Bank J. Safra Sarasin

Opportunity II: Data driven novel client approach

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Financial data science & collaboration

- Working with in-house financial data science analysts
- Teaming with external academic financial data science laboratory
- Collaborating with institutional clients to define and customize specific beliefs

=> Delivering client and data driven investment strategies

Opportunity II: Data driven novel client approach
JSS Sustainable Investing Menu Card

Please make your choices!		
▪ Aperitivo	**Sustainable Investing Education**	
▪ Antipasto	**ESG & Exclusions Research**	Beta
▪ Primo	**Special Research Focus – Climate 2° Aligned & SDG Impact**	
▪ Secondo	**Alpha Analysis**	α
▪ Contorno	**Active Owernship – Voting & Engagement**	
▪ Formaggi & Frutta	**Portfolio ESG Analytics & Reporting**	

Source: Bank J. Safra Sarasin

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