Deloitte.



The place of technology in Art & Finance

11th Art & Finance Conference

26 October 2018

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Agenda - The place of technology in Art & Finance Morning Program

Time Frame	Subject	Speakers
09:00 - 09:30	Registration and welcome coffee	
09:30 - 09:40	Welcome speech	John Psaila – Managing Partner, Deloitte Luxembourg Nasir Zubairi – CEO, The LHoFT Patrick Laurent – Partner, Technology & Innovation Leader, Deloitte Luxembourg
09:40 - 09:45	Introduction	Adriano Picinati di Torcello – Director, Advisory & Consulting, Global Art & Finance Coordinator, Deloitte Luxembourg
09:45 - 10:15	Your Digital DNA determines the scalability of your Digital Technology Operating Model	Keynote speaker: Hans van Grieken – EMEA Technology Research & Insights Leader, Deloitte Netherlands
10:15 - 10:30	The place of technology in the Art & Finance space	Keynote speaker: Pierre Naquin – Founder & CEO, AMA (Art Media Agency)
10:30 - 11:30	Panel 1 The challenges to deploy blockchain in the art market to allow fractional investment in artworks	Moderator: Frédéric de Senarclens – Founder, ArtMarketGuru Panelists: Dino Lewkowicz – Member of the Board of Directors, ARTechnologies Frédéric Laffy – CEO, Danae HI Niccolò Filippo Veneri Savoia – Founder & CEO, Look Lateral Lukasz Radawiec – CSO, ArtWallet David Dehaeck – Co-founder & CEO, artfintech.one
11:30 - 12:30	Panel 2 Art, Law and Technology: what are the main challenges?	Moderator: Giuseppe Calabi – Senior Partner, CBM & Partners Panelists: Montieth Illingworth – CEO & Managing Partner, Montieth & Company Abby Brindley – Associate, Art Law, Mishcon de Reya Dr. Nicolas Galley – Director of Studies, Executive Master in Art Market Studies University of Zurich Emmanuelle Ragot – Avocat à la Cour, Intellectual, Property, Data Protection & Technologies Partner and Head of Wildgen 4 Art, Wildgen S.A. Antoine Verdon – Co-Founder & CEO, BlockFactory AG

Agenda - The place of technology in Art & Finance Afternoon Program

Time Frame	Subject	Speakers
13:45 - 15:00	Panel 3	Moderator: Anders Petterson – Founder & Managing Director, ArtTactic
	Risk management: how technology can support trust in the art market	Panelists: Maxime Heckel - Director, Strategy & Operations, Deloitte Luxembourg
		Bagrat Bayburtian – Managing Director, Transactions and Business Analytics LLP, Deloitte US
		Emmanuel Moyrand - Co-founder & President, Monuma
		Calogero Scibetta - Head of Business Development, Everledger
		Andrea Concas - Founder & CEO, Art Rights
		Simon Hornby – President, Crozier Fine Arts
15:00 - 16:00	Panel 4	Moderator: Henry Blundell – CEO, MasterArt
	Big Data & Artificial Intelligence: how to improve Analytics, Financial Decision & Experience in the art market	Panelists: Sophie Neuendorf - VP, artnet
		Olivier Zephir - Ph D Business Advisor, Technoport SA
		Catherine D. Henry - SVP Branding, Strategy & Innovation, Palpable Media
		Paul Lindahl - CEO & Director, Arius Technology
		Zohar Elhanani – CEO, MutualArt
16:00 - 16:30	Coffee Break	
16:30 - 17:30	Panel 5	Moderator: Adriano Picinati di Torcello – Director, Advisory & Consulting,
	Investment in ArtTech companies	Global Art & Finance Coordinator, Deloitte Luxembourg
		Panelists: Alain Rodermann - Founder & Managing Partner, Expon Capital (Digital Tech Fund)
		Reine-Marie Fontaine Taittinger – Co-founder, ARTEÏA
		Tom Toumazis - Executive Chairman, TAGSMART
		Nasir Zubairi – CEO, The LHoFT
		Maria Chiara Amadori - Senior Transaction and Relationship Officer, European Investment
17:30 - 17:45	Closing speech	Stéphane Flaquet - CEO Europe, Hiscox
. ,		
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Technology in Art & Finance: an insurer perspective	

Patrick Laurent

Partner, Technology and Innovation Leader, Deloitte Luxembourg



11th Art & Finance Conference | 26 October 2018

The place of technology

ArtTech & The Digital Transformation in the Art Business



ArtTech is more than this...





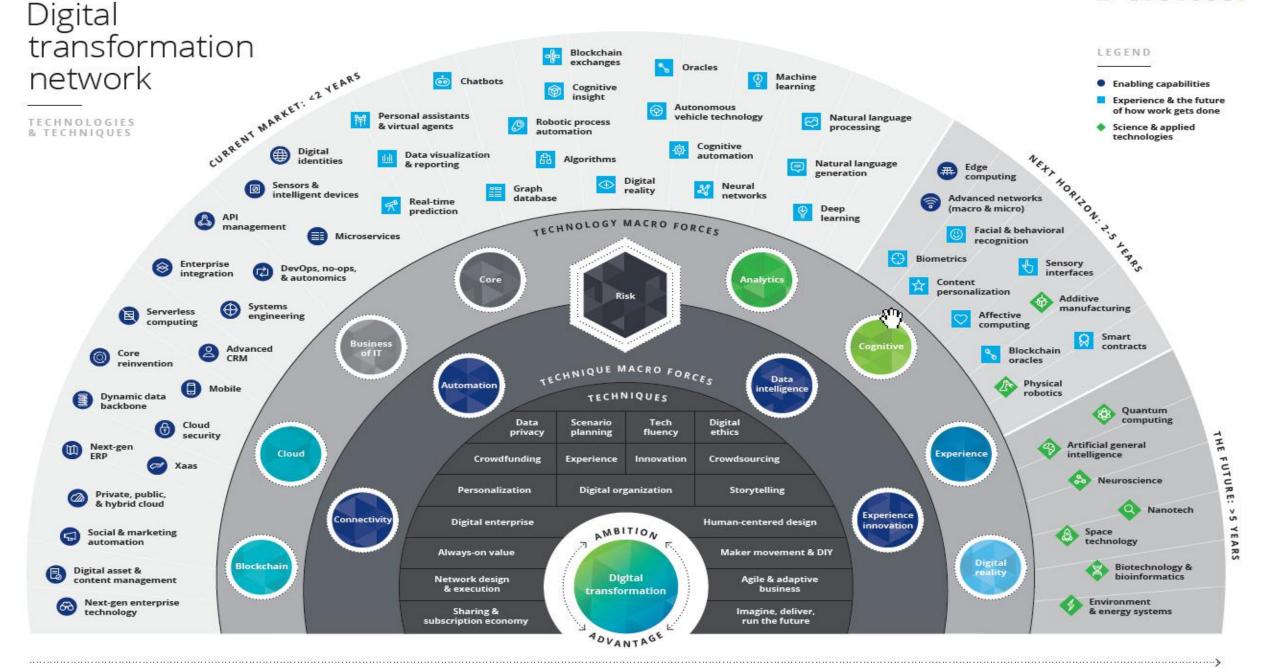
Digital Transformation is an adventure

FUTURE-PROOF A BUSINESS

Define ambition to then gain advantages using innovation, design, organization and digital technology applied to existing and new business models - in strategic, creative, agile and adaptive ways, through innovating offerings to rapidly enable what is needed at scale for exponential impact.

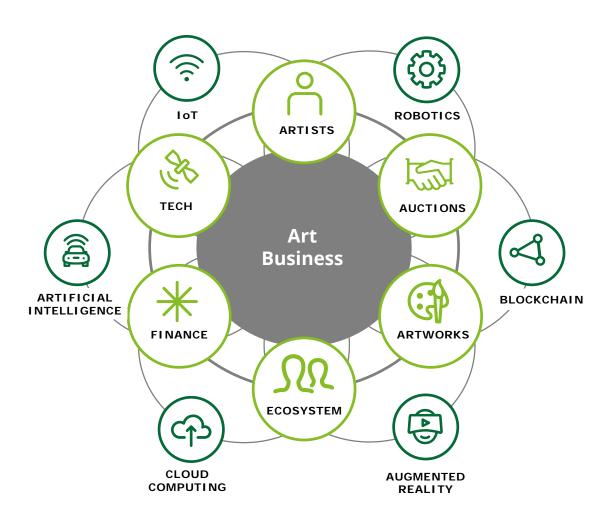
Six forces that are practically shaping everything





TIME

A new ArtTech eco-system supporting the digital transformation of the industry is emerging



Digital art market

Increasing trust and transparency

Provenance, authenticity and certification

Data driven valuation

Fractional ownership

Eco-system transformation

Al generated works of art

Introduction

Adriano Picinati di Torcello

Director, Advisory & Consulting, Global Art & Finance Coordinator, Deloitte Luxembourg



11th Art & Finance Conference | 26 October 2018



350 participants

2nd biggest Art & Finance conference



26 nationalities

Representatives from 9 Deloitte offices



235 companies

- 60 ArtTec companies
- 60 Financial players
- 50 Art businesses
- 20 Law firms
- 10 Universities
- 35 others incl.10 press

Art & Finance is uniquely positioned at the intersection of three interconnected sectors

Finance

- Private bankers
- Wealth managers
- Family offices
- Private investors/collectors
- Art/collectible fund promoters
- Art insurance companies
- Art trading companies
- Etc.



Culture

- Large public museums
- Private museums
- Corporate collectors
- Private collectors
- Public authorities (country, region, city, etc.)

15

• Etc.

Business

- Companies selling art
- Digital art companies
- Art logistics companies
- Art fairs

- Art & media companies
- ArtTech companies
- Creative industries
- Etc.

Source: Deloitte Luxembourg © 2018 Deloitte Tax & Consulting

Macro trends: Art & Technology...

Art trends

Finance trends

Globalization & democratization





Expanding class of ultra-highnet-worth (UHNWI) buyers

Transparency, regulation, professionalism





Financialization: art as a capital asset

Art & technology, digitization & virtualization







Art secured lending

New economic reality for public cultural institutions, soft power of culture, economic driver, world cultural heritage







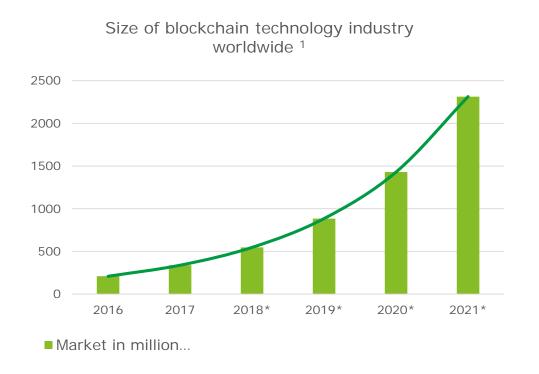
Tax and estate assistance

New business models & sales channels, creative sectors, cultural citizenship

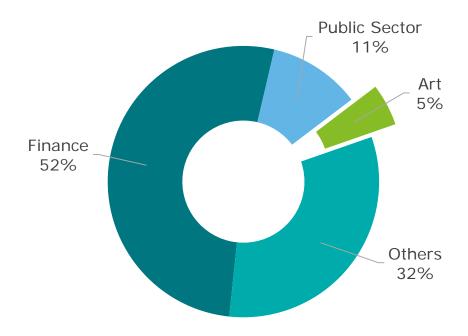
Risk management, collection management and asset allocation

Source : Deloitte Luxembourg

Blockchain industry is growing exponentially...



Distribution of blockchain opportunities by industry ²



... however, across all blockchain opportunities, only 5% are related to Art

^{*} Theoretical values

¹ Statista, web search

² McKinsey Panorama, web search

The place of technology in Art & Finance....

...are we at a turning point?



Your Digital DNA determines the scalability of your Digital Technology Operating Model

Hans van Grieken

EMEA Technology Research & Insights Leader, Deloitte Netherlands



MITSloan/DU Press: 6 years of Global Research



What Digital DNA Traits did we Cluster?

Strategy-led

Digitally mature

Talent-driven

Empowered

Long-term thinker

People development

Collaborative

Leadership-driven

Innovative

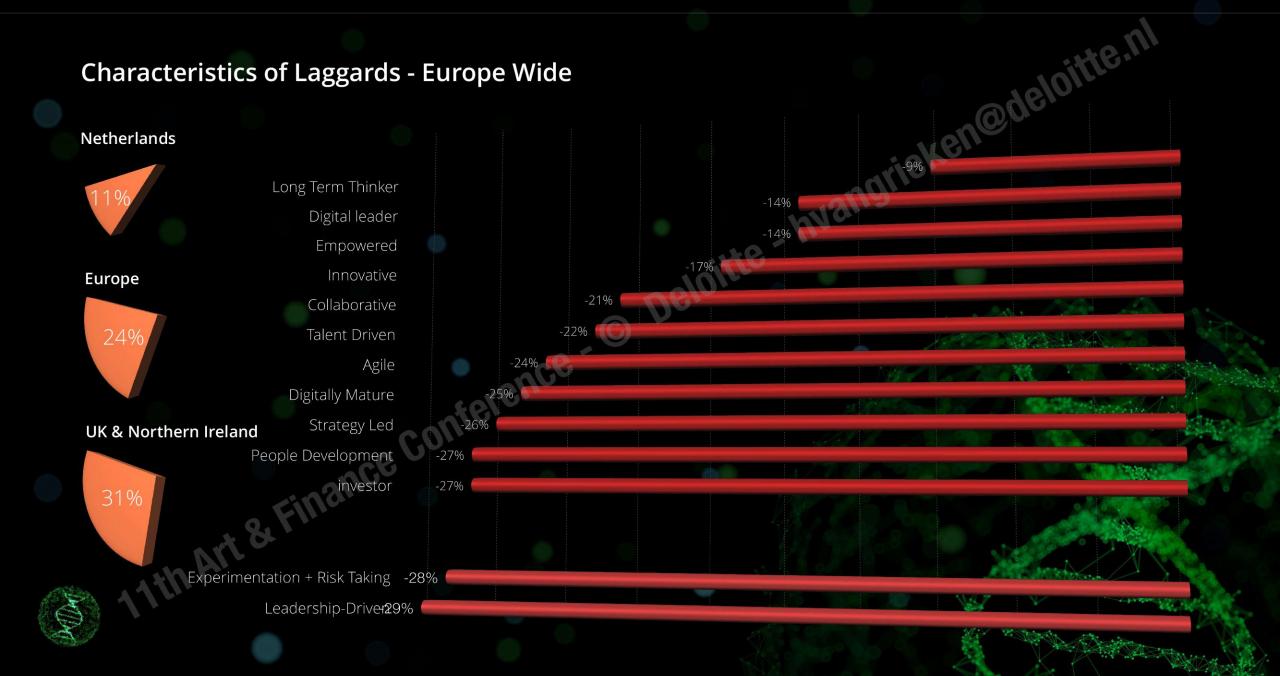
Agile

Investor

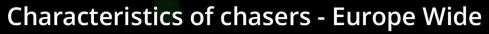
Experimentation and Risk taking

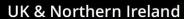
Digital leader

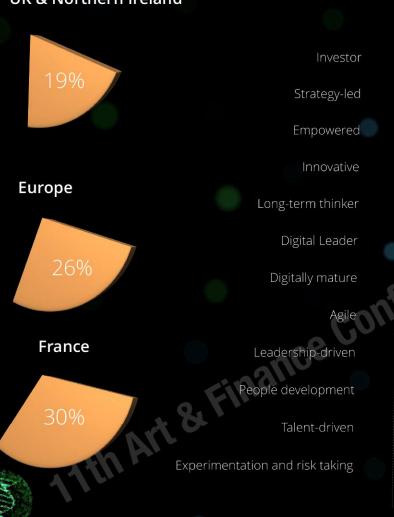
With Art & Final

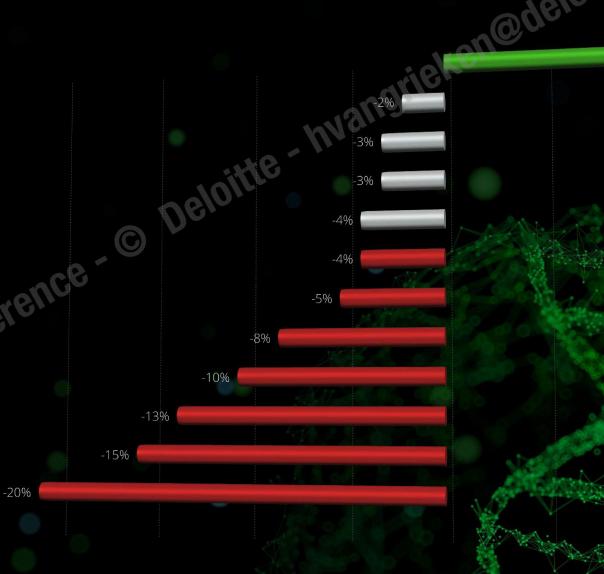


13%

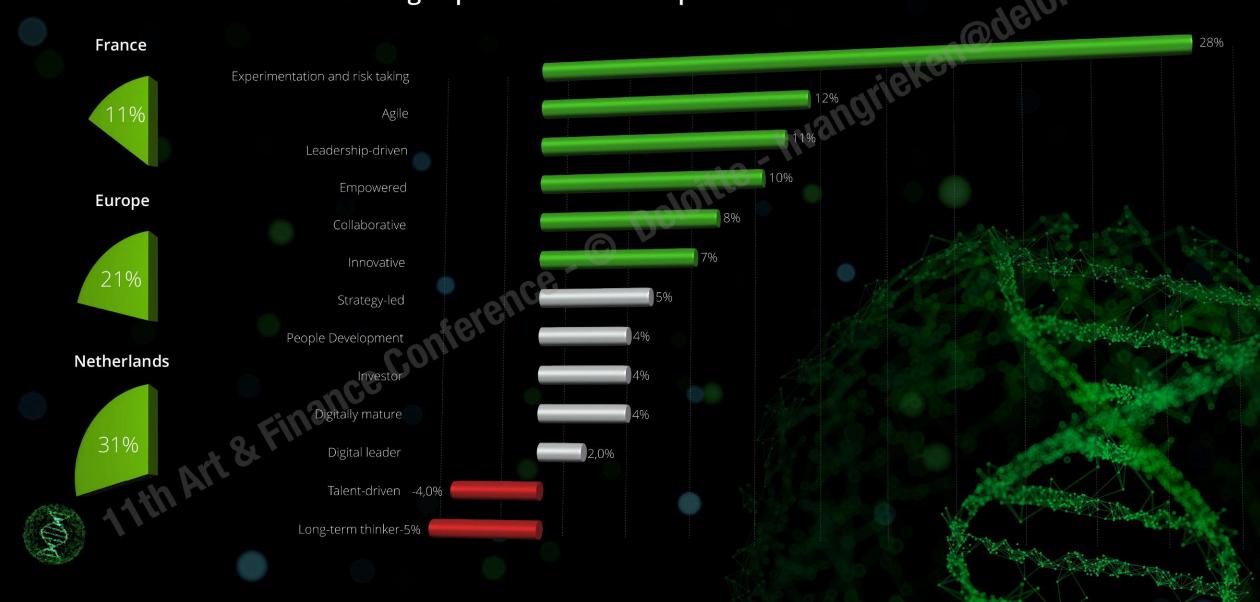




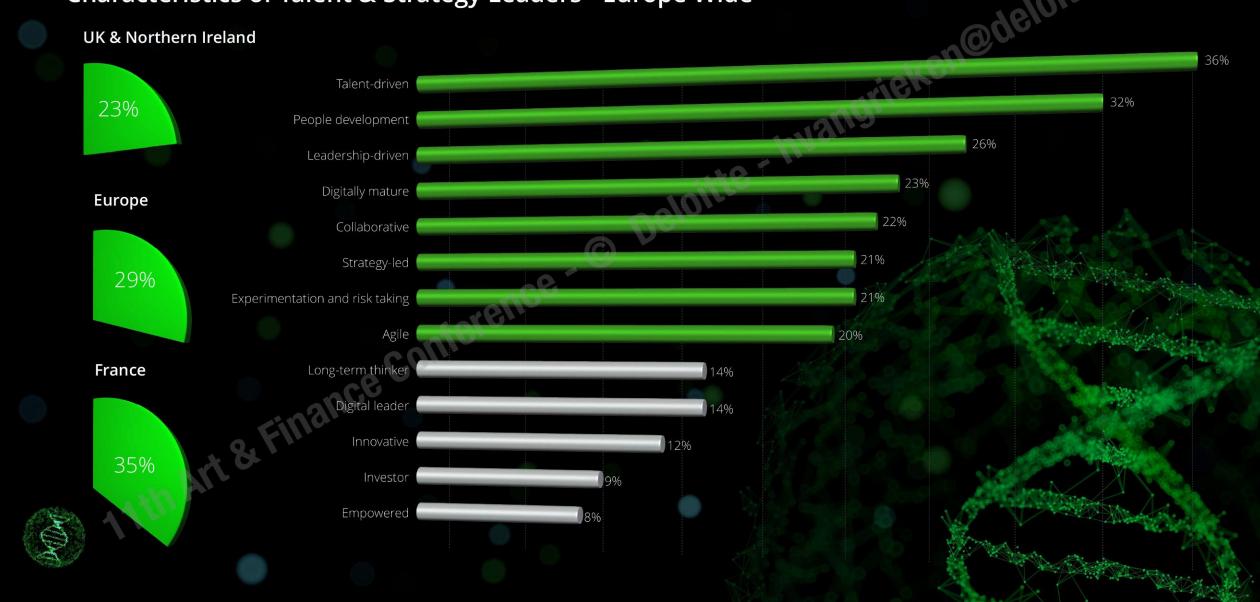




Characteristics of Fast Moving Experimenters - Europe Wide



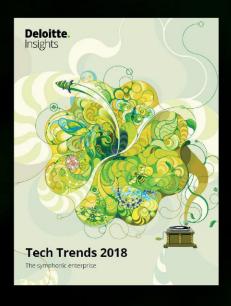
Characteristics of Talent & Strategy Leaders - Europe Wide



Deloitte.

@ Deloitte we annually produce a number of Global "flagship Eminence Publications" geared at our clients to help them better understand the implications of Digital Transformation ...

Global Technology Trends



Digital DNA/MIT Sloan



Global CIO Survey



Outsourcing Survey





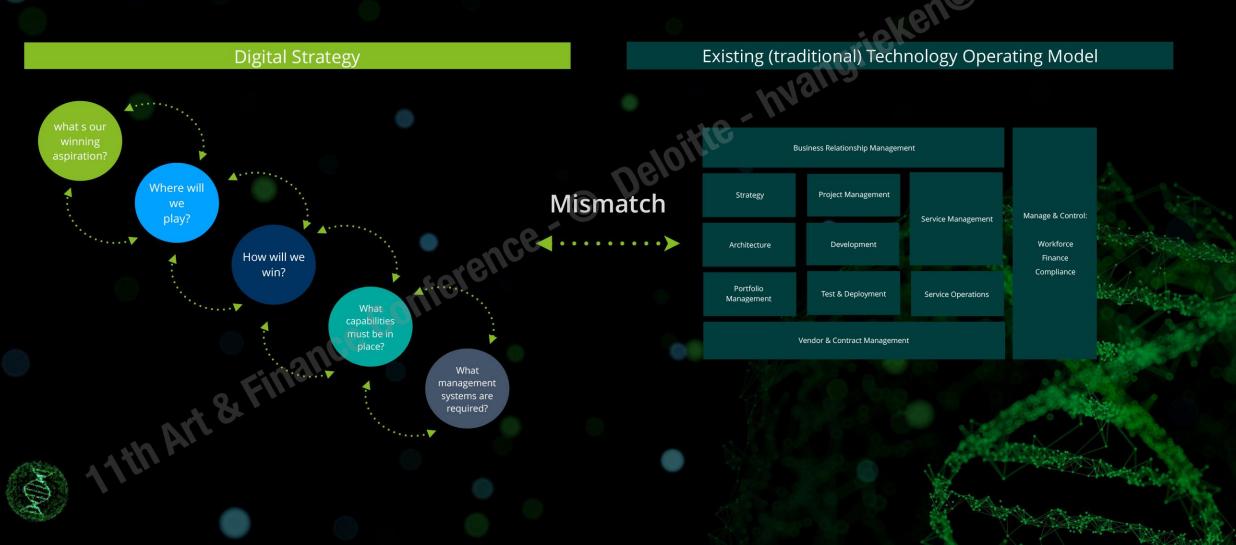


Digital Technology Operating Models

Since Digital Disruption is not going to go away for the coming 15 years, the need for a scalable Digital Technology Operating Model becomes a necessity ...



Yet a lot of organisations struggle with the mismatch between their Digital Strategy & their existing Legacy Landscape, creating different - even conflicting - Technology Operating Models



To address these challenge a colleague of mine and I recently produced this piece of research: what 9 shifts will determine your future Digital ERA Technology Operating Models ...





Introducing 9 Shifts that might influence the future of your Technology Operating Model ...





Agility and speed become the new norm.

Organizations learn and adapt by experimenting and fast deployment.



3 Big Shifts in 'Resources'



The workforce transitions as digital, data, AI, and robotics create new jobs and cause existing jobs to disappear.



3 Big Shifts in 'Technology'

7.

Cloud becomes the dominant IT delivery model, with highly **automated** IT processes.



2

The **boundaries** between business and IT blur, business-led IT increases, and tech fluency is vital for all.



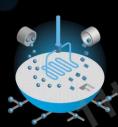
5.

Organizations adopt the vision, values, culture, and leadership required to build digital DNA.



8.

Competitive advantage shifts in favor of data and algorithms fueling algorithmic business.



3

The rise of **innovation ecosystems** with joint risk taking, and value creation among quickly engaging and disengaging partners.



5.

Innovation and experimentation require a larger share of resources, with fit-for-purpose funding mechanisms and governance.



9

Convergence of Information Technology (IT) and Operational Technology (OT) in the enterprise.

Shift 1 - Agility and Speed



Ways of Working

Agility and speed becomes the new value proposition. Organisations learn and adapt by experimenting (Agile, DevOps, Lean startup).

- Basic agile (few scrum teams)
- Scaling to enterprise agile
- Extending to DevOps
- Extending with Lean Startup

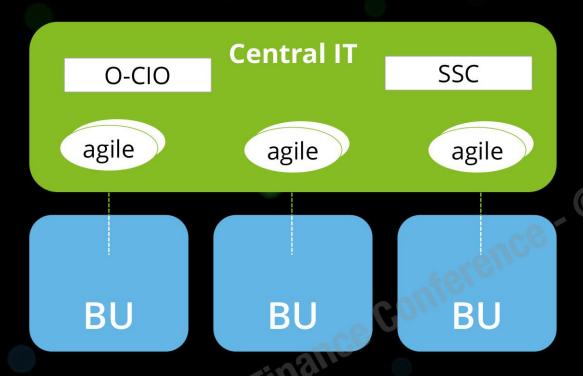
Shift 2 - Blurring Boundaries



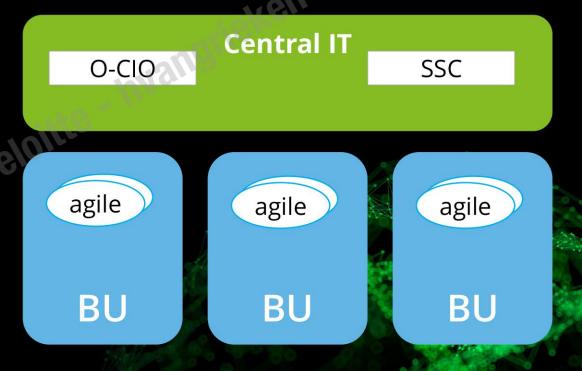
Ways of Working

Blurring boundaries between business and IT. The distinction between 'IT jobs' and 'business jobs' fades, business-led IT increases and tech fluency is vital for all:

Technology is organised closer to / embedded in the business

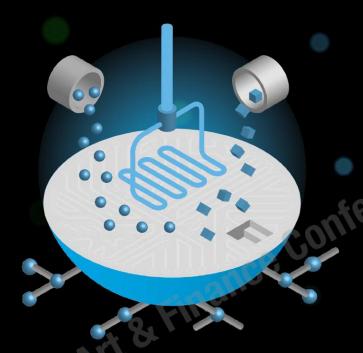


Option 1: Business aligned (dedicated) centralized Agile/DevOps teams



Option 2: Agile/DevOps teams located in and under control of the Business Unit

Shift 3 - Partners and Ecosystems



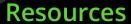
Ways of Working

New ways of **connecting to external partners**, forming dynamic
innovation ecosystems and
platforms, focused on joint risk
taking and value creation.

Shift 4 - Workforce Transition

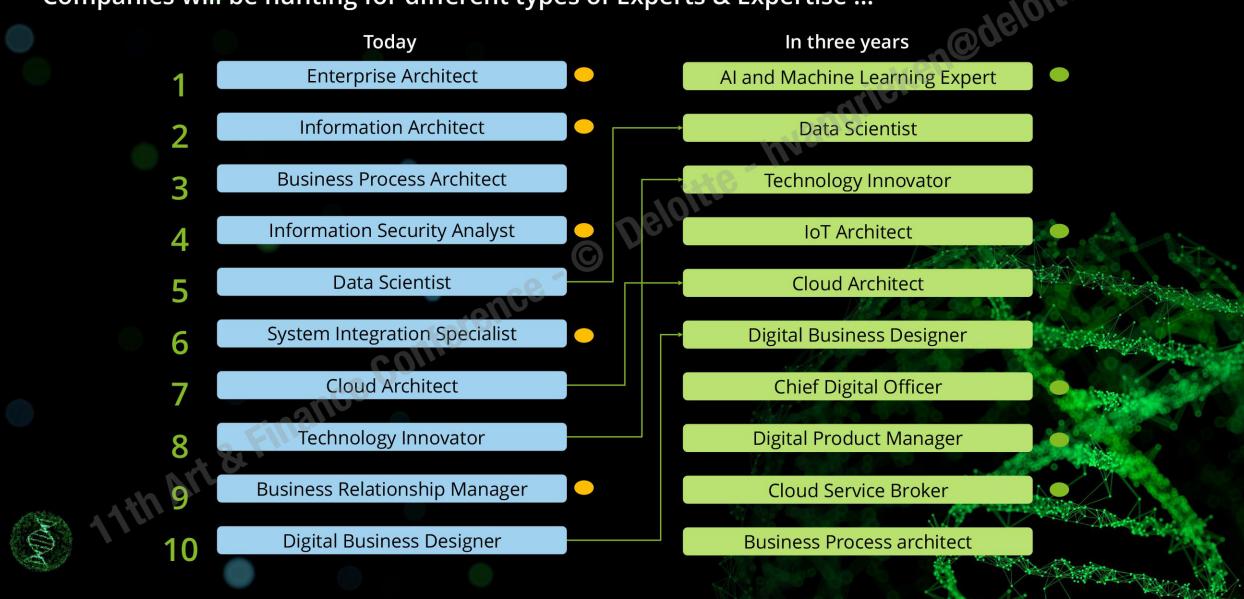


The workforce transitions as Digital, Data, Al and Robotics create new jobs with new skills while existing jobs with traditional skills disappear.

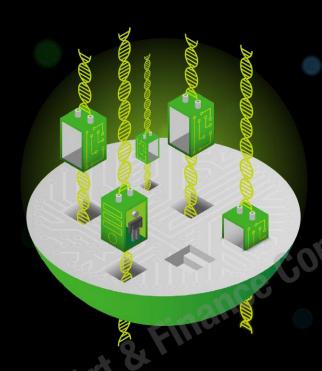




Companies will be hunting for different types of Experts & Expertise ...



Shift 5 - Digital DNA



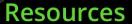
Resources

Digital DNA becomes deeply embedded within the entire organisation, with the vision, values, culture and leadership fit for a digital leader.

Shift 6 - Funding and Governance



Innovation and experimentation requires an increasing share of resources (budget. talent) with fit-for-purpose funding mechanisms and governance.

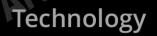




Shift 7 - Cloud Delivery Models and Automated Operations



Cloud becomes the dominant IT delivery model. IT Processes become highly **automated**, further driving out manual work from Operations.

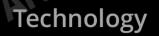




Shift 8 - Algorithmic Business



The center of gravity of competitive advantage shifts in favour of **(big) data and algorithms** fuelling algorithmic business, also in IT itself.





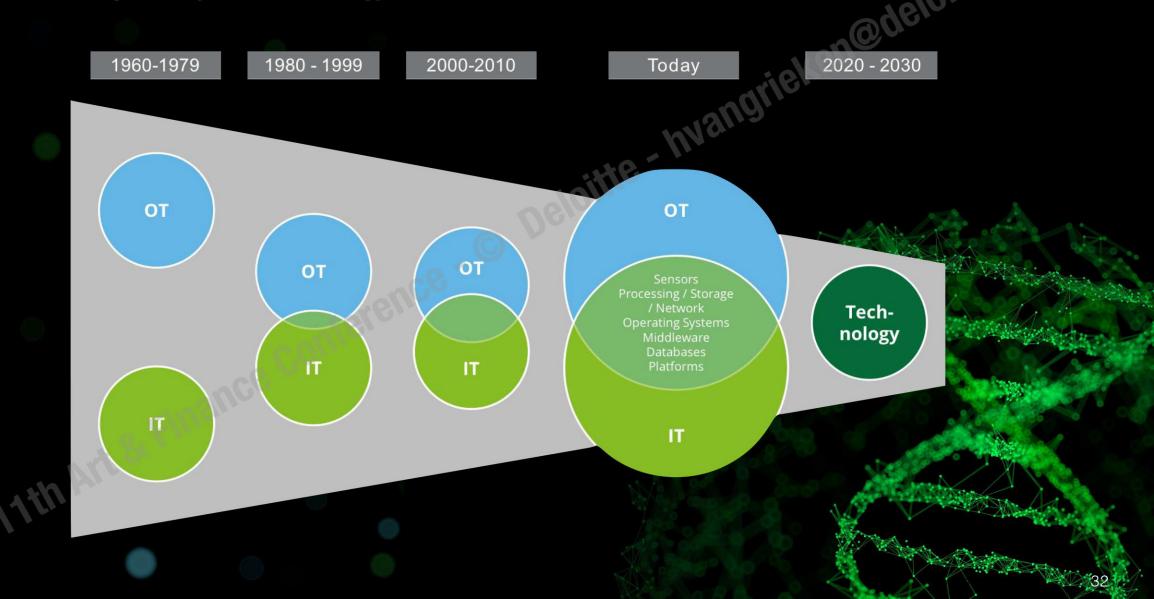
Shift 9 - Convergence of IT and OT



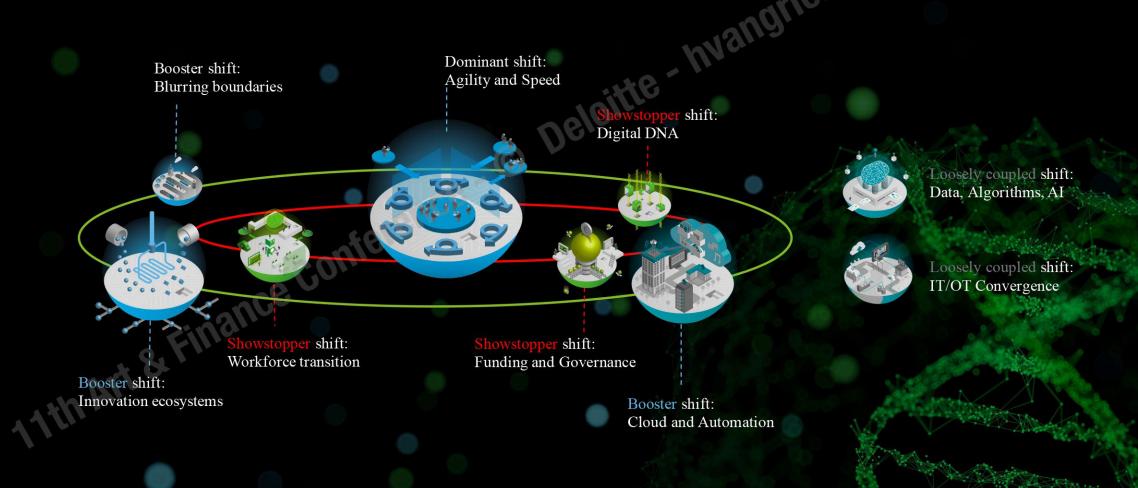
Technology

Convergence of two worlds that were separated for decades: Information Technology (IT) and Operational Technology (OT).

IT and OT merge into just 'Technology'



The value of this Framework is not in the individual Shifts. It is in their Interdependencies ...



Here's a Example on how these Shifts might interlink in a specific company ...

1.

Agility and speed become the new norm. Organizations learn and adapt by experimenting and fast deployment.

8.

Competitive advantage shifts in favor of data and algorithms fueling algorithmic business.

7.

Cloud becomes the dominant IT delivery model, with highly automated IT processes.

3

The rise of innovation ecosystems with joint risk taking, and value creation among quickly engaging and disengaging partners.

9.

Information technology (IT) and operational technology (OT) converge.

Booster Shift(-s)

2.

The boundaries between business and IT blur, business-led IT increases, and tech fluency is vital for all.

4

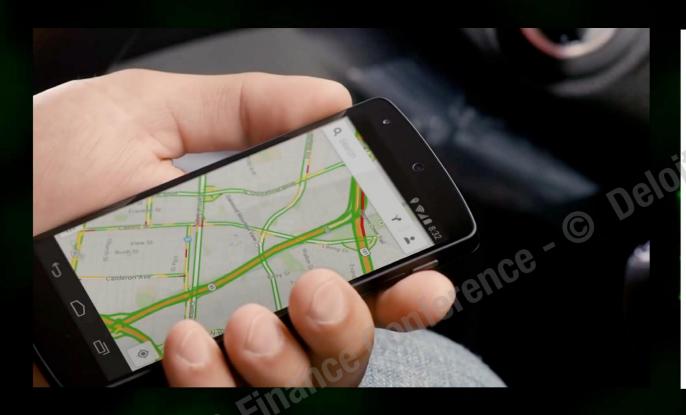
The workforce transitions as digital, data, AI, and robotics create new jobs and cause existing jobs to disappear.

6. Innovation & experimentation require a larger share of resources, with fit-for-purpose funding mechanisms and governance.

Showstopper Shift(-s)

Dominant Shift(-s)

Here's a recent (somewhat personal) example from another industry involving a "Platform-Play" ...





PRESS RELEASE September 18, 2018

> Renault-Nissan-Mitsubishi and google join forces on nextgeneration infotainment

> World's leading automotive Alliance signs a global multiyear agreement to partner with Google to equip Renault, Nissan and Mitsubishi vehicles with intelligent infotainment systems

- The Alliance will utilise **Android**, world's most popular operating system, to offer customers a new array of services including Google Maps, the Google Assistant and the Google Play Store
- These services will be combined with Alliance Intelligent Cloud based remote software upgrades and vehicle diagnostics

Dominant Shift(-s)



Booster Shift(-s)

1.

Agility and speed become the new norm. Organizations learn and adapt by experimenting and fast deployment.

8.

Competitive advantage shifts in favor of data and algorithms fueling algorithmic business.

ALLIANCE INTELLIGENT CLOUD

Deloitte "hvangrie







7

Cloud becomes the dominant IT delivery model, with highly automated IT processes.

3.

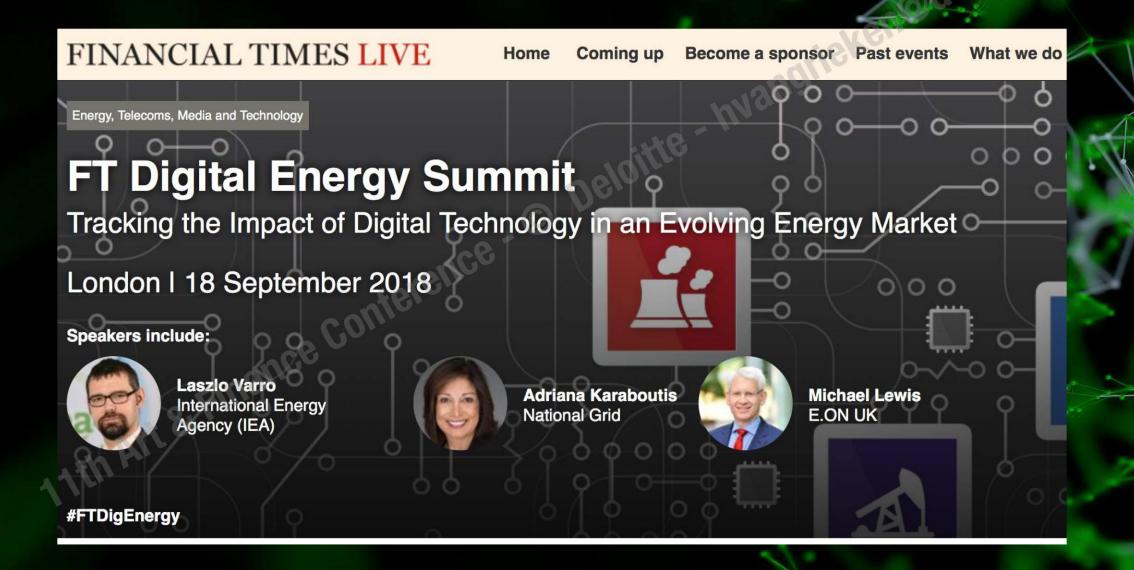
The rise of innovation ecosystems with joint risk taking, and value creation among quickly engaging and disengaging partners.

9.

Information technology (IT) and operational technology (OT) converge.

The Alliance Intelligent Cloud will provide a secure, connected foundation for next-generation infotainment systems, facilitating over-the-air software upgrades and remote diagnostics

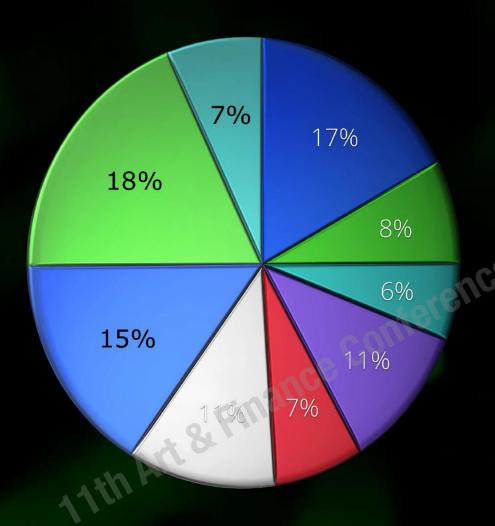
So does this Framework have relevance for your specific industry sector ...?



Q1: How Relevant are all of these "Nine Big Shifts" to your Organisation? Select one



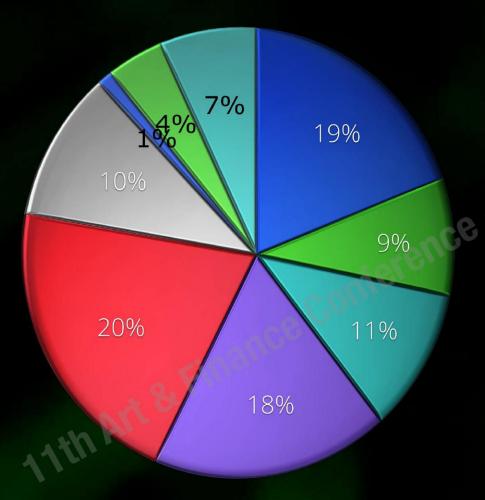
Q3: Which of the "Nine Big Shifts" are your Highest Priorities? Select three



- 1. Agile and Speed become the New Norm
 - 2. Boudaries between Business & IT are Blurring
- 3. The Rise of Innovation Ecosystems & Platforms
- 4. The Workforce needs to become "Future Proof"
- 5. The Digital DNA
- 6. Tech Governance and Budgetting are Changing
- 7. Shift to Cloud & Automation of Tech jobs
- 8. Shift to Data and Algorithmic Business
- 9. Convergence between OT and IT

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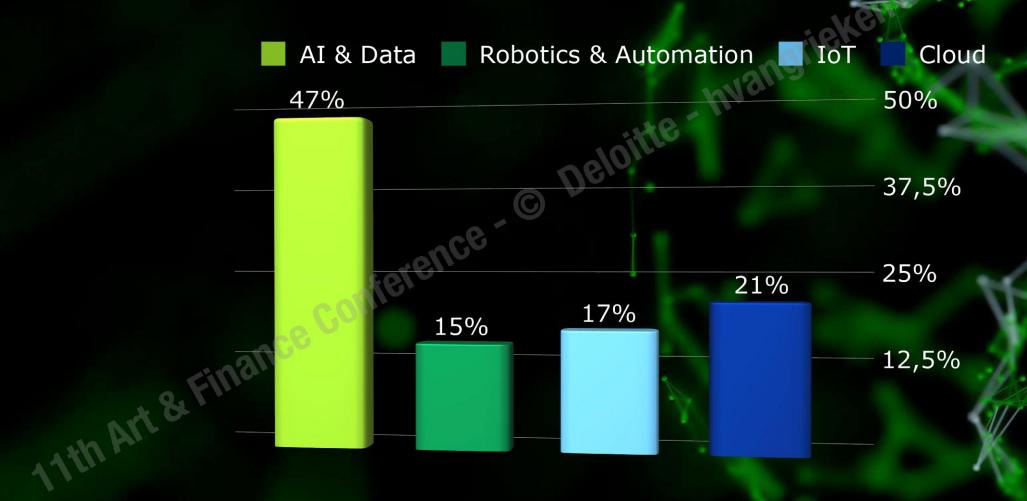
Q4: Which of the "Nine Big Shifts" are the most difficult to achieve for your organisation? Select three



- 1. Agile and Speed become the New Norm.
- 2. Boudaries between Business & IT are Blurring
- 3. The Rise of Innovation Ecosystems & Platforms
- 4. The Workforce needs to become "Future Proof"
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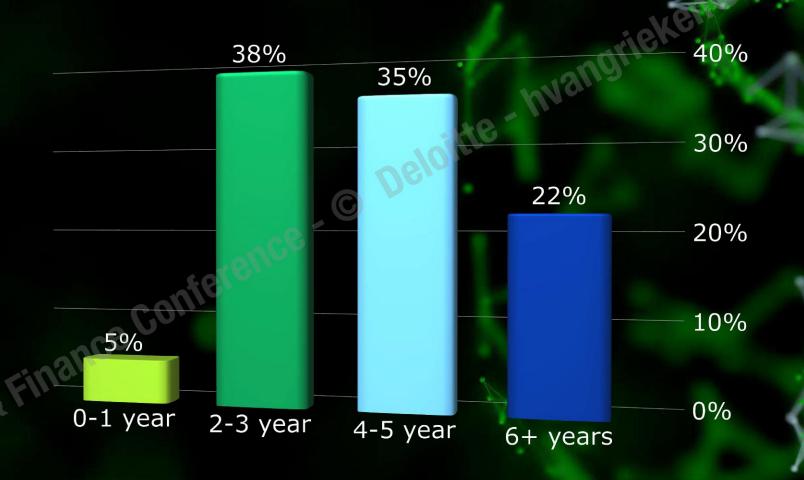
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Q5: Which Digital Technology is your Highest Investment Priority? Select one



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Q6: What is the Timeline of your Digital Transformation? Select one



One thing is for sure: Platforms will be a crucial part of your Digital Future ...



The place of technology in the Art & Finance space

Pierre Naquin

Founder and CEO AMA (Art Media Agency)



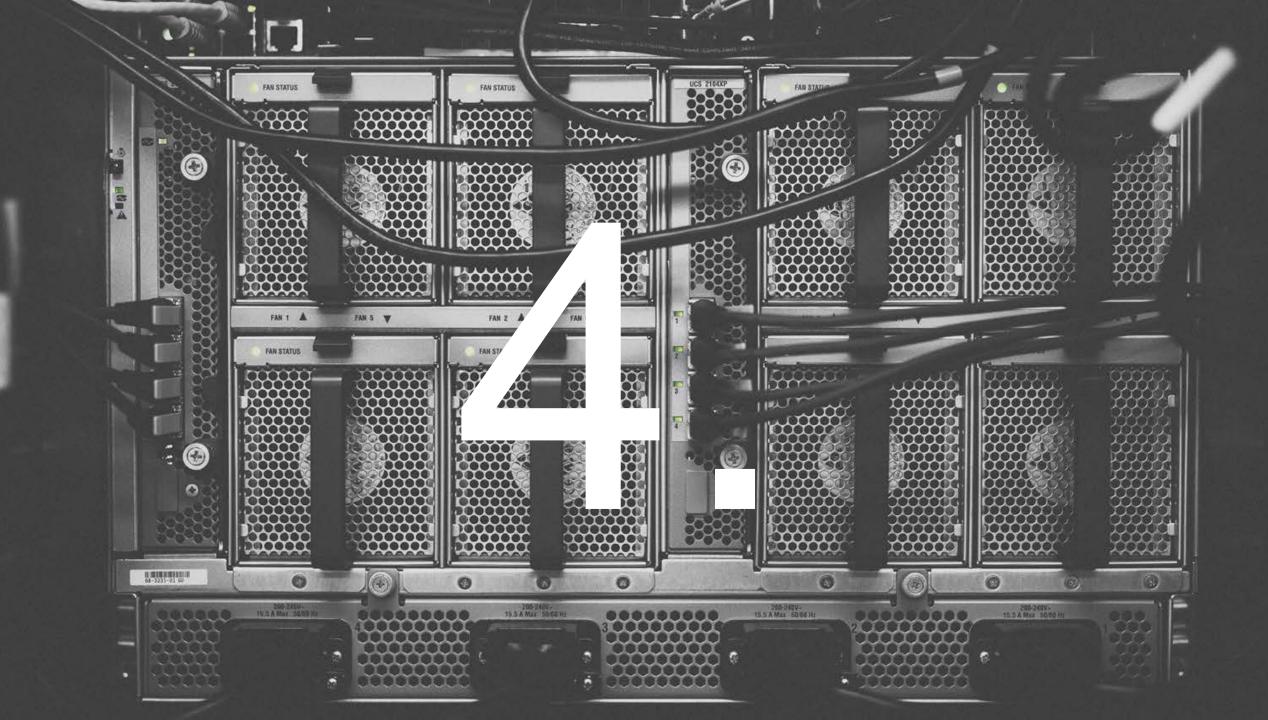
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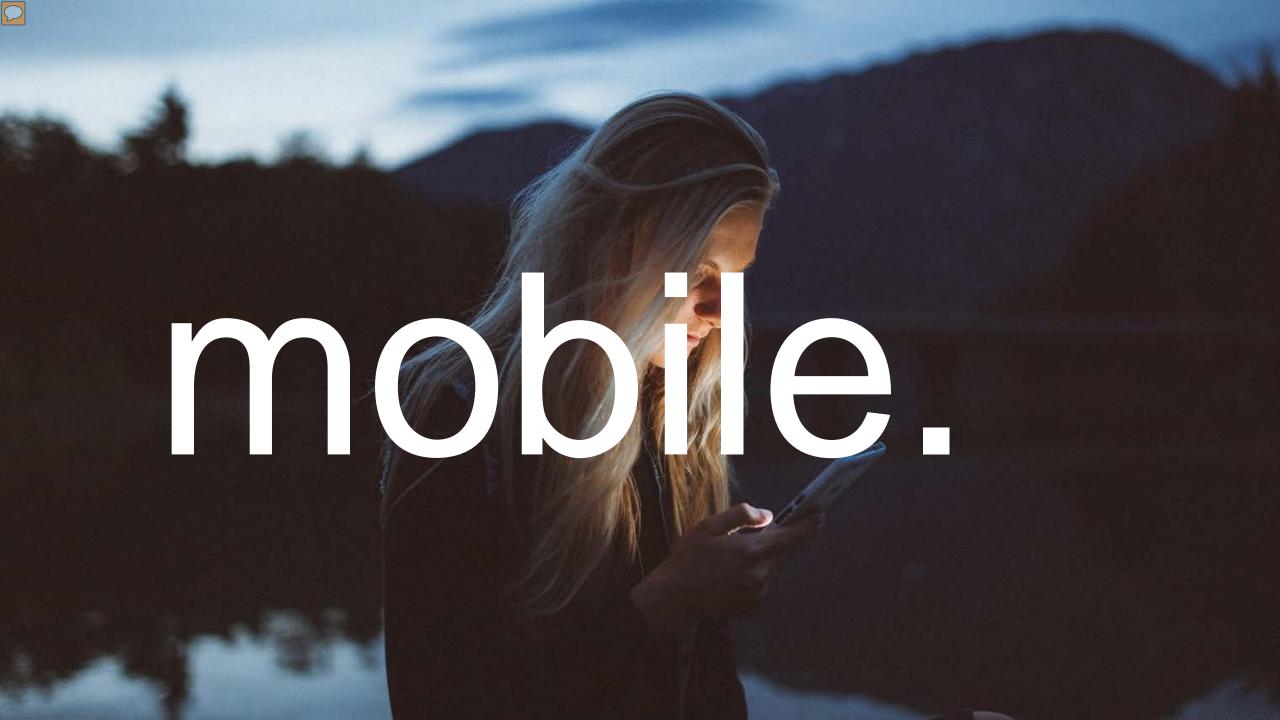




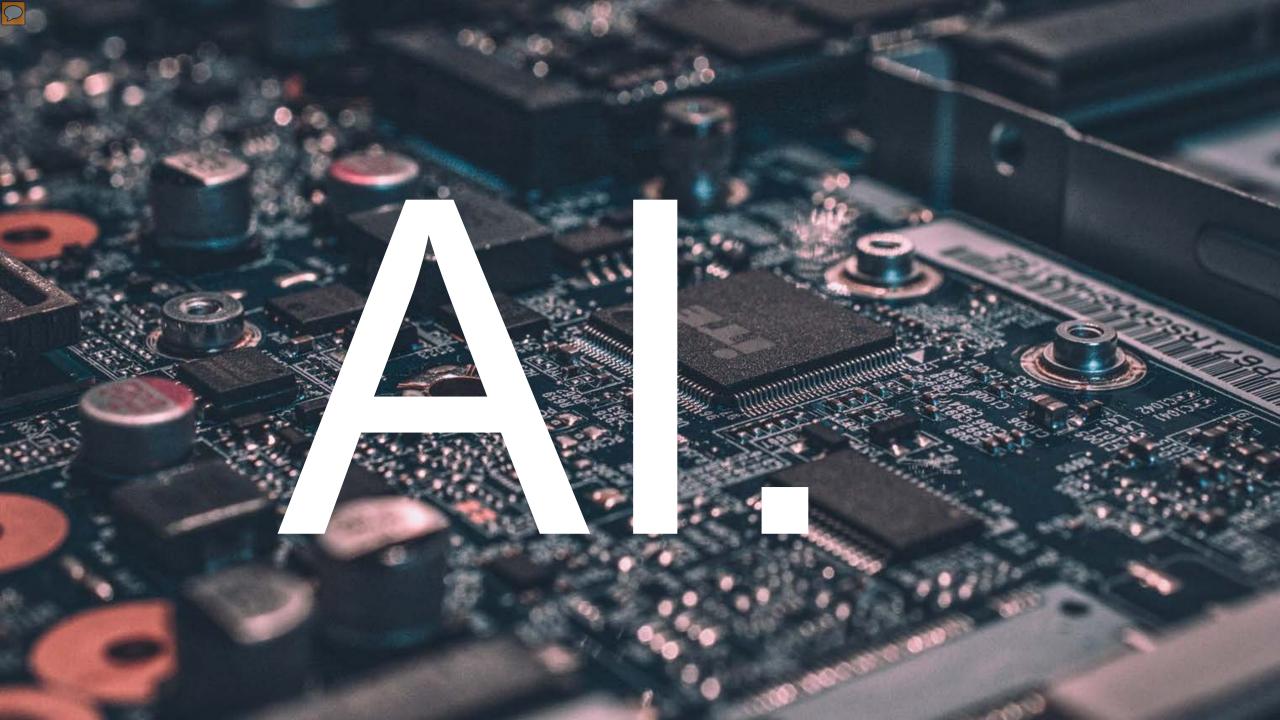


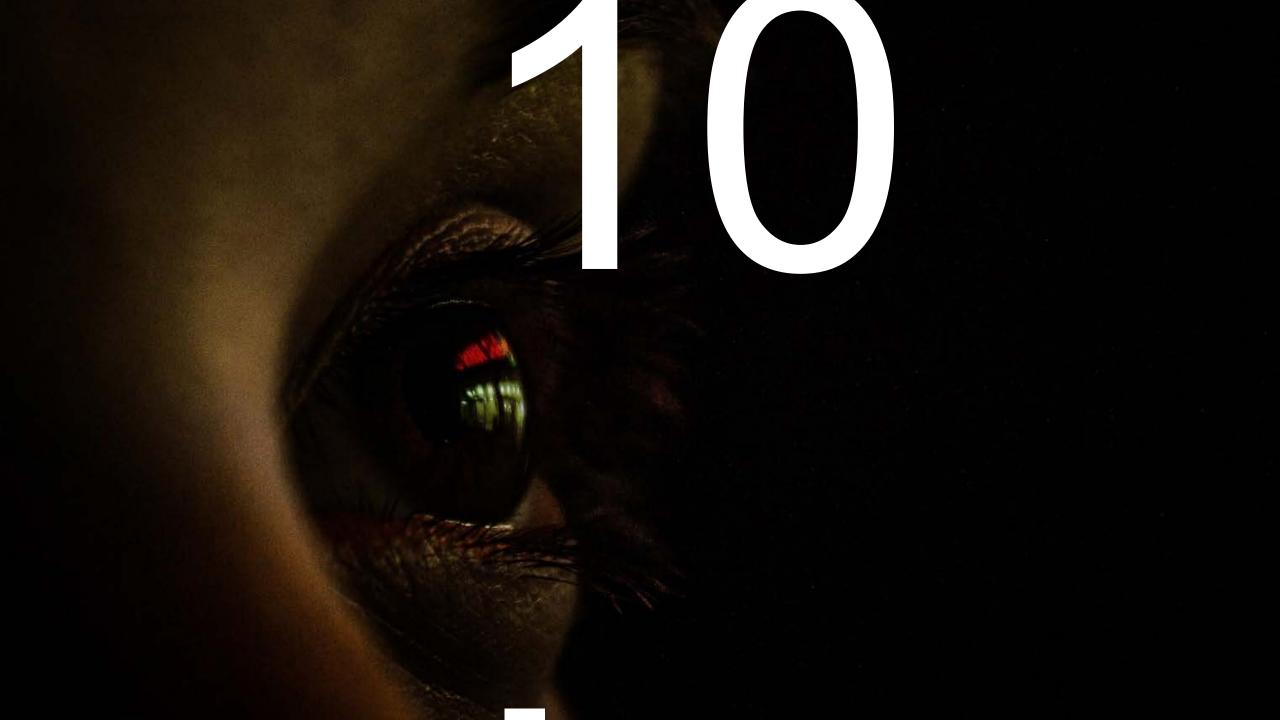




























The challenges to deploy blockchain in the art market to allow fractional investment in artworks

Moderator:

Frédéric de Senarclens

Founder, ArtMarketGuru



The challenges to deploy blockchain in the art market to allow fractional investment in artworks

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Frédéric de Senarclens, Founder, ArtMarketGuru

Panelists:

Dino Lewkowicz, CEO, 4ARTechnologies Frédéric Laffy, Co-founder & CEO, Danae HI

Niccolò Filippo Veneri Savoia, Founder, CEO, Investor, Looklateral

Lukasz Radawiec, Chief Strategist Officer, ArtWallet

David Dehaeck, Co-founder & CEO, artfintech.one



Blockchain Allowing Art Investment?

ART INVESTMENT

- High-risk investment
- Illiquid
- Opaque
- Unregulated
- High transactions cost
- · and Erratic public taste

MAIN CHALLENGES

- Lack of trust due to lack of transparency and regulation
- Illiquidity
- Cost of doing business

BLOCKCHAIN - THE IDEAL SOLUTION?

Can blockchain technology allow for a more efficient way to share the ownership of an artwork? Could blockchain technology reduce the cost of managing an art asset? Could it increase trust between separate parties?

Increased liquidity

Offering an opportunity for collectors, museums and dealers to «cash» in their collection

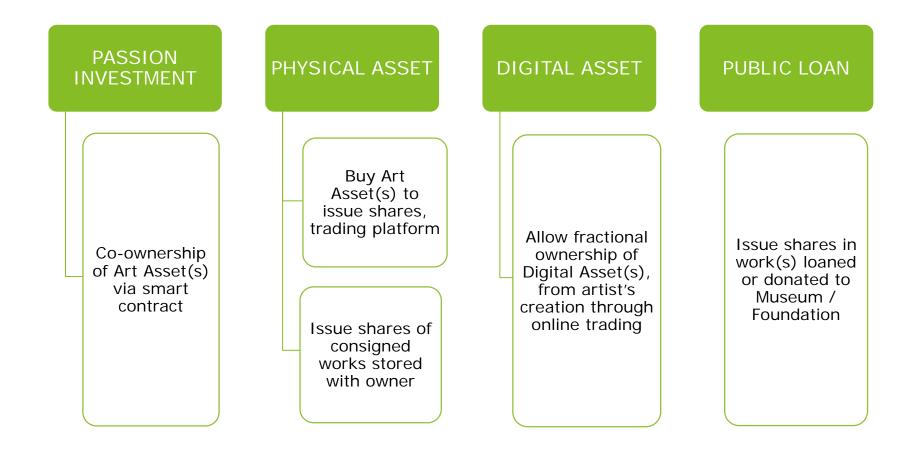
Heightened accessibility

Creating a larger community of investors by issuing shares for a single artwork or group of artworks

Further transparency

Increased trust between parties, creating a closed investment community, with clearly defined roles

Start-ups Allowing Fractional Investment



Blockchain and Fractional Investment in Artworks A Short History

1904

La Peau de L'Ours (Bearskin) – first art fund, established in Paris by Mr. André Level, limited to a few partners.

2010 - 2012

SplitArt, the first enterprise that aimed to create tradeable certificates based on artworks, ended in liquidation in 2012.

October 2017

ART – Maecenas launched the first **Art Crypocurrency**

December 2017

QoQa launched the PiQasso Project. 40,000 shares in work by Pablo Picasso purchased by 25,000 buyers within three days

August 2018

Maecenas sold stake in Andy Warhol's "14 Small Electric Chairs" – The auction raised US\$1.7m for 31.5% of the artwork at a valuation of US\$5.6m

October 2018

Christie's announced pilot collaboration with Artory to record sales and provenance data

Art Funds

Art Exchange Initiatives

Blockchain and Art Investment

1974

British Rail Pension Fund – The fund invested £40 million in art between 1974 and 1980. The pension fund, reported an aggregate return of 11.3% per year compounded from 1974 to 1999. Closed in 2000.

2011

French entrepreneur Pierre Naquin (A&F Markets) launched **Art Exchange**, a stock exchange for Art. Quickly ended up delisting paintings. Less than 20% of the paintings' shares had been purchased by investors

2011

Tianjin Exchange launched an art stocks exchange. It drawn so many investors that ended up pushing value of stocks by 1,700% in a day before it collapsed.

November 2017

Masterworks purchased Andy Warhol's «1 Colored Marilyn» for US\$ 1'815'000. To be tokenised in Q4 2018

January 2018

ArtMarketGuru first publication of «How to Evaluate The Risk of Blockchain in the Art Market»

July 2018

Christie's to organise their first Art+Tech Summit

September 2018

ART is quoted at US\$0.03 for a total market value of US\$1.5 million, compared to a high of US\$2.23 on 11 January 2018.

Future (tbc)

Masterworks to sell works by Andy Warhol and Claude Money

Challenges and Questions

DESIRE FOR FACTIONAL INVESTMENT IN ART

- Most blockchain ventures have been initiated by people with no art background. Are you responding to a need felt by art industry leaders, or are you applying a technology to an industry?
- According to Deloitte, "the overall Art Fund market in the first half of 2017 is conservatively estimated to be USD 834 million, down from USD 1.03 billion in 2016 and 1.2 billion in 2015." How big is the market for artwork tokenisation?

NEED OF BLOCKCHAIN TECHNOLOGY?

• Why do you need blockchain to fractionalise an art asset? A trusted centralised application might do it as well without blockchain.

NEED OF CRYPTOCURRENCIES?

• In the last 12 months, we have seen the rise and fall of many Cryptocurrencies. Why do you need a crypto coin to implement your business model?

Challenges and Questions

RISK OF MANIPULATION?

- Art exchange platforms may create "pyramid" scenarios in which marketplaces solicit more investors to retain
 past investors and to distribute expected returns to departing investors. Is there a risk of creating Ponzi schemes?
- How to ensure market supervision to avoid price manipulation?

LIQUIDITY

- How will you manage volatility and price inflation? How will you create liquidity? Is there room for two or more marketplaces or will the winner take it all?
- Experts struggle around the issue of valuation when offering works for sale. How would you propose to solve this
 issue?

SECURITY

- Hackers develop malware specifically designed to steal funds from Blockchain "wallets". Litecoin creator Charlie Lee went so far as to call Ethereum a "hackers' paradise". Shall we be concerned about security?
- How to guarantee the exact matching between a physical object and the registered information on the blockchain?

LONG-TERM PERSPECTIVE

Is Fractional Investment in Artwork(s) there for the long run?

Art, Law and Technology: what are the main challenges?

Moderator:

Giuseppe Calabi Senior Partner, CBM & Partners



Montieth Illingworth

CEO and Managing Partner, Montieth & Company

Abby Brindley

Associate, Art Law, Mishcon de Reya

Dr. Nicolas Galley

Director of Studies, Executive Master in Art Market Studies, University of Zurich

Emmanuelle Ragot

Avocat à la Cour, Intellectual Property, Data Protection & Technologies Partner and Head of Wildgen 4 Art, Wildgen S.A.

Antoine Verdon,

Co-founder and CEO, BlockFactory AG

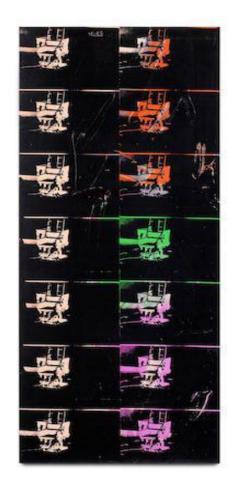
Moderator: **Giuseppe Calabi** | Senior Partner, CBM & Partners



25 July 2018

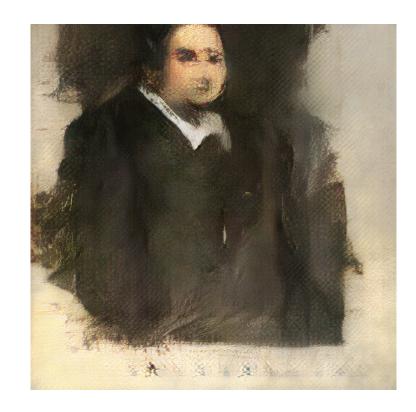
Andy Warhol (1928-1987) 14 Small Electric Chairs (1980), listed on Maecenas' blockchain platform and made available for purchase in auction on the 25th of July 2018

Buyers buy digital certificates on blockchain representing fractional ownership of the work and pay with cryptocurrencies



23-25 October 2018

Christie's, New York, Prints & Multiples



Portrait of Edmond Belamy, 2018, created by GAN (Generative Adversarial Network)

$$\min_{G} \max_{D} \mathbb{E}_{x}[\log(D(x))] + \mathbb{E}_{z}[\log(1 - D(G(z)))]$$

Image © Obvious

14 November 2018

Christie's, New York

An American Place | The Barney A. Ebsworth Collection Day Sale: the first auction sale to be recorded in a blockchain database managed by Artory



Edward Hopper, *Chop Suey* (1929), 81 x 96 cm Christie's Images Ltd. 2018

1. Art Market 2.0

How block chain technologies could be used to change the structure and the governance of the art market (sale methods, record of provenance and transparency of ownership)?

- Digital artworks: from massive reproduction to digital scarcity
- Physical artworks: how to ensure authenticity?

2. Blockchain and GDPR in the Art Market

- Immutability vs. right to be forgotten
- Cybersecurity
- Cloud and jurisdiction

3. Online only sales: is the art market really going digital?

Directive 2011/83/EU

- Public vs private auctions
- Right of cancellation and artwork reputation

4. Alternative investment schemes and offering of fractional ownership shares on digital marketplace: what is the optimal level of regulation?

Directive 2011/61/EU

- Alternative investment fund
- How to prevent Ponzi schemes?

Risk management: how technology can support trust in the art market

Moderator:

Anders PettersonFounder & Managing Director, ArtTactic



Maxime Heckel

Director, Strategy & Operations, Deloitte Luxembourg

Bagrat Bayburtian

Managing Director, Transactions and Business Analytics LLP, Deloitte US

Emmanuel Moyrand

Co-founder & President, Monuma

Calogero Scibetta

Head of Business Development, Everledger

Andrea Concas

Founder & CEO, ArtRights

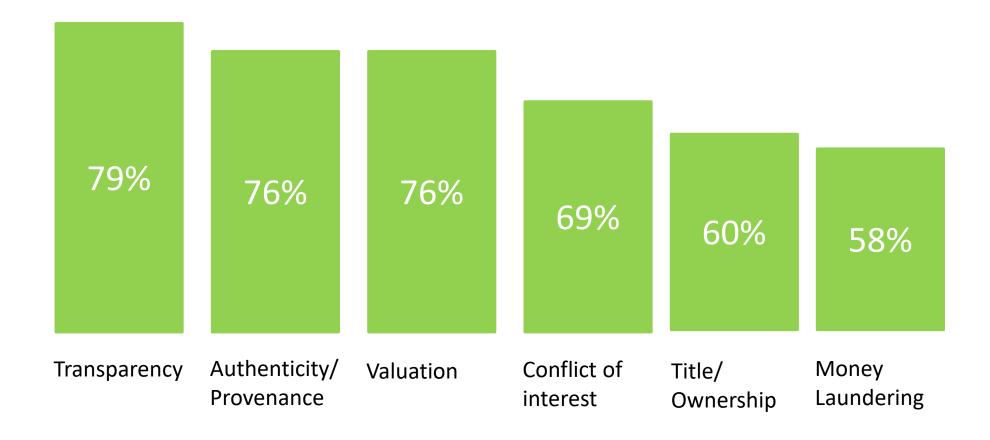
Simon Hornby

President, Crozier Fine Arts

Moderator: Anders Petterson | Founder & Managing Director, ArtTactic

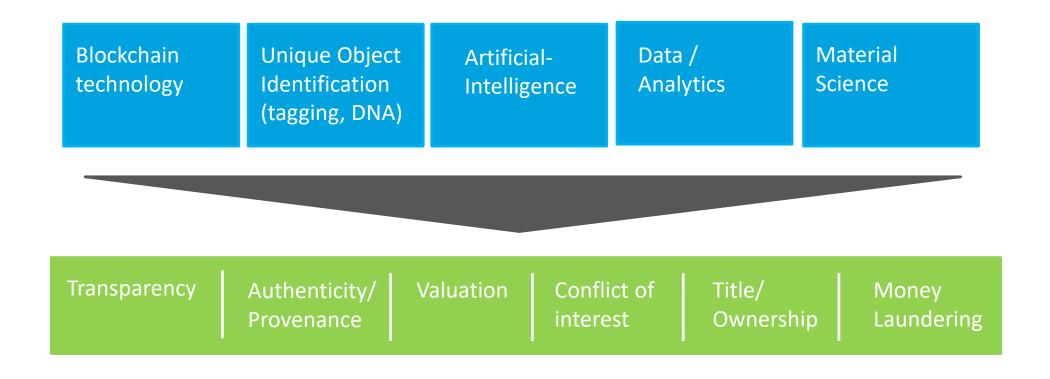


What are the biggest threats to the reputation/ trust in the art market?



Source: Deloitte Art & Finance Report 2017 based on average (%) of wealth managers, arts professionals and collectors.

How can technology increase trust in the art market?



Regulatory challenges

Maxime Heckel

Director, Strategy & Operations, Deloitte Luxembourg



Risk management: how technology can support trust in the art market Upcoming regulatory challenges



EU Directive

Last spring, the European
Commission has published
its fifth anti-money
laundering Directive (AMLD
V). Article 1 includes Art
work traders in the
scope of obliged entities.



What's in it?

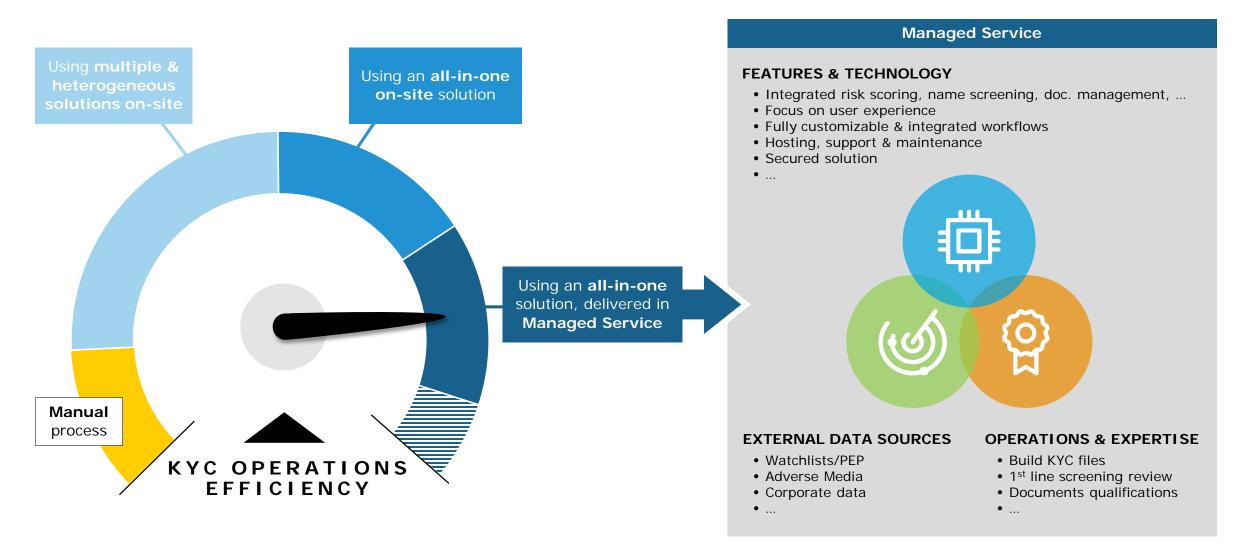
Although the details of its transposition are still uncertain in many member states, what we know is that pre-existing anti-money laundering rules will apply to the art market.



Concretely?

Such rules, among others, primarily include the obligation to perform Know-Your-Customer (KYC) activities on counterparties, i.e. onboarding & ongoing monitoring.

Risk management: how technology can support trust in the art market What about KYC solutions?



Risk management: how technology can support trust in the art market Key takeaways



Focus on counterparty data

→ quality/exhaustiveness is key.



Ask yourself the right questions about your needs

→ expected volume of counterparties vs. their related level of complexity? Cost vs. risk management? Operational constraints?



Leverage top-notch solutions

→ KYC solution ecosystem is complex to read but "all-in-one" solutions are generally cheaper and more efficient than a "build" approach.



Where applicable/possible, outsource some of your KYC activities to 3rd parties so that you can keep the focus on your business.



Leverage experience of industry experts

→ those that have already been through the burden are often in the best position to provide the right course of action.

Art360 Overview

Bagrat Bayburtian

Managing Director Deloitte US



Art360 Overview

In the rapidly transforming global art market, with whom—and under what circumstances—you trade, can be as crucial to business success or failure as what you trade.



Art360 is designed to help users identify and illuminate potential business risks associated with specific art transactions and holdings



Art360 identifies, correlates, and scores ~100 data-points—called *Potential Risk Indicators* (PRIs)*—about artworks, counterparties, and operations

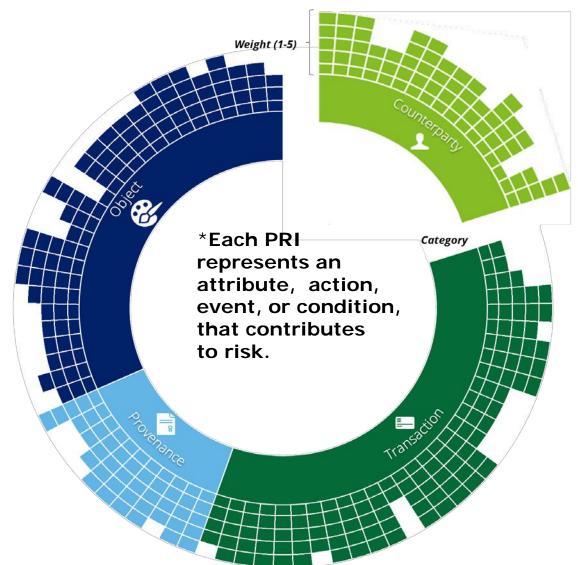




Example Artwork PRIs

- Object physicality:
 - Maker
 - Material
 - Condition
- Object provenance:
 - Chain of custody
 - Geopolitical context
 - Legality

Deloitte does not authenticate, value, or appraise artwork





Example Counterparty PRIs

- Identification
- Beneficial ownership
- Behavior
- Politically Exposed Person



Example Operational PRIs

73

- Payment method
- Transaction location

The Art360 dashboard provides a situational overview, as well as ready access to underlying data about artworks, counterparties, and operations



The Art360 dashboard provides a situational overview, as well as ready access to underlying data about artworks, counterparties, and operations



Art360 provides contextualized and actionable information regarding counterparties, business operations, and artwork – so that users can make better-informed decisions about art transactions and holdings.



Big Data & Artificial Intelligence: how to improve Analytics, Financial Decision & Experience in the art market

Moderator:

Henry Blundell CEO, MasterArts



Sophie Neuendorf

VP, artnet

Olivier Zephir

Ph.D. Business Advisor, Technoport SA

Catherine D. Henry

SVP Branding, Strategy & Innovation, Palpable Media

Paul Lindahl

CEO and Director, Arius Technology

Zohar Elhanani

CEO, MutualArt

Moderator: **Henry Blundell** | CEO, MasterArts



Investment in ArtTech companies

Moderator:

Adriano Picinati di Torcello Director, Advisory & Consulting Global Art & Finance Coordinator, Deloitte Luxembourg



Alain Rodermann

Founder and Managing Partner, Expon Capital (Digital Tech Fund)

Reine-Marie Fontaine Taittinger

Co-founder, ARTEÏA

Tom Toumazis

Executive Chairman, TAGSMART

Nasir Zubairi

CEO, The LHoFT

Maria Chiara Amadori

Senior Transaction & Relationship Officer, European Investment Fund

Moderator: Adriano Picinati di Torcello | Director, Advisory & Consulting Global Art & Finance Coordinator, Deloitte Luxembourg



Art technology (ArtTech) could be defined as the new technology and innovation that aims to compete with and/or complement traditional art business methods in the delivery of art services. ArtTech is a new industry that uses technology to improve activities in the Art sector. The use of smartphones for mobile art business, or artificial intelligence to improve art services, or <u>cryptocurrency</u> are examples of technologies aiming to make art services more accessible, trusted, and more enjoyable to the general public. Art technology companies encompass both startups and established art or technology companies such as the GAFA, which are trying to replace or enhance the usage of art services provided by existing art business companies. Many existing Art institutions are implementing ArtTech solutions and technologies in order to improve and further develop their services and gain competitive edge

Maria Chiara Amadori

EIF, Cultural and Creative Sectors Guarantee Facility



This information is given in summary form and does not purport to be complete.

Cultural and Creative Sectors Guarantee Facility What it is and what is covers

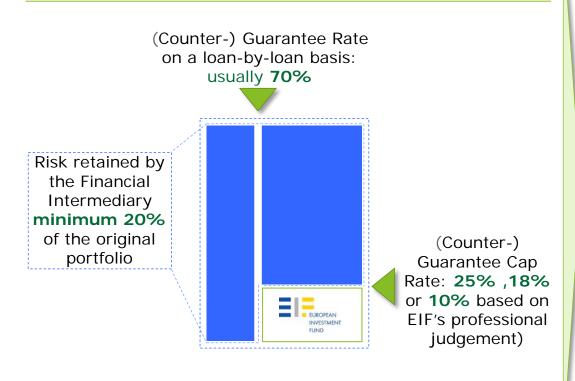
- New action from the European Commission as part of the Creative Europe programme
- EC facility enhancing access to finance for SMEs in CCS through:
 - portfolio credit risk transfer via (counter-) guarantees and
 - provision of Capacity Building i.e. technical assistance, knowledge transfer and networking measures in the CCS field to financial intermediaries
- Call launched in July 2016 with an estimated budget of EUR 180m (2016 2020)
- CCS GF provides free-of-charge capped portfolio (counter-) guarantees for partial credit risk coverage
- CCS GF is implemented through financial intermediaries like guarantee schemes and banks
- Thanks to CCS GF, financial intermediaries would increase their lending volumes to CCS SMEs* and Small Public Enterprises** active in:
 - Audio-visual (film, television, video games, and multimedia) and radio
 - Cultural heritage, archives, libraries and museums
 - Artistic crafts
 - Design
 - Festivals, music
 - Literature (books and press) and publishing
 - Architecture
 - Performing arts

^{*} As per the EU definition

^{**} Entities that do not fall under the scope of SME definition exclusively due to detention of shares of the SME by public bodies

Cultural and Creative Sectors Guarantee Facility How it works

Financial intermediary's portfolio of CCS related transactions to SMEs



CCS GF's capped (counter-) guarantee proposed features

- Structured in the form of guarantees or counterguarantees
- Free-of-charge (counter-) guarantee
- (Counter-) Guarantee rate typically set at max. 70%
- (Counter-) Guarantee cap rate: 10%,18% or 25%
- (Counter-) Guarantee term: 10 years
- Pari-passu ranking
- State aid consistent
- Free-of-charge customised capacity building services
- EIB Global Loan could be used to partially fund the portfolio (optional, subject to EIB approval)

Cultural and Creative Sectors Guarantee Facility Eligible entities and Debt Financing

SMEs* and Small Public Enterprises that:**

- Have a CCS NACE code; or
- Intend to develop a CCS project with the debt financing; or
- In the last 24 months before the transaction approval:
 - Have been operating in the field of CCS; or
 - Have received debt financing for a CCS project by European or national CCS institution/association; or
 - Have been awarded a CCS prize; or
 - Have filed copyrights, trademarks, distribution rights, etc. in the CCS field; or
 - Have benefitted of tax credit/exemption related to development of intellectual property rights or CCS activities

Debt Financing where

- Max loan amount:
 - EUR 2m
- Min Maturity:
 - 12 months
- Purpose:
 - Investment
 - Business Transfer
 - Working Capital
- Max Collateral Requirements:
 - Assets used for the business activity
 - Personal guarantee from the owner(s)

^{*} As per the EU definition

^{**} Entities that do not fall under the scope of SME definition exclusively due to detention of shares of the SME by public bodies

Cultural and Creative Sectors Guarantee Facility Availability status

Agreements signed:

	Country	Intermediary	Start of AP	Exp. Debt Financing supported
<u> </u>	Spain	CERSA	01/01/2017	EUR 250m
	Romania	Libra Internet Bank	01/03/2017	EUR 10m
	France	Bpifrance	01/05/2017	EUR 30m
	France	IFCIC (2 agreements)	25/07/2017	EUR 111.4m
	Belgium	PMV	19/12/2017	EUR 15m
	Belgium	Start SA	19/12/2017	EUR 10m
	Czech Rep.	Komercni Banka	19/12/2017	EUR 25m
	Italy	CDP	28/03/2018	EUR 285.7m
	Poland	BGK	01/01/2019	EUR 126m



Closing speech

Technology in Art & Finance: an insurer perspective

Stéphane Flaquet CEO Europe, Hiscox



Hiscox at glance



- Leading European Art and Private Clients insurer
- Listed on the London Stock Exchange
- Headquartered in Bermuda
- 2,700 staff across 14 countries and 32 offices
- Origins go back to the Lloyd's market in 1901
- FY 2017 Gross written premiums of £2,549 m
- Average Combined ratio of 87.2%
- Average Return on equity of 15.4%



'Art is an integral part of the culture of Hiscox. We insure it, we own it and we encourage it'

Robert Hiscox

Hiscox move to Luxembourg



- New EU insurance company in response to Brexit
- At the centre of our European operation
- Pro-business environment
- Dedicated insurance regulator
- Logical presence for (Ultra) High Networth market
- Getting closer to wealth management sector
- Raise awareness on need to better protect assets
- Cross-border and domestic servicing capabilities



Our world is changing





Hiscox Online Art Trade Report



- \$4.2 bn market in 2017 (8% of total market), up 12%
- Fewer people buy art online but active buyers buy more frequently
- 75% of purchases are below \$5,000
- Online gallery sales help broaden collector base (international)
- Third party market place gain popularity
- Instagram is the preferred social media platform
- 40% of online art buyers are concerned about cybercrime
- 54% of platforms targeted by a cyberattack in the past 12 months
- Cryptocurrencies are the predicted entry point for blockchain



Longer term impact on digital transformation on the Art Market





Crowdfunding





Sharing economy



AI / Machine learning

Longer term impact on digital transformation on the Art Market



Uber, the world's largest taxi company, owns no vehicles.

Facebook, the world's most popular media owner, creates no content.

Alibaba, the most valuable retailer, has no inventory.

And Airbnb, the world's largest accommodation provider, owns no real estate.

What about Art and Culture?

Deloitte.

Thank you for your participation!

