

CFO Seminar

22 November 2017

Grant Thornton



CFO Seminar

IFRS 16 Leases

John Botha

Associate Director – Audit and
Assurance



What you need to know

Lessee accounting

- single recognition and measurement model
- recognise asset and corresponding liability for all leases (few exceptions exist)
- removing IAS17 subjectivity

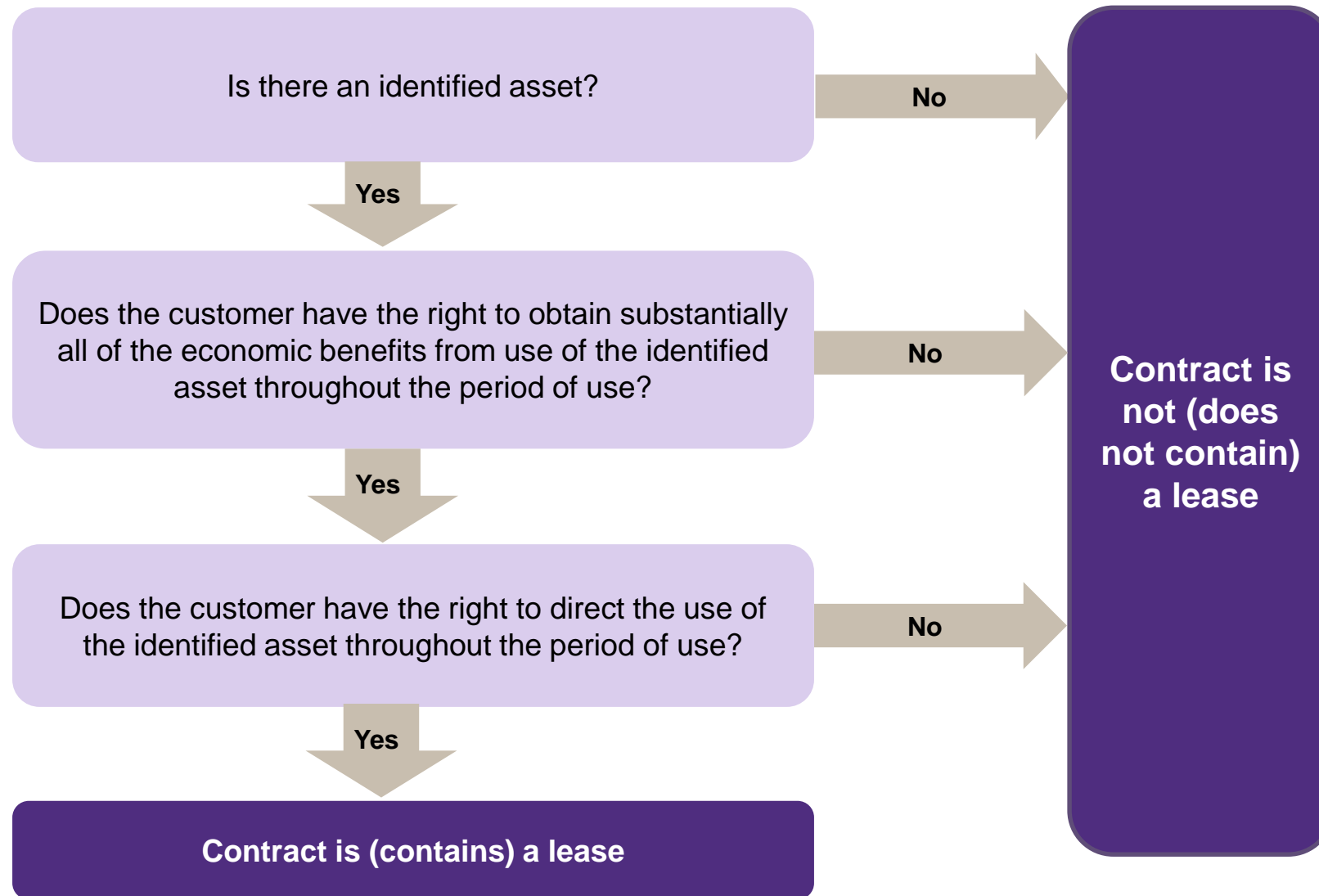
Lessor accounting

- essentially the same application of the current requirements under IAS 17
- more explicit treatment of sub-lease i.e. separate to head lease

Convergence and effective date

- issued January 2016
- effective from 1 January 2019
- significant amendments to FRS102 from 1 January 2022 at earliest

Flowchart: the three key evaluations



Applying the new definition involves three key evaluations (continued)

Component of definition	Guidance
Is there an identified asset?	<ul style="list-style-type: none"> • an asset is 'identified' if it is specified in the contract. • an asset is not identified if the supplier has a substantive right to substitute another asset. • a physically distinct portion of an asset can be an identified asset but a portion of an asset's capacity cannot.
Does the customer have the right to obtain substantially all of the economic benefits from use of the identified asset throughout the period of use?	<ul style="list-style-type: none"> • considers direct and indirect benefits such as using, holding, or sub-leasing the asset. • considers only the economic benefits within the defined scope of a customer's rights to use an asset.
Does the customer have the right to direct the use of the identified asset throughout the period of use?	<ul style="list-style-type: none"> • normally present if the customer has the right to decide how and for what purpose the asset is used. • if relevant decisions about use of the asset are predetermined, the customer has control if it (i) has the right to operate the asset; or (ii) designed the asset in a way that predetermines its use.

Definition of a lease - Ship

- a car manufacturer enters into a contract with a shipping company to transport cars from Adelaide to Singapore
- the contract specifies a particular ship and the cars to be transported, which will require the full capacity of the ship
- the shipping company operates and maintains the ship and is responsible for the safe passage of the cars to Singapore
- the car manufacturer is not able to make changes (eg to the destination or nature of the cargo) once the contract has been signed.

Analysis

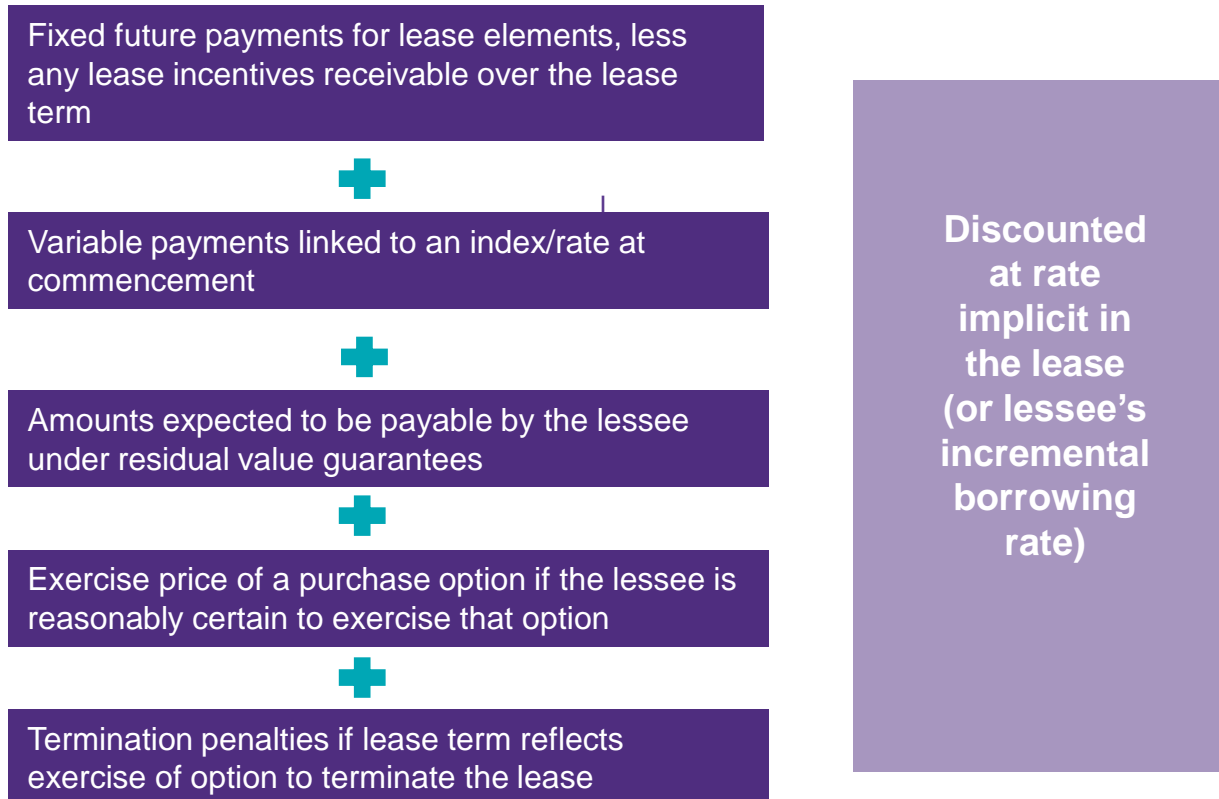
- the contract does **not** contain a lease
- after signing the contract the car manufacturer is not able to direct how and for what purpose the ship is used and does not therefore control the use of the asset
- the contract pre-determines how and for what purpose the ship will be used and the car manufacturer neither operates nor designed the ship.

IFRS 16 Lessee accounting

Balance sheet	
Recognition	All leases on balance sheet – Right of use asset & a lease liability
	Exemption small leases (\$5,000 typical threshold new)
	Exemption short term leases (less than 12 months) by class
Measurement	Lease liability on discounted basis
	Lease asset = lease liability
	Depreciation of lease assets – typically straight-line
Presentation	Lease liabilities (Per IAS 1, separate line item)
	Lease assets (PPE or own line item)
Statement of profit or loss	
Operating costs	Depreciation
Finance costs	Interest
Statement of cash flows	
Operating activities	Interest
Financing activities	Principal

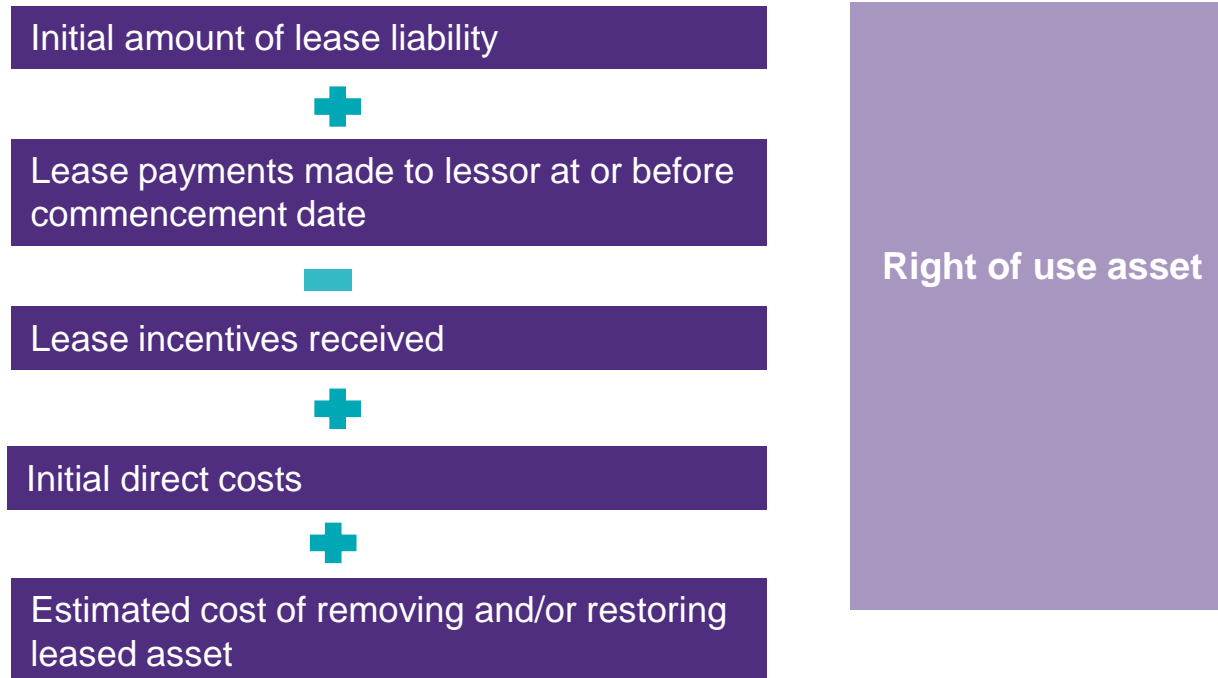
Applying the new lease accounting approach

Initial measurement of the lease liability



Applying the new lease accounting approach

Initial measurement of the right of use asset



Subsequent accounting for right-of-use asset and lease liability

- the right-of-use asset is accounted for similarly to a purchased asset
 - the right-of-use asset is depreciated
- lease liability is accounted for similarly to a financial liability
 - the lease liability is accounted for under the effective interest method
- the lease liability is re-measured when:
 1. the lease term is revised
 2. future lease payments based on an index or rate are revised
 3. the lease is modified by scope decrease (separate lease for increase scope)
 4. there is a change in the amounts expected to be paid under residual value guarantees

Example – Lessee accounting for a simple three-year lease

Fact pattern:

- on 1.1.20X1 a company enters into a three-year lease of an office premises.
- the rentals are CU10,000 payable at the end of each year.
- there are no services or other non-lease elements. No initial direct costs are incurred or incentives received
- the applicable discount rate is 5%

Analysis

- the initial measurement of the right-of-use asset and lease liability is CU27,232 **(W1)**
- **(W1)** $(10,000/1.05 + 10,000/1.05^2 + 10,000/1.05^3)$
- **(W2)** Annual depreciation = CU27,232/3 yrs. = 9,077
- **(W3)** Interest expense Yr1 = CU27,232 @ 5% = 1,362

The table below summarises the cash flows, balance sheet and profit and loss

Cash flow and P&L	1.1.20X1	20X1	20X2	20X3
	CU	CU	CU	CU
Lease payments	–	10,000	10,000	10,000
Depreciation expense (W2)	–	9,077	9,077	9,078
Interest expense (Yr1 W3)	–	1,362	930	476
Total expense	–	10,439	10,007	9,554

Balance sheet (CU)				
Right-of-use asset (Yr1 W1)	27,232	18,155	9,078	–
Lease liability (Yr1 W1)	27,232	18,594	9,524	–

Initial and subsequent accounting entries

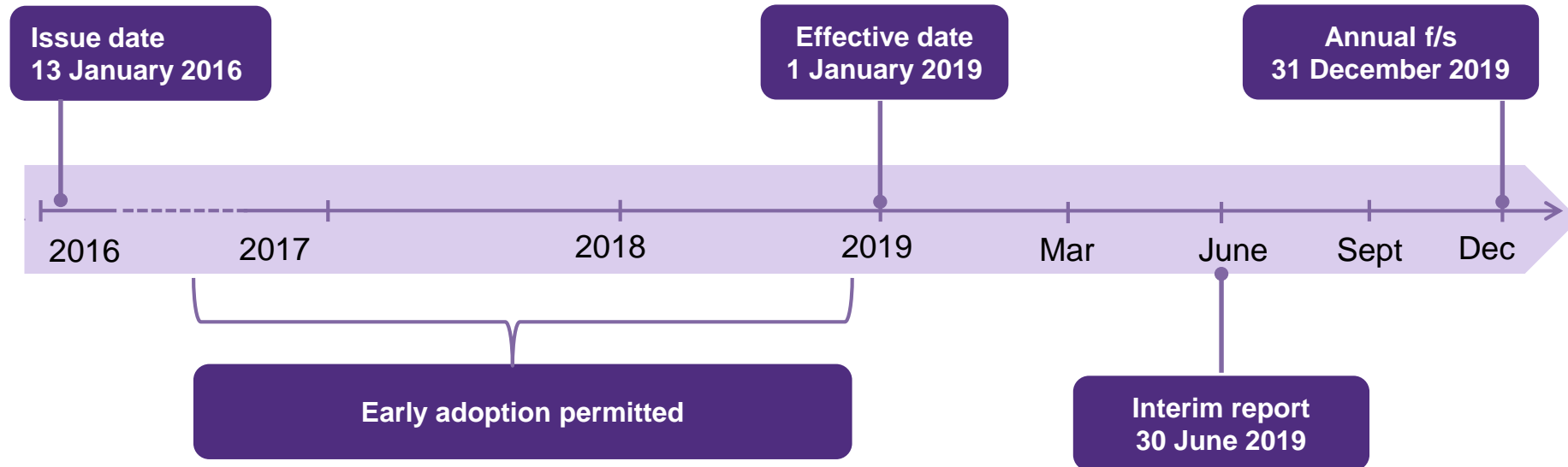
The accounting entries on initial recognition are:

	Debit (CU)	Credit (CU)
Right-of-use asset (W1)	27,232	
Lease liability (W1)		27,232

The subsequent accounting entries in Year 1 are:

	Debit (CU)	Credit (CU)
Depreciation expense (W2)	9,077	
Interest expense (W3)	1,362	
Lease liability	8,638	
Cash		10,000
Right-of-use asset		9,077

Effective date



Choice of transition:

- Full retrospective application
- Partial retrospective application

Appendix 1: Disclosure requirements (Lessees)

Disclosure Area	Summary of Requirement
Qualitative information about leases	<ul style="list-style-type: none"> • depreciation charge for right-of-use assets by class of underlying asset • interest expense on lease liabilities • expense relating to low-value and short-term leases • commitments for short-term leases • expense relating to variable lease payments not included in lease liabilities • income from subleasing • total cash outflow for leases • additions to right-of-use assets • gains or losses from sale and leaseback transactions • the carrying amount of right-of-use assets at the end of the reporting period by class of underlying asset • maturity analysis of lease liabilities • additional information about right-of-use assets that are investment property or are revalued under IAS 16
Additional qualitative and quantitative information	<ul style="list-style-type: none"> • nature of leasing activities • future cash outflows to which the lessee is potentially exposed that are not reflected in the lease liabilities, including exposure arising from: <ul style="list-style-type: none"> • variable lease payments • extension and termination options • residual value guarantees • leases not yet commenced • restrictions or covenants imposed by leases • sale and leaseback transactions

Appendix 1: Disclosures requirements (Lessors)

Disclosure Area	Summary of Requirement
Finance leases	<ul style="list-style-type: none"> • selling profit or loss • finance income on the net investment in the lease • income relating to variable lease payments not included in the measurement of the net investment in the lease • explanation of significant changes in net investment in the lease • maturity analysis of lease receivable
Operating leases	<ul style="list-style-type: none"> • lease income, separately disclosing income for variable lease payments that do not depend on an index or rate • as applicable for underlying asset, relevant disclosures in <ul style="list-style-type: none"> • IAS 16 for leases of property, plant and equipment, disaggregated by class • IAS 36 'Impairment', IAS 38, IAS 40 and IAS 41 • maturity analysis of lease payments
Other	<ul style="list-style-type: none"> • additional qualitative and quantitative information about leasing activities as necessary to meet disclosure objectives, including but not limited to: <ul style="list-style-type: none"> • nature of leasing activities • how the risk associated with any rights retained in the underlying asset is managed

ANY QUESTIONS?

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Gary Moffatt – Associate Director

FRS 105 – Micro entities



So what is FRS 105?

FRS 105 - explanation

- Applies to “Micro Entities”
- Applies to companies established under company law:
 - Not for sole traders, partnerships, charities or groups
- Must meet criteria:
 - Turnover < €700,000
 - Balance sheet total <€350,000 (total assets)
 - Employees < 10
- Must qualify for 2 out of 3
- Must qualify for 2 years in a row
- To be dis-qualified must not meet criteria for 2 years in a row

FRS105 – explanation continued

- Effective 9 June 2017 – Companies (Accounting) Act, 2017 (CAA 2017)
 - Applies to FRS105
 - Section 1A of FRS 102
- Applies for period on or after commencing 1 January 2017
- May also be backdated, in certain circumstances

What is different from FRS102

FRS105 – key differences

- Simplified reporting
- 28 sections (97 pages) v's 35 sections (over 200 pages)
- No need for:
 - Directors report
 - Statement of changes in cashflow
 - Statement of changes in equity

FRS105 – key differences

- Reduced disclosures notes -

Required :

- Dividend paid
 - Reconciliation of reserve movements
 - Security given for debts
 - Guarantees and financial commitments
 - Accounting policies S321
 - The fact that micro regime is used
 - Nominal value of own shares / treasury shares held
 - Loans to directors S307
- Can disclose more but must refer to FRS 102

FRS105 – Profit and Loss Format

- Turnover
- Other income
- Cost of raw materials and consumables
- Staff costs
- Value adjustments and other amounts written off assets
- Other expenses
- Tax
- Profit or loss

FRS105 – Balance Sheet format

- Called up share capital not paid
- Fixed assets
- Current assets
- Prepayments and accrued income
- Creditors: amounts falling due within one year
- Net current assets (liabilities)
- Total assets less current liabilities
- Creditors: amounts falling due after more than one year
- Provisions for liabilities
- Accruals and deferred income
- Capital and reserves

Considerations

FRS105 – is it for you?

- Non disclosure of directors remuneration
- Reduced and simplified disclosures
- May be an issue with bank and lines of credit
- No revaluation of property
- No deferred tax

Companies Act 2017 update

Jillian O'Sullivan
Partner



Agenda

- overview of new Companies Act 2017
- unlimited companies filing accounts
- new register of beneficial owners
- questions

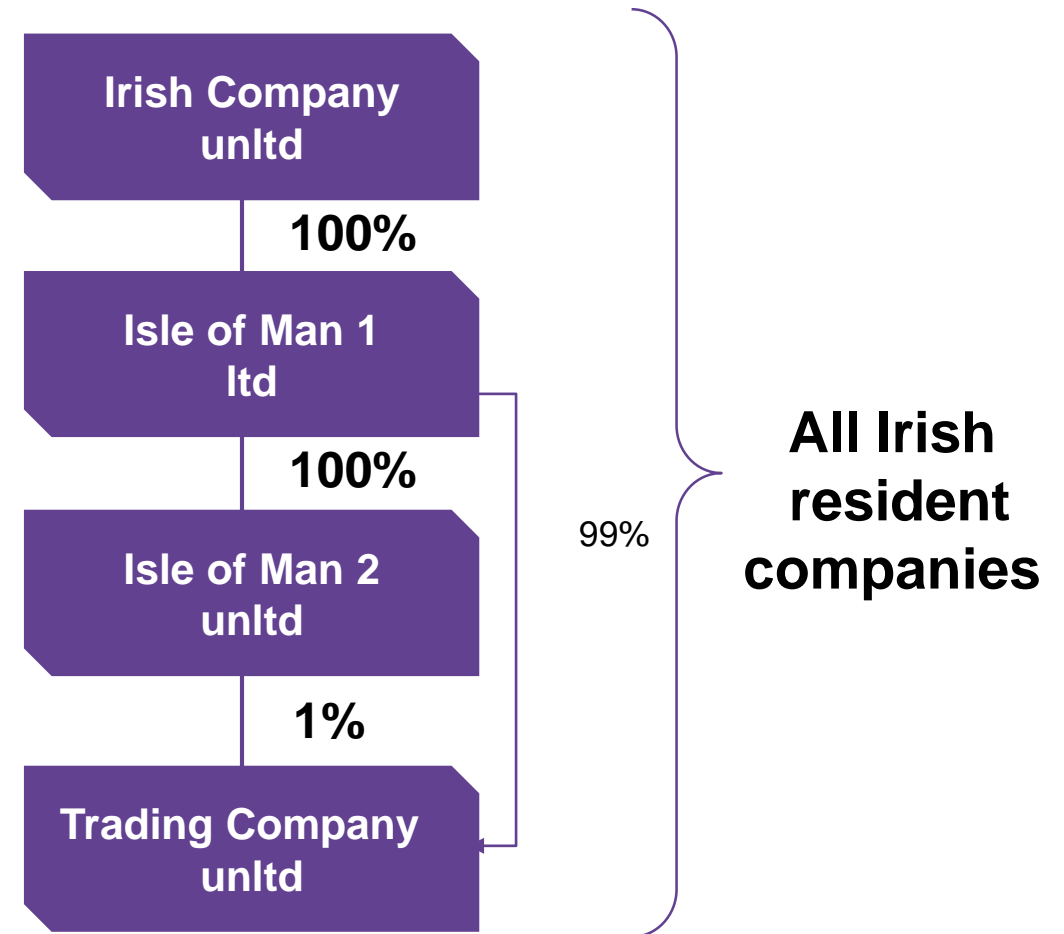


The Companies (Accounting) Act 2017

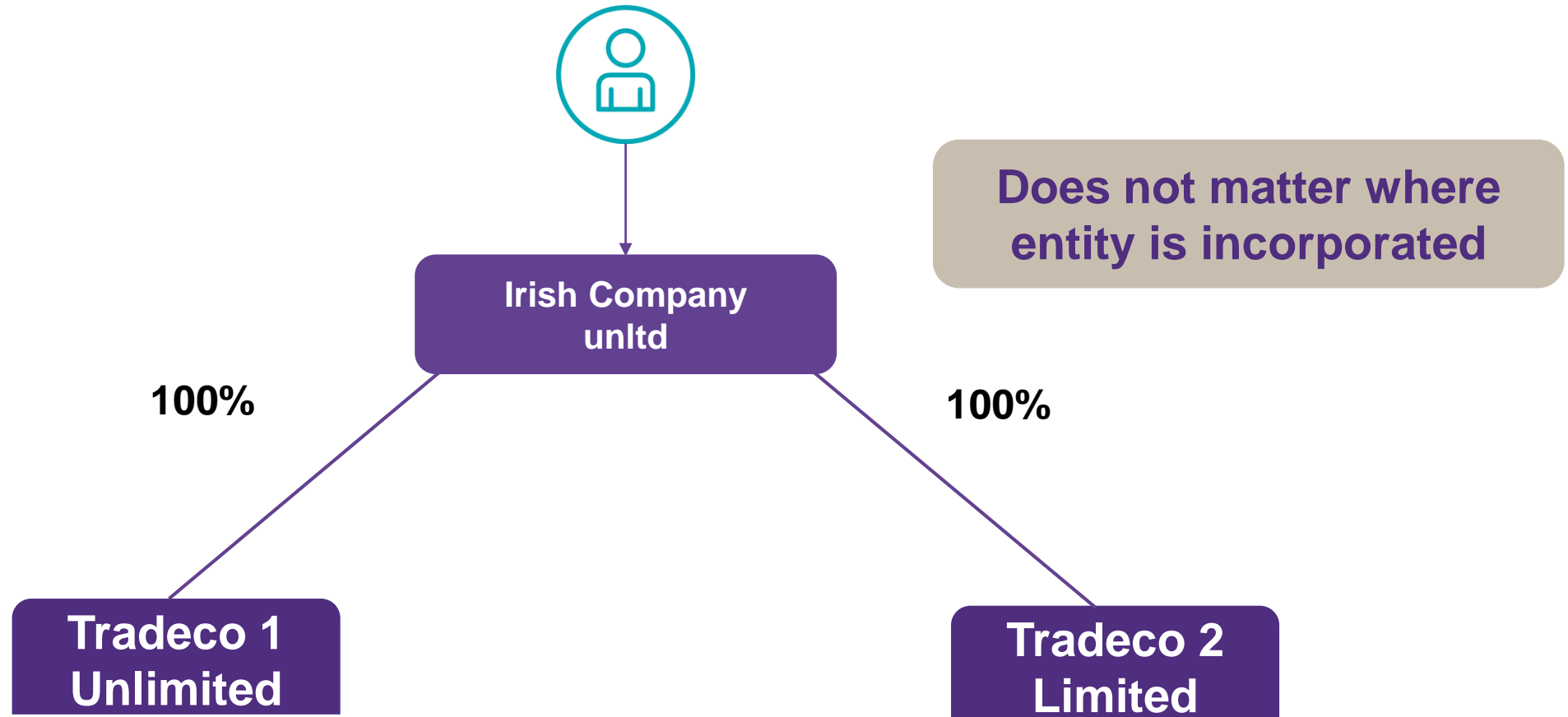
- introduction of micro companies regime
- introduction of small companies regime
- increase in small and medium company size criteria
- restriction of consolidation exemption to small and micro entities
- removal of abridged accounts option for medium size entities
- restriction on unlimited entities using non publication structures
- requirement to prepare and file report on payment to governments for certain entities in mining, extractive and logging industries
- corrections to some sections of the 2014 Act

Old non-filing structure

- the popular non-filing structure of old
- all companies that avail of a limit on their liability now required to file accounts publicly, in respect of year ends starting on or after 1 January 2017



Be warned any limited entity in a group creates a filing for all entities from 2022 onwards



Filing requirements

Private unlimited companies (ULCs)

Broader scope of ULCs obliged to file financial statements, an ULC:

- that has been at any time during the financial year a direct or indirect subsidiary of a limited undertaking **effective 1 January 2017**
- that has been at any time during the financial year a holding company of a limited undertaking deferred **1 January 2022**
- the direct or indirect members of which comprise any combination of companies such that the ultimate beneficial owner enjoy the protection of unlimited liability effective **1 January 2017**

New size criteria

	Small 280A	Micro 280D	Medium 280F
CA 2014 Section Turnover not exceeding	€12 million	€700,000	€40 million
Balance sheet not exceeding	€6 million	€350,000	€20 million
Avg number of employees not exceeding	50	10	250

	Small Group 280B	Medium Group 280G
CA 2014 Section Turnover not exceeding	€12 million (€14.4 million gross)	€40 million (€48 million gross)
Balance sheet not exceeding	€6 million (€7.2 million gross)	€20 million (€24 million gross)
Avg number of employees not exceeding	50	250

Company must satisfy 2 of the 3 size criteria for 2 sequential financial years

Effective dates

- effective for accounting periods beginning on or after **1 January 2017**
- early adoption is permitted under section 14 CAA 2017 for accounting periods beginning on or after **1 January 2015**



Accounts information to be filed

	Micro	Small	Medium
Directors' report	✗	✗	✓
Profit and loss account	✗	✗	✓
Balance sheet	✓	✓	✓
Notes to the financial statements	✓	✓	✓

THE BALANCE SHEET MUST INCLUDE A STATEMENT THAT THE STATUTORY financial statements have been prepared in accordance with the micro or small companies regime.

Medium companies and groups

- medium companies will no longer be able to file abridged accounts (section 354 is deleted)
- Section 297 deleted (exemption for medium holding companies from preparing consolidated accounts)
- Section 293 amended to exempt a holding company from the consolidation obligation if they qualify for the small/micro companies regime
- consolidation exemption will not apply to ineligible entities regardless of size
(ie listed on regulation markets, credit institutions, insurance undertakings or any entity within the provisions of Schedule 5)

Payments to governments – Part 26 Section 1449

- new filing requirement for mining, quarrying and logging industries - prepare and file a report of payments to government
- exemption available for subsidiary companies where payments are included in the consolidated payment report of a holding company
- report will not be included in the statutory financial statements
- does not require an assurance report from the statutory auditor

Register of beneficial owners

- all companies required to maintain a register of its beneficial owners
- the Regulations are in force since 16 November 2016
- Central Register to be put in place – CRO has been named as the "keeper" of the Central Register for Companies and IPs



What is a beneficial owner?

- any natural person who ultimately owns or controls through direct or indirect ownership 25% plus 1 share
- indirect ownership includes ownership through other corporate entities



Who do the regulations apply to?

- all Irish companies (limited, unlimited, DACS, PLCs)
- all other corporate entities, eg ICAVs, and Industrial and Provident societies
- currently trusts are not caught – however MLD5 proposes that this be extended



Any exemptions

- companies that are listed on a regulated market and which are subject to existing disclosure requirements consistent with EU law are exempt from the regulations
- companies that are subject to equivalent international standards that require disclosure of their beneficial ownership are exempt
- there are currently no group/subsidiary exemptions

What needs to be done?

- take reasonable steps to obtain and hold adequate, accurate and current information in respect of beneficial owners
- serve notice on any natural person who it has reasonable cause to believe to be a beneficial owner, and to request them to supply the information required for the register
- can give notice on any person which it has reasonable cause to believe has knowledge of the identity of any beneficial owner
- must reply to any notice received within one month of request

Information to be kept on register

- name
- date of birth
- nationality
- address
- statement of nature of interest held
- date became/ceased to be a beneficial owner



What if beneficial owner cannot be ascertained?

- the entity must take all reasonable steps
- it must retain records to show reasonable steps taken
- senior managing officials (including directors, and CEO must be inserted into the register, even if they hold no interest



Will the information be available publically?

- not compulsory under MLD4 that each state must have publically available
- unlike existing statutory registers for companies, there is no statutory right of inspection
- no confirmation as to whether will be publically available

Central Register

- Central Register to be put in place – CRO has been named as the "keeper" of the Central Register for companies and IPS
- expected to be online portal to be completed/ separate to your normal annual filings
- no filing fee for filing this
- SI expected later this year/earlier next year to commence the Central Register/guidance to issue then also

Sanctions for non compliance

Entity

- criminal offence
- fines up to €5,000 on conviction

- **Individual**

- criminal offence
- fines up to €5,000 on conviction



“

Questions and feedback

”

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Peter Vale
Tax Partner



International tax update



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What's here now?



Introduction

- Trump / US tax reform
- EU initiatives
- BEPS



US tax and impact on FDI

- reduce the federal rate from 35% to 20%
- change the US tax system from a worldwide to a territorial system
- one-time tax on all profits held offshore by US companies and their subsidiaries
- ongoing tax on foreign subs?
- border adjustment tax?



US tax and impact on FDI

- rate differential – factor in US State taxes
- tax not only driver but still look to low tax EU country
- positive for Irish companies with US operations



EU changes – Anti-Tax avoidance directive

- aimed at implementing BEPS into EU law
- discussions and approval within 6 months!
- 2 masters and 2 sets of rules!



EU changes – Anti-Tax avoidance directive

1. CFC rules – 2019 effective date
2. interest limitation rule - €3m exclusion, 2024
3. hybrid mismatch rules – 2019
4. exit tax – changes to exclusions? 2020
5. general anti-avoidance rule



EU changes – Anti-Tax avoidance directive

- interest – maximum 30% EBITDA
- grandfathering of loans pre 17 June 2016
- exemption where interest < €3m



EU changes – Anti-Tax avoidance directive II

- expansion of anti-abuse rules around hybrid mismatches
- PE mismatches
- dual resident mismatches



BEPS

- country by country reporting
- periods commencing on or after 1 January 2016
- group turnover > €750m
- notifications / reports



EU – dispute resolution

- October 2016 – proposal to improve the double tax dispute resolution framework in single market
- applies to cross-border tax disputes on corporate tax
- MAP cases – seek resolution in 2 years
- Otherwise arbitration via “Advisory Commission”



What's coming next?

Ireland

- review of corporate tax code fall out
- filing of CbCR reports (Dec 17)
- Apple case?
- general trends



EU

- exchange of rulings / APAs (Sep 17)
- new Dispute Resolution Framework (Jan 18)
- ATAD provisions (from Jan 19)
- CCCTB?



UK

- impact of Brexit
- NI rate
- UK CT rate movement?
- tax strategy publication
- future direction of UK tax policy



Globally

- BEPS implementation and review (2020)
- filing of CbCR report
- signing of MLI (June 17)
- general trends



Conclusions

- in the middle of period of much change
- much more to come
- how fundamental remains unclear
- potentially considerably more complex and costly
- can expect more disputes



Questions?

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Cyber Security Update

Tommy Maycock

Director Cyber Security



Welcome and agenda

01

Introduction
to cyber
security

02

What is cyber
crime?

03

So what's
going on?

04

So how bad
can it get?

05

Conclusions

06

Questions?

Introduction to cyber security

Introduction to cyber security

Cyber attacks have increased dramatically over the last decade exposing:



Sensitive personal and business information



Disrupting critical operations



High costs on the economy (estimated to be €800 million in Ireland)

Introduction to cyber crime

- the economy depends on a stable, safe, and resilient online environment
- a vast array of networks allows us to:-



Communicate and
travel



Power our homes



Run our economy



Provide government
services


Context

World Economic Forum: Global Risks Report 2017

	2017	◀ 2007 ▶
1	Extreme weather events	Breakdown of critical information infrastructure
2	Large-scale involuntary migration	Chronic disease in developed countries
3	Major natural disasters	Oil price shock
4	Terrorist attacks	China economic hard landing
5	Data fraud/theft	Asset Price collapse

Context

Monday 14 November 2016

 **Business News**

Cyber attacks 'more sophisticated, more targeted', warns Central Bank



Donal O'Donovan 
EMAIL

PUBLISHED
10/11/2016 | 02:30



SHARE



What is Cyber Crime?

Increasing impact





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Cyber security – a working definition

Cyber security is the
ability to protect or defend
an organisation's online systems
and technology from attack

So what's going on?

The Bad Guys have changed...



"Do you think now that we're doing fewer illegal things we can scale back the legal department?"

Sutton's Law



William F. "Willie" Sutton

“That’s where the money is...”

What do you need to understand...

- this is now big business
- hackers look for information assets they can monetise
- well established, polished attacks
- Garda assistance unlikely / ineffective

Focus



theguardian

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Banks and building societies

After Tesco fraud, are other banks vulnerable to cyber-attacks?

Experts have called for card readers and tighter security after £2.5m was stolen from the accounts of Tesco Bank customers

Miles Brignall

Saturday 12 November 2016 07:00 GMT

[f](#) [t](#) [e](#) [in](#) [G+](#)

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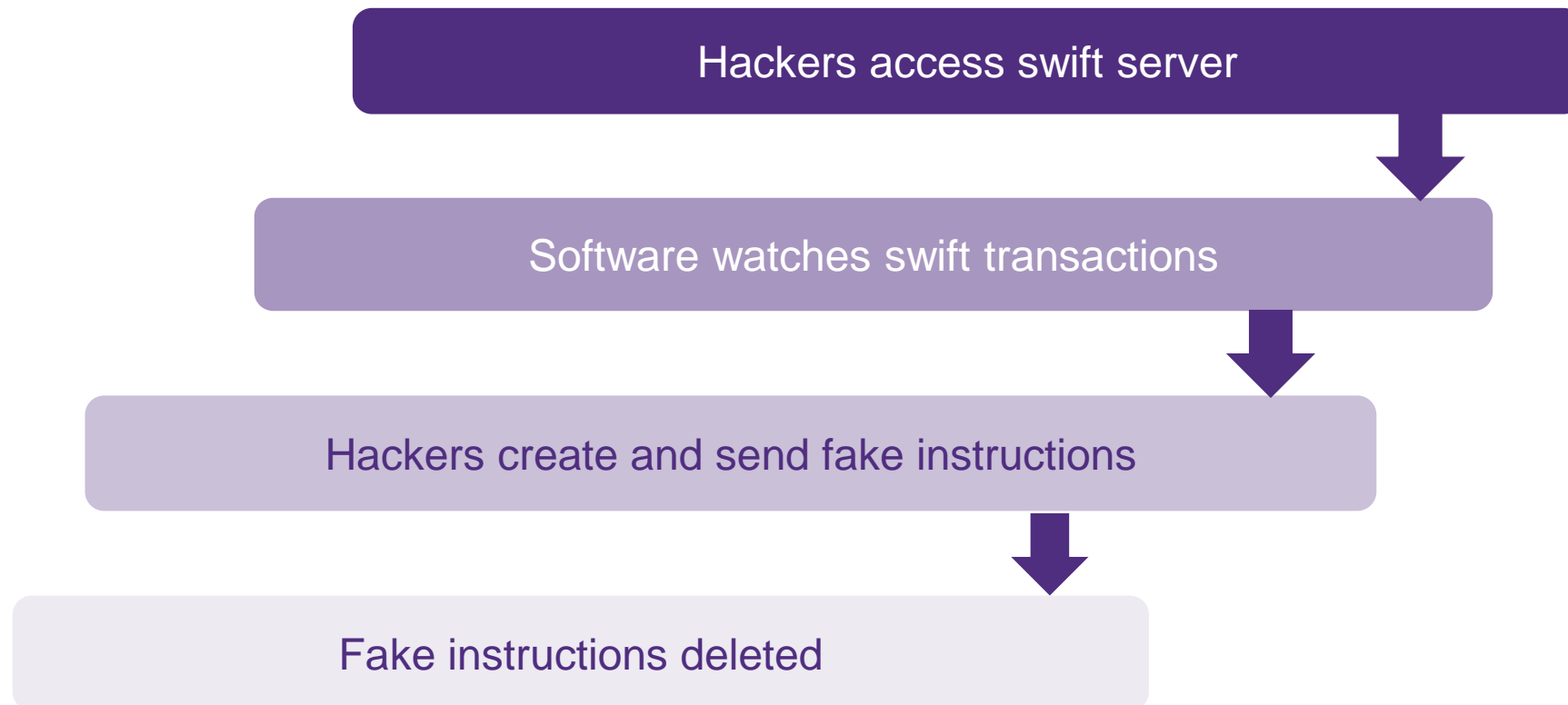
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Most popular

-  New Zealand earthquake: thousands stranded and towns cut off - as it happened
-  China threatens to cut sales of iPhones and US cars if 'naive' Trump pursues trade war

Swift attacks



How do the bad guys try to get your money?

- email scams
- text scams
- phone scams
- hacking



Phishing



Type of phishing

- phishing
- vishing
- spear phishing
- whaling
- baiting





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How is it delivered?

From: Andrew Hastings [mailto:andrew_hastings@idl.management]

Sent: 12 November 2015 10:43

To: Paul Jacobs

Subject: Letter

Dear Paul ,

i sent you a letter and would like to know if you have received the same.

In any case you haven't received it, I have attached the letter using Dropbox for your attention.

[https://dropbox.com/andrew/Paul Jacobs/draft.pdf](https://dropbox.com/andrew/Paul%20Jacobs/draft.pdf)

Please note that you will need to login to with the recipient Email address: pkjacobs@eircom.net to access the file

Thank you

Andrew Hastings



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Payment re-direct



Fri 04/12/2015 11:57

Paul Mccann <paul.mccann@iegt.co>

RE: Transfer

To  Andrew Watson

 You replied to this message on 04/12/2015 12:14.

Andrew

Here are the details needed for the transfer

Account Name: Yvette Granville

Halifax Bank 11 Alcester Road South, Kings Heath, Birmingham. West Midlands B14 7JJ England

Sort code: 111086

Account Number: 11862768

BIC number: HAFXGB21M26

Iban Swift Code: GB73HLFX11108611862768

Amount :£23,376

Let me know once done.



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What do they do with access?

- subvert banking apps
- fake money transfer orders
- steal financial data
- steal proprietary data
- steal personnel data

Ruin Reputations.



What can the consequences be?



Irish Examiner

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HOME » BUSINESS

Cyber attack victim firm Loyaltybuild in Clare has €18m loss

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Tuesday, February 02, 2016

Gordon Deegan

Loyaltybuild – the Co Clare firm that was victim to a “very sophisticated cyber attack” plunged into the red in 2014 to record pre-tax losses of €18m. Loyaltybuild Ltd posted a profit of €1m in 2013.



THE CLARE HERALD
BREAKING NEWS FOR CLARE PEOPLE AT HOME AND ABROAD

HOME NEWS BUSINESS SPORTS LIVING HISTORY GALLERY VIDEO WEATHER

Home » Business » 37 jobs to go at Loyaltybuild's Ennis HQ

CAREERS AND TRAINING

37 jobs to go at Loyaltybuild's Ennis HQ

By *Páircic McMahon* - October 16, 2016

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Advertisement

Personal data theft

Uber paid \$100,000 to hackers to delete the data and keep the breach quiet

Ride-hailing company kept details of the 2016 crime under wraps for over a year



Hackers stole the personal data of 57 million customers and drivers from Uber Technologies. File photograph: iStock

about 8 hours ago



Hackers stole the personal data of 57 million customers and drivers from Uber Technologies, a massive breach that the company concealed for more than a year.



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Automated service

Home Buy CC CC Orders Buy Dumps Dump orders Checker Tickets Hello, [redacted] Cart (0) \$ Balance: 0.0\$ Add money Replace policy Logout

CC [Bulk Orders - Low Prices!](#)

Country	CC type	CC mark	Debit/Credit
All USA	All Visa Master	All Gold Platinum	<input checked="" type="checkbox"/> DEBIT <input checked="" type="checkbox"/> CREDIT
Zips & Bins	Bank & State & City	Base	Additional
<input type="text" value="91111, HJ4111"/> <input type="text" value="380282, 378282"/>	Bank: <input type="text" value="All"/> State: <input type="text" value="All"/> City: <input type="text" value="All"/>	<input type="text" value="All"/>	<input type="checkbox"/> Expiring 09/14 <input type="checkbox"/> Phone <input type="checkbox"/> VBV <input type="text" value="Exp. date (1312)"/>

Didn't find the bin you were looking for? Need more dumps of particular bin? Try our partner's shop - [Bulk Orders - Low Prices!](#)

<input type="checkbox"/>	Bin	Card	Debit/Credit	Mark	Expires	Country	State	City	Zip	Phone	VBV	Base	Price	Cart
<input type="checkbox"/>	601148	DISCOVER	CREDIT	CONSUMER PREMIUM CAR	03/2019	United States	TX	Houston	77084			Votranko-5	7.5\$	<input type="button" value="+"/> <input type="button" value="-"/>
		<small>Dump or cc of this particular bank (BIN) cannot be replaced or refunded.</small>												
<input type="checkbox"/>	526225	MASTERCARD CITIBANK N.A.		STANDARD	11/2016	United States	CA	Riverside	92504	Yes		Votranko-5	7.5\$	<input type="button" value="+"/> <input type="button" value="-"/>
		<small>Dump or cc of this particular bank (BIN) cannot be replaced or refunded.</small>												



The Biggest Risk



How do you mitigate these risks?

- traditional approaches no longer valid
- combine traditional strategies
- raise awareness of cyber crime within organisation
- create compliance culture

How bad can it get?

So, how bad can it get?

ANDY GREENBERG SECURITY 07.24.15 12:30 PM

AFTER JEEP HACK, CHRYSLER RECALLS 1.4M VEHICLES FOR BUG FIX



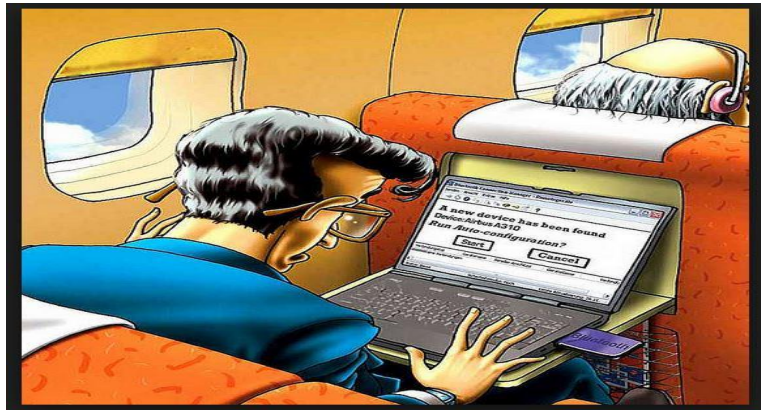
ACTIVELY PROTECT
YOUR NEW DEVICE
WITH
NORTON™ SECURITY

ACTIVATE NORTON



LATEST NEWS

So, how bad can it get?



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NEWS SPORTS LIFE MONEY LOCAL TRAVEL OPINION SA CROSSWORDS YOUR TAKE INVESTIGATIONS VIDEO STOCKS

FBI: Computer expert briefly made plane fly sideways

Elizabeth Weiss, USATODAY 8:39 p.m. EDT May 16, 2015

SAN FRANCISCO — A computer security expert hacked into a plane's in-flight entertainment system and made it briefly fly sideways by telling one of the engines to go into climb mode.

(Photo: FBI) Chirs Roberts of One World Labs in Denver was flying on the plane at the time it turned sideways, according to an FBI search warrant filed in April.

The warrant was first published on Friday by **APTN**, a Canadian News Service. Roberts told the FBI he had hacked into planes "15 to 20 times," according to court documents first made public Friday.

Roberts first made news in April when he was told he couldn't fly on United Airlines because of tweets he had made about whether he could hack into the flight's onboard computer settings.

USA TODAY Computer security expert blocked from flight after tweets

The FBI search warrant describes him doing just that.

According to the document, in an interview on Feb. 13, 2015, Roberts told agents he had hacked into in-flight entertainment centers on Boeing 737s, 757s and Airbus A...

TOP VIDEOS

at&t DIRECTV

Why did AT&T's cable merger...



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Customer attacks in Ireland

Malware based:

- emails from known individuals
- forwarded from CFO to controller
- €900,000 transferred in 8 hours

Social engineering:

- grooming of finance staff
- 8-9 month lead time
- helpful demeanour
- €600,000 in one incident in Ireland

Distributed denial of service attacks (DDoS)





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DD4BC – the professionals

Hello,

To introduce ourselves first:

<https://blogs.akamai.com/2014/12/dd4bc-anatomy-of-a-bitcoin-extortion-campaign.html>

<http://bitcoinbountyhunter.com/bitalo.html>

<http://cointelegraph.com/news/113499/notorious-hacker-group-involved-in-excoin-theft-owner-accuses-ccedk-of-withholding-info>

Or just google "DD4BC" and you will find more info.

Recently, we were DDoS-ing Neteller. You probably know it already.

So, it's your turn!

<site> is going under attack unless you pay 20 Bitcoin.

Pay to 18NeYax6GCnibNkwyuGhGLuU2tYzbxvW7z

Please note that it will not be easy to mitigate our attack, because our current UDP flood power is 400-500 Gbps, so don't even bother.

Right now we are running small demonstrative attack on your server. Don't worry, it will stop in 1 hour. It's just to prove that we are serious.

We are aware that you probably don't have 20 BTC at the moment, so we are giving you 48 hours to get it and pay us.

We do not know your exact location, so it's hard to recommend any Bitcoin exchanger, so use Google.

Current price of 1 BTC is about 250 USD.

IMPORTANT: You don't even have to reply. Just pay 20 BTC to 18NeYax6GCnibNkwyuGhGLuU2tYzbxvW7z – we will know it's you and you will never hear from us again. We say it because for big companies it's usually the problem as they don't want that there is proof that they cooperated. If you need to contact us, feel free to use some free email service.

But if you ignore us, and don't pay within 48 hours, long term attack will start, price to stop will go to 50 BTC and will keep increasing for every hour of attack.

ONE MORE TIME: It's a one-time payment. Pay and you will not hear from us ever again!



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Customer service

Top 10 Booters

- #1: Network Stresser - <http://Networkstresser.com> (120GB/seconds)(Skype Resolver)(Stop Button)(Strongest Ever)(Admin's Choice)
- #2: Beta Booter - <http://betabooter.com> (100GB/seconds)(Build Your Plan)(15% Off With Bitcoin)(Accepts Credit Cards)
- #3: Critical Booter - <https://critical-boot.com> (90GB/seconds)(Max Time)(Best for Xbox)(Very Powerful)(Skype Resolver)
- #4: Stressed Stresser - <https://str3ssed.me> (Very Powerful)(Best for Xbox)(Max Time)(Cheap)
- #5: Poly Stresser - <http://polystress.com> (Strong Power)(Up For 4 Years)(Easy Site)
- #6: Exo Stresser - <http://exostress.in> (Decent Power)(Friendly Staff)
- #7: Data Booter - <http://databooter.com> (Max Time)
- #8: Insta Booter - <http://instabooter.com> (Strong)
- #9: Z Stresser - <http://zstress.net> (Hard Hitting)
- #10: Top Booter - <http://topbooter.com> (Free)





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DDoS - Asset management organisation targeted

1

Day 1 2:00PM:
Received email
from DD4BC
seeking €6,000 in
24 hours to avoid
systems outage

2

Day 1 4:00PM:
Systems offline
after large flood of
traffic. Attack stops
after 5 minutes.

3

Day 1 6:00PM:
Datacentre provider
says it will take 3
days to put
defences in place

4

Day 2 2:00PM:
Further email from
DD4BC extending
deadline by 24
hours

Conclusion?



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What should you watch for?

- Promises of money, rebates, or prizes
- Scare tactics and prompts for a quick response
- Attachments or links you weren't expecting
- Dangerous links masked under seemingly-innocent ones
- Requests for sensitive information



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Common security mistakes

- Poor password management
- Leaving your computer on, unattended
- Opening email attachments from strangers
- Not installing anti-virus software
- Laptops on the loose (Encryption not in place)
- Sharing information (passwords)
- Not reporting security violations
- Always behind the times (security updates)



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What should you do?

- Never disclose security details, such as your PIN or full password – it's never right to reveal these details
- Don't assume an email request or caller is genuine – people aren't always who they say they are
- Don't be rushed – a bank or genuine organisation won't mind waiting to give you time to stop and think
- Listen to your instincts – if something feels wrong then it is usually right to pause and question it
- Stay in control – have the confidence to refuse unusual requests for information
- Raise awareness of cyber security with your organisation

Do the basics well...



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Cyber security leading practice

Culture of security & resilience with training on cyber threats for staff

Clear procedures to respond to cyber incidents and periodically test response with contingency plans in place. Substantial attacks or breaches should be reported to the Central Bank.

Cyber security should be a standing issue at board meetings

Understand **assets and information** and keep up-to-date on threats

Robust locally signed off policies & standards support company's **cyber security objectives**

Clear accountability for cyber security. CIO (or equivalent) or appropriately trained board member should be responsible.

Verify third party requests and ensure AML procedures for new payment requests

Periodic penetration testing is in place

Ensure **mobile devices are secure**

Satisfy themselves that **third parties are secure**



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Cyber security frameworks

Prepare

- Cyber security risk and threat assessment
- Security process or technical assessments
- Security policy development
- Third party cyber security assurance

Protect

- Security architecture
- Security technology implementation eg SIEM (outsourcing!)
- Security process design and implementation
- Identity and access management
- Privacy and data protection
- Data classification
- Enterprise application integrity
- Business continuity and disaster recovery
- Penetration testing

React

- Security operations and monitoring
- Security and data breach incident response

Change

- Security program strategy and planning
- Security governance
- Security awareness

The future

- By 2022, cybersecurity ratings will become as important as credit ratings when assessing risk of doing business
- By 2021, at least one company will publicly acknowledge a \$1 billion revenue impact from a malware attack
- By 2020, 60% of organizations engaging in M&A activity will consider cybersecurity as a critical factor in due diligence
- By 2020, national authorities in the U.K. and U.S. will have mandatory capture of information related to breaches

Gartner Predicts 2018: Security and Risk Management Programs

Questions?



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Personal financial planning

Liam Naughton

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Certified Financial Planner®

Grant Thornton Financial Counselling Limited



“

The most important thing for me is to achieve a “work-life” balance and to have **enough** in retirement to live comfortably.

”

Typical client conversation

Worries

- When can I retire?
- How much do I need?
- What happens if I die?
- Will my family be ok?
- Am I taking too much risk?

Goals

- Retire early
- Financial independence
- Provide for spouse/family
- Inheritance planning
- Maintain wealth

“

Nobody has a right to tell you what to do with your money, until they understand what you are trying to achieve.

”

Three step process



1. Where are you now and how did you get to this point?
2. What are your long term goals?
3. What is your investment experience?
4. What is your one primary objective?

1. Are you saving enough?
2. When can you retire?
3. Can you meet your goals?
4. Will your family be ok in the event of your death?
5. Are you taking too much investment risk?

1. Pension advice
2. Investment advice
3. Protection advice
4. Product implementation, where relevant to the plan

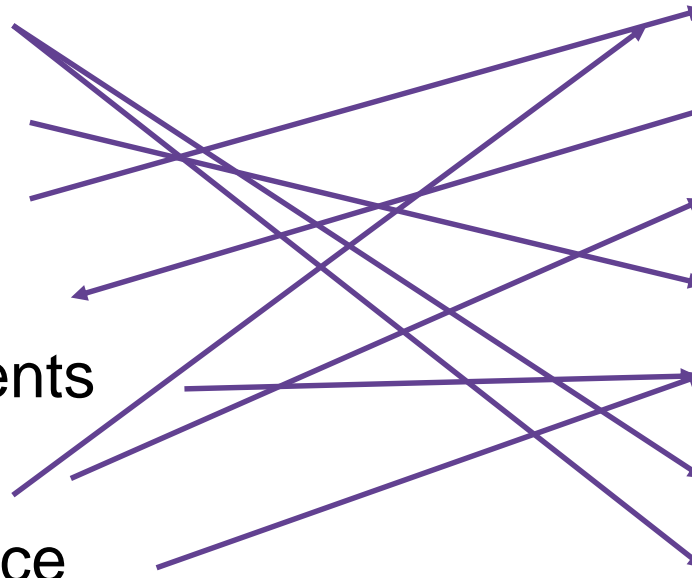
Managing wealth – a world of confusion

Assets and income

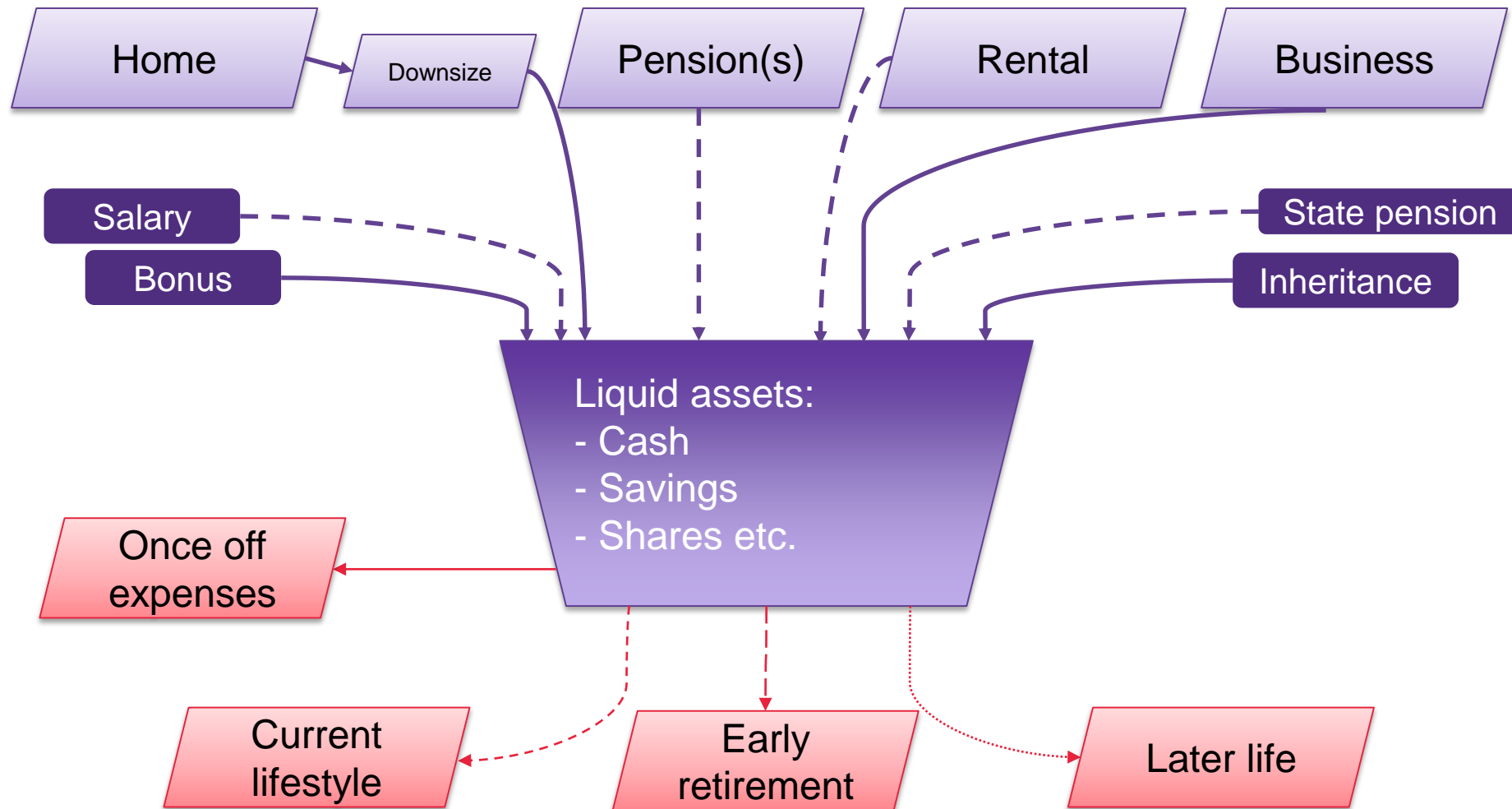
- Salary
- Bonus
- Rental
- Pension
- Investments
- Savings
- Inheritance

Liabilities and expenditure

- Mortgage
- Pension contributions
- Children's education
- Short term saving
- New home
- Household and motor
- Lifestyle



Making sense of it all



Three types of individual

1. Don't have enough

- money going to run out
- this could happen in pre or post-retirement

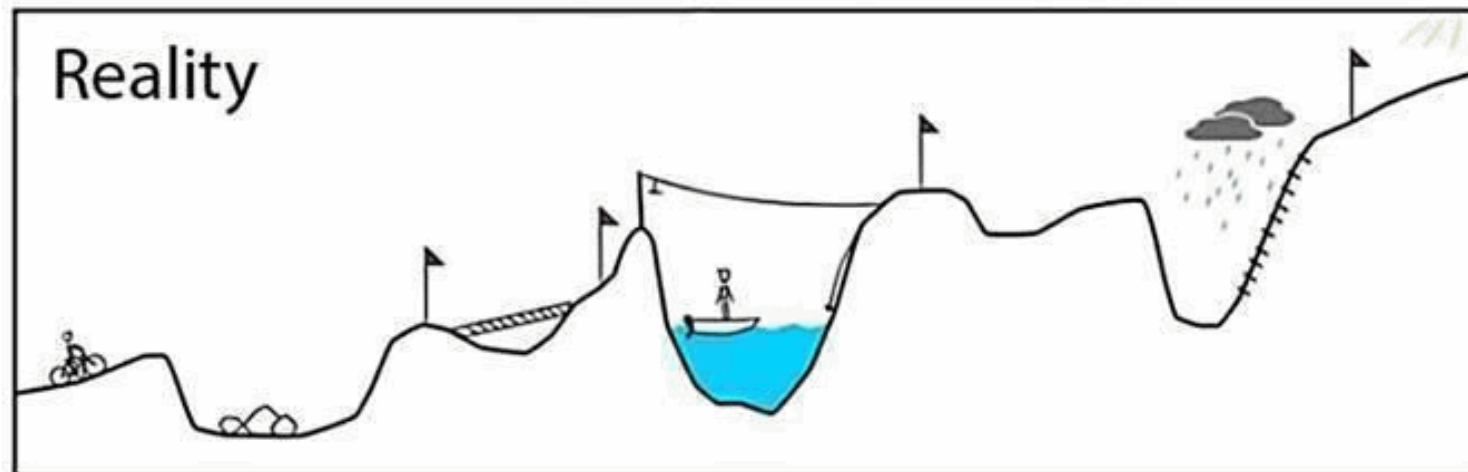
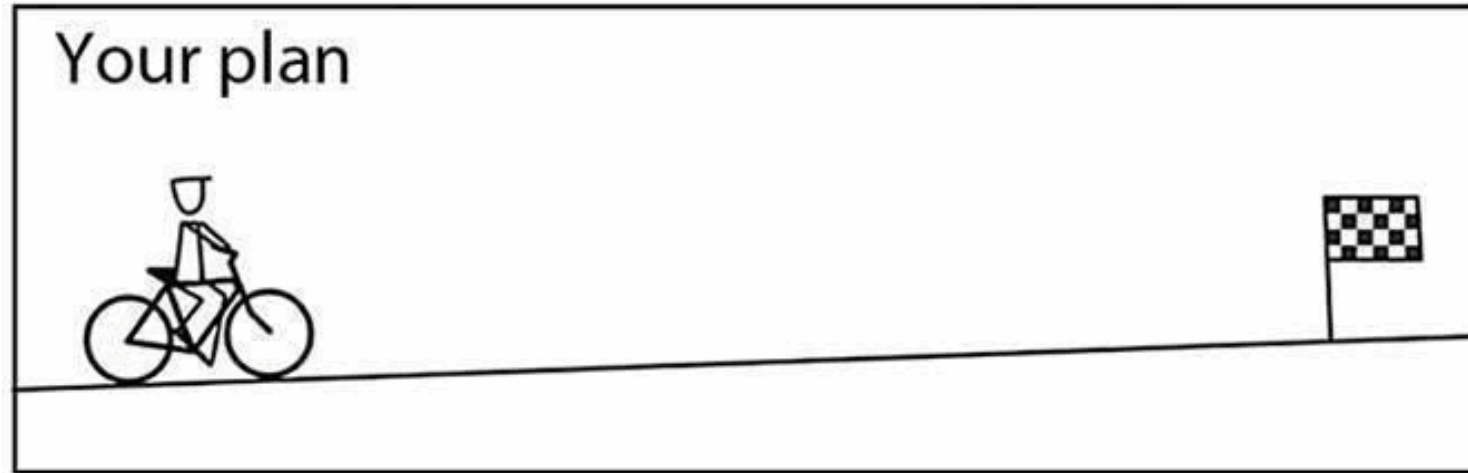
2. Have just enough

- require ongoing management of income, savings and outgoings

3. Have too much

- risk becoming the richest woman/man in the graveyard
- efficient inheritance planning or increase lifestyle

Why is it so important to review?



Food for thought

- As part of an Australian survey in 2016, respondents were asked how much more they would need to earn to be happier. Whether they earned \$20,000, \$200,000 or \$2,000,000 p.a. the common response was “**another 30%**”.
- **So, what’s your number?**
 - How much do you need to earn/save/invest in order to reach your number?
 - Why not find out?

***Most of the problems in life
are because of two reasons:***

we act without thinking



or

***we keep thinking without
acting***



Analytics for CFO's of SMEs

Roslyn Lee-Symmons

Associate Director – Grant Thornton

Index

- Why Analytics and What is Data Analytics? 3
- Benefits of Analytics 12
- Analytics Types 14
- Data Analytics – SME's - What do you need to do? 19
- Data Analytics – Some idea's 26

MOVE TO ROS SLIDES Have your say ...

- Simply enter sli.do into the address bar of your browser
- Sign in with event code #GTCFO
- Touch the 'ask' screen if you wish to put a question to a panellist

Why Analytics and what is Data analytics?

“

“Numbers can tell you things you never even knew to ask. But they never speak for themselves.” Dr. Jordan – The Risks of Big Data for Companies

”

Why analytics? Today's reality



90% of the worlds data created in the last two years



Every new day we create **2.5 quintillion bytes** of data - which is equivalent to 57.5 billion 32 GB iPads



Every minute – 240 million emails and 571 new websites created



Every second – 40,000 google searches



Companies estimate they are only analysing 12% of data

- are they analysing the right data?
- are they harnessing their data?



www.internetlivestats.com

Given the rapid increase in volume of data that organisations hold, the existing methods of analysis are no longer fit for purpose, whether forensic analysis or analysis for management or operational purposes, it is key that we use DA in analysing data

The Digital World

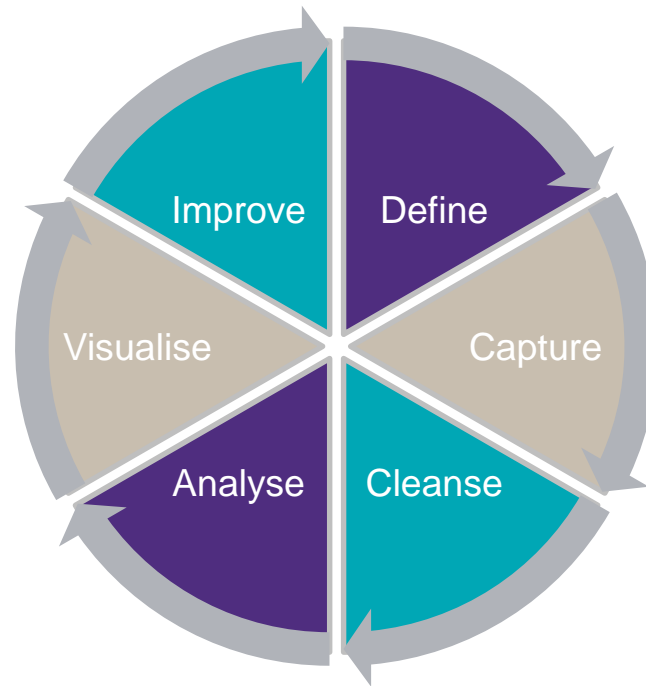
Undertaking an effective data analytics and visualisation initiative can be vital to an organisation's short and long-term success

- reliance on technology in all aspects of our lives
 - Flying
 - Banking
- the cloud – we are all in it!
- Internet of Things
 - Heart monitors
 - Tyre pressure/wear and tear
 - Airline life jackets
- the race to digital has identified the importance of cyber risk

What is data analytics?

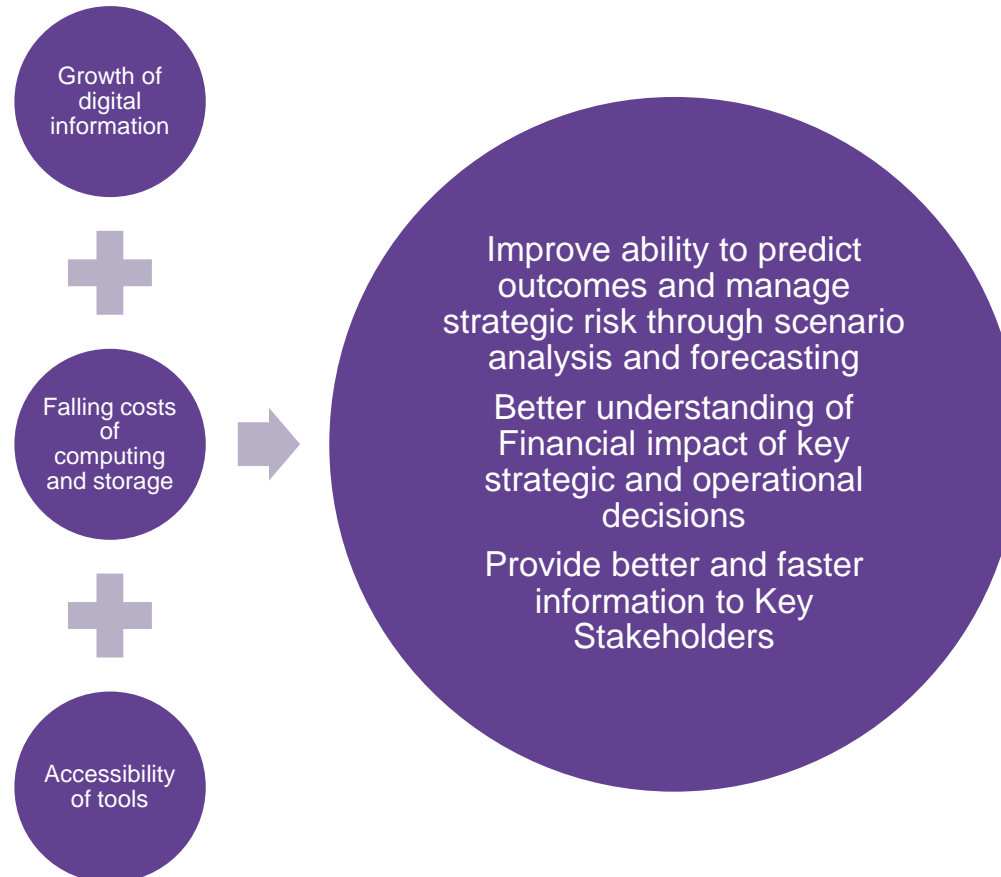
Data Analytics

- refers to qualitative and quantitative techniques and processes used to enhance productivity and business gain. **Data** is extracted and categorised to identify and analyse behavioural **data** and patterns, and techniques vary according to organisational requirements



Data Analytics – the value

Analytics is a strategy and operational issue – not a technology issue



What do you see as the main barriers to Data Analytics?

- A. Getting access to the right data
- B. Quality of data
- C. Lack of tools/technologies
- D. Don't know where to start
- E. Lack of talent

Barriers to Data Analytics?

- A. Getting access to the right data – Know the question you are looking to have answered – Understand what data you require to answer this question – work with team to understand where you can capture this data
- B. Quality of data – Know the question you are looking to have answered – Understand what data you require to answer this question – work with team to understand where you can capture this data
- C. Lack of tools/technologies – Open Source tools available
- D. Don't know where to start – Start with areas that are quick wins
- E. Lack of talent – College courses are changing, business courses now have DA embedded

Benefits of Analytics

Benefits of analytics



Create Value

- turn insights into competitive advantage; and
- enhance ROI for risk and compliance.



Increase Insights

- real-time data;
- faster and smarter;
- focus on leading indicators; and transparency.



Reduce Costs

- reduce internal audit costs;
- focus on elevated risk areas; and
- decrease exposure using modelling and machine learning.



Mitigate Risk

- reduce errors and false positives;
- better testing coverage; and
- faster response to risks and failures.



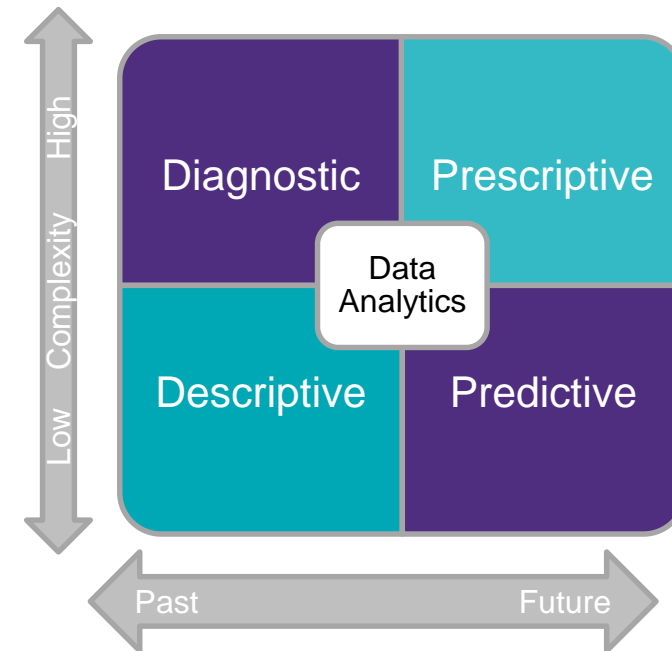
Increase Efficiency

- automation of processes;
- improved data access and quality; and
- positive assurance on controls and compliance.

Analytics Types

Analytics Types

1. **Descriptive analytics** – what has happened?
Reporting of past events to characterise what has happened
2. **Diagnostic analytics** – why did it happen? –
ability to identify the underlying transactional detail. Analysing data by cutting differently, e.g. by product, by customer, by region
3. **Predictive analytics** – what will happen?
Extraction of information from large volumes of existing data, application of certain assumptions, and drawing correlations to predict future outcomes and trends
4. **Prescriptive analytics** – what can we do to influence what will happen? Using predictive analytics to determine what the demand will be, prescriptive identifies which actions will help drive this prediction



The Four V's of Data: Volume, Velocity, Variety and Veracity

Volume

- Organisations now capture and process more volumes of data than ever before. We've gone from Megabytes to zettabytes (1 trillion megabytes). Given this increase in data volume, we need to develop data analytics solutions to provide value to organisations

Velocity

- Globalisation and connectivity result in data being produced at increasing speeds. 90% of all the worlds data was created in the last 2 years (IBM). With this increased speed of data, the type of data is changing, we must work to identify the critical data, and how to process this

Variety

- Data is being identified, captured, and stored from an increasing number of sources. This is being stored in structured and unstructured data formats. Data analytics must take into account these different types of data

Veracity

- Is the data accurate and complete? If data is not accurate or complete it can compromise the analysis and produce inaccurate results

The Challenge that you will face

Using Data and Analytics in the correct way is key to turning the Finance team from a reporting group to a group that drives future business strategy

Nearly 170 chief internal audit executives, directors, and managers and supervisors participated in a recent US Grant Thornton LLP Internal Audit Data Analytics survey.



Where do you currently use data analytics most?

- A. Business Intelligence
- B. Financial planning and analysis
- C. Risk Management
- D. Financial and operating reporting
- E. Pricing analytics
- F. None of the above
- G. All of the above

Data Analytics – SME's - What do you need to do?

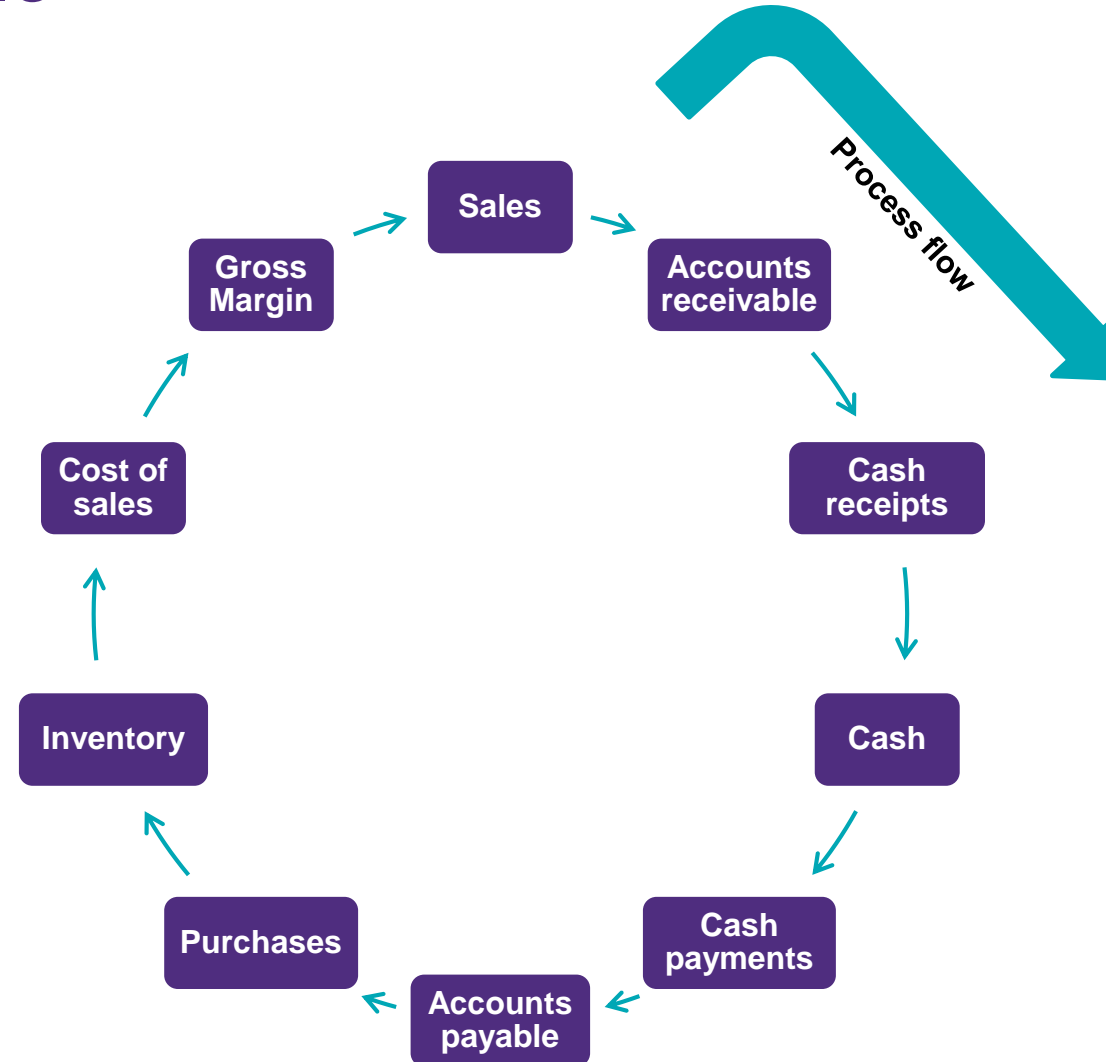
Consider your business

- What type of business are you?
 - Retail, Manufacturing, Online presence, other
- What are your processes?
- What are you trying to do?
 - Increase revenue? Reduce costs? Increase your market presence?
- Identify the question you are trying to answer

Don't try and do everything at once

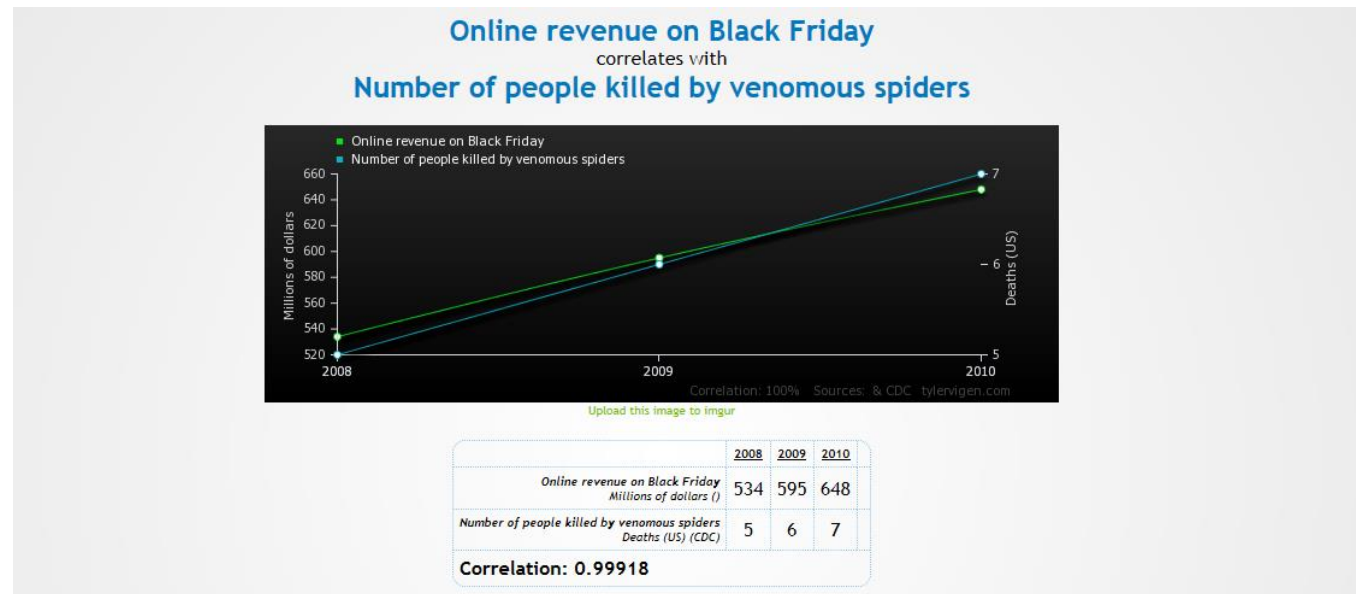
Clients – business cycle

Most businesses follow a cycle that finishes in cash, whether it be cash receipts or cash disbursements. This diagram shows the relationships between accounts and transactions. (e.g. A sale of a good would impact the Sales, AR and the Gross Margin)
This could allow you drive your analytics approach

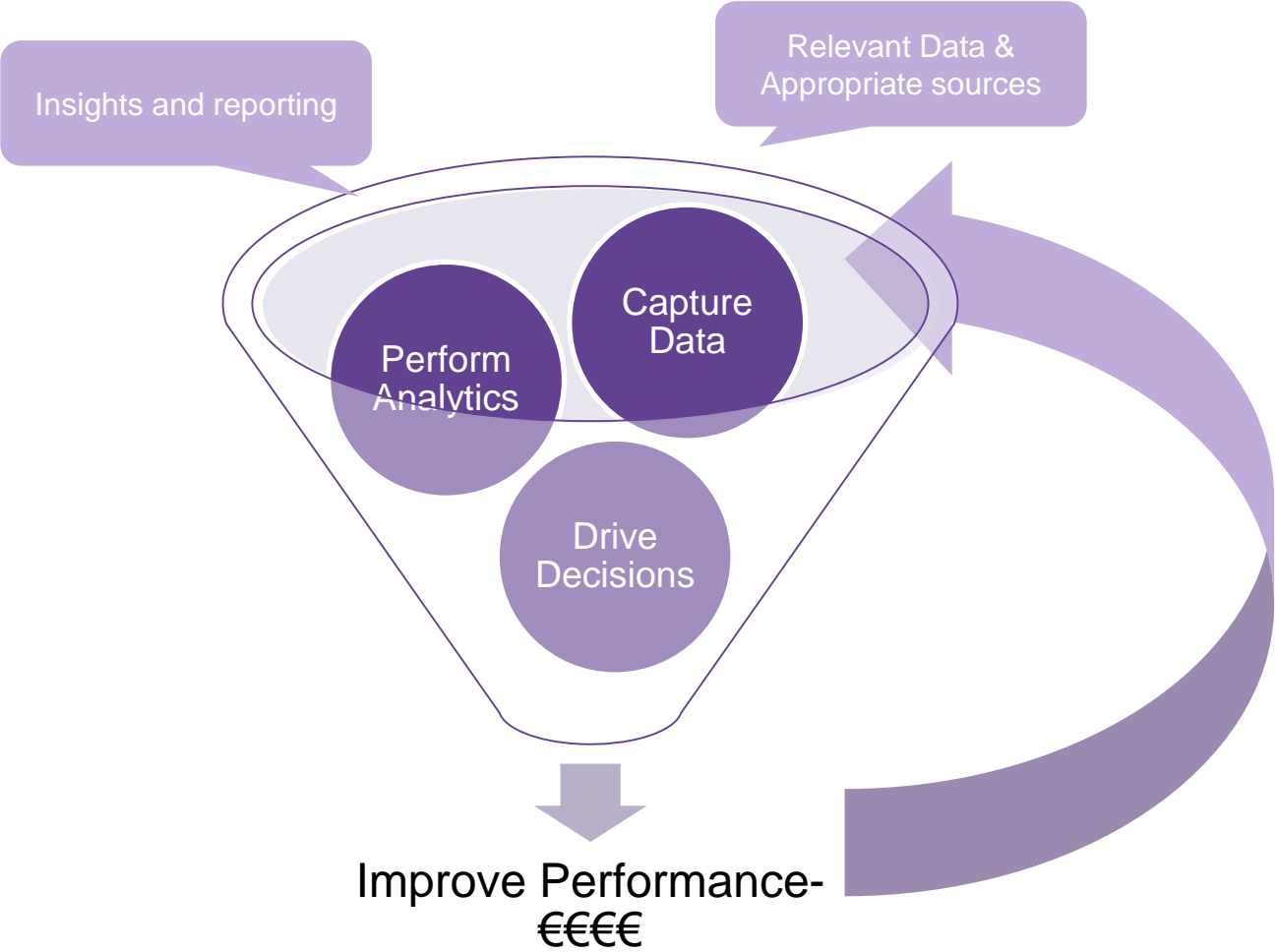


Ask the right question – Get the right data!

- If you don't identify the right question, you won't be able to identify the right data and therefore you won't be able to perform the right analytics – You don't want to get the below correlation



The continuous loop of understanding your data

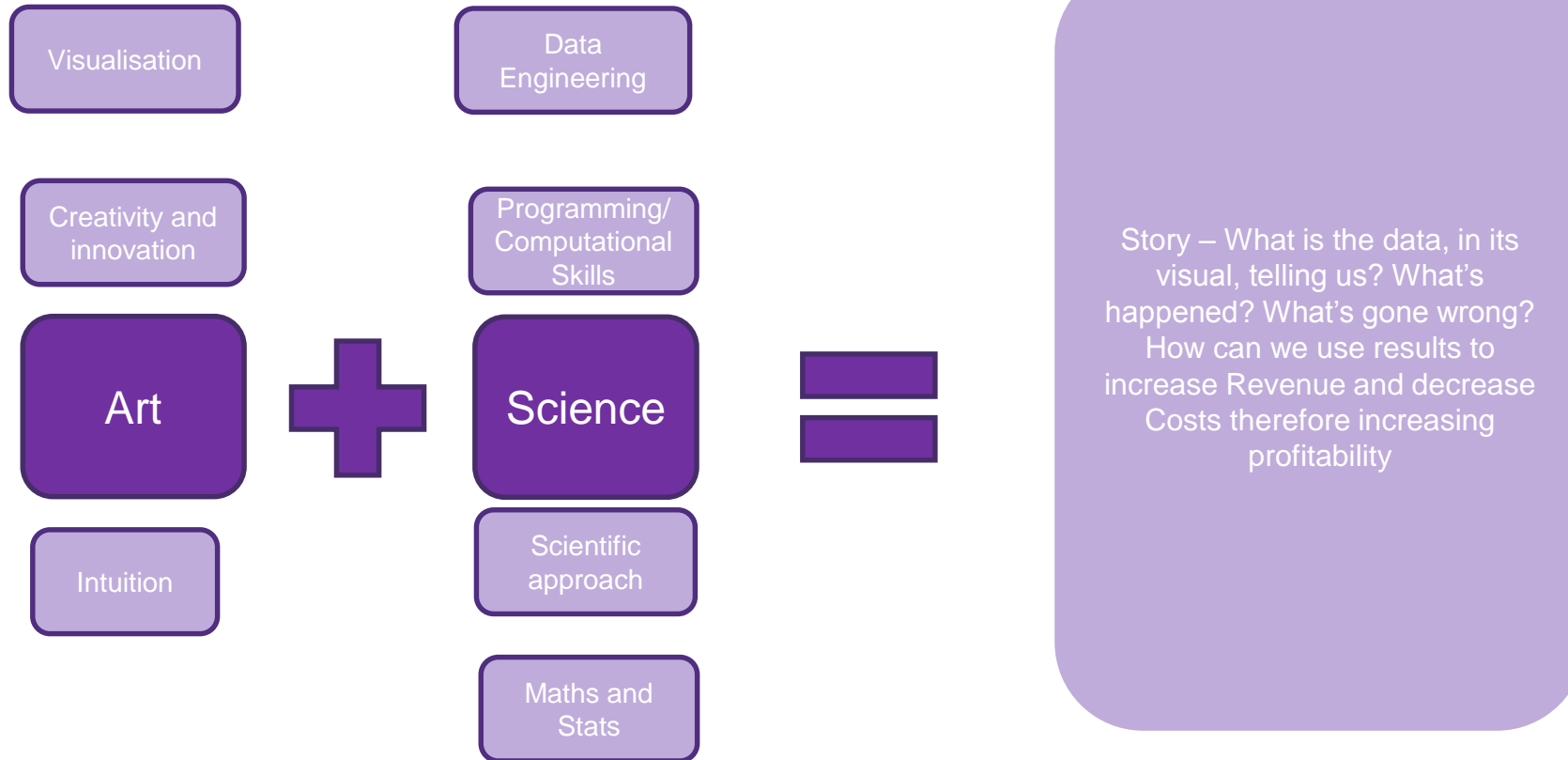


Do you have the right team?

Effective data analytics can give companies a huge competitive edge, because business managers can gain new insights into trends and customer behaviors that might not otherwise be possible.

- When building a team for success **diversity is critical**
- You need to include people with
 - Analytical skills
 - Business skills
 - Relationship skills
- This team needs to be able to **identify the right question** to answer, **determine the right data** to be used, **identify where to find** this data, **organise the data** appropriately to answer the question and **communicate** the results

Unlocking the value of data



DATA – Structured and Unstructured

Data Analytics – Some ideas

Process mining - merits and advantages

The process analysis is of great interest to various roles within the company: **Senior Management, Process Owners, Divisional Management, Internal Audit, Compliance Officers, etc**



Increase in process efficiencies

- reduction in cost
- reduction in lead times
- increase in quality



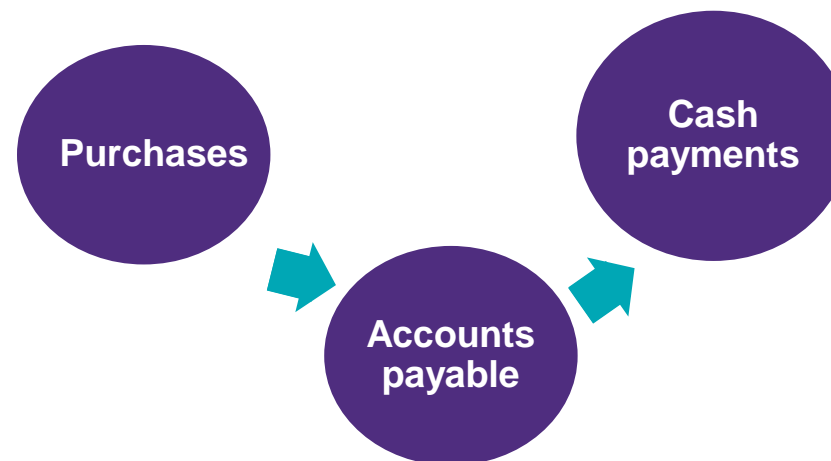
Creation of compliant/secure processes

- elimination of control deficiencies
- elimination of 'process proliferation'
- increased transparency (monitoring)



Increase in data quality/entry quality in source system

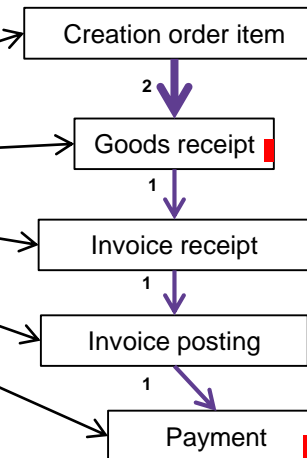
- positive side effect: Elimination of data entry problems



Process mining: Data driven business process analysis – operating principle



ID	Activity	Date of execution
1	Creation order item	01.06.2016 08:15
1	Goods receipt	10.06.2016 12:17
1	Invoice receipt	11.06.2016 10:09
1	Invoice posting	11.06.2016 17:43
1	Payment	20.06.2016 06:00
2	Creation order item	09.06.2016 09:12
2	Goods receipt	17.06.2016 12:11



The base data originates from the source system (e.g. ERP-system) and documents (implicit) the business transactions for analysis. This base data is loaded into a highly efficient database for further analysis, is cleansed and plausibility is validated.

The **Eventlog** is created based on the base data and summarises activities into business transactions. A number of different source systems are already integrated in the Eventlog, if required.

The **process visualisation** offers an easy to analyse and intuitive presentation of the **Eventlog**. Apart from start and end activities it also visually shows the frequency of following activities.

Further, in the analysis dashboard a number of filters can be applied to the process.

Tax focus

Tax

Why?

- tax is a complex area that takes significant time in performing and confirming that correct
 - Revenue Audit
 - VAT
 - PAYE/PRSI
 - customs duties



VAT checker

VAT

- the importance of having the right data, at a transactional level, in a clients book-keeping is increasing. More and more countries are introducing the obligation of providing extra information per transaction. What does this mean for client?

Tests to perform

- sequential invoice numbering
- double entries
- credit entries
- correct tax codes
- validity of customers' VAT numbers
- validity of suppliers' VAT numbers
- deviating VAT percentages

Revenue audits

Revenue audits - why?

- Revenue have recently identified that they will be performing Revenue audits on all companies that have not had a revenue audit performed on them in the last 5 years. This means a number of companies will be receiving notifications of Revenue audits.
- the interest and penalties on any findings that the Revenue identify can be quite significant, with interest between 8-10% and penalties ranging from 15%-100% dependent on co-operation and category of default. These penalties can be reduced to as low as 3%-10% if a company discloses before receipt of a notification.
- development of Revenue audit solution - an example of analytics to be run are noted below:
- invoicing gap detection
- detection of non-deductible VAT/corporation tax items e.g. food and entertainment (key word searches)
- errors in VAT rates on products/services
- weekend postings
- sales with no customer numbers, etc
- **potential client – all clients**

Penalty table	Category of default	Qualifying disclosure		No qualifying disclosure	Category of default	No co-operation	Co-operation
All defaults where there is qualifying disclosure	Penalty table of defaults that occurred on or after 24/12/2008	Prompted qualifying disclosure and co-operation	Unprompted qualifying disclosure and co-operation	All defaults where there is no qualifying disclosure	Careless behaviour without significant consequences	20%	15%
All qualifying disclosures in this category	Careless behaviour without significant consequences	10%	3%		Careless behaviour with significant consequences	40%	30%
First qualifying disclosure in these categories	Careless behaviour with significant consequences	20%	5%		Deliberate behaviour	100%	75%
	Deliberate behaviour	50%	10%				