

Your Issues

Our Solution

Delivering Results



# Yield and Anti-Fraud Protection

**Uncover** insights you never  
thought were possible.

Tax and welfare agencies worldwide strive to increase compliance, prevent improper payments and reduce errors. Now Capgemini's solutions, based on SAS technology, help them to achieve these goals more effectively than ever.





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Make your compliance intelligence led



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## Time to **close** the tax and revenue gap

The game has changed since the onset of the financial crisis. Governments aiming to reduce budget deficits can only deliver so much through spending cuts. It is now even more vital that tax agencies ensure individuals and businesses pay the tax they owe, and that welfare fraud and error are minimized.

The difficult economic conditions are just the start. There are five further factors contributing to tax and welfare non-compliance:

- **Physical mobility**, both at national and international levels, makes it more difficult to correctly assess liabilities or track taxpayers
- Groups other than organized criminals are using **social networking** to share information about tax avoidance activities

- **Anti-fraud sophistication** in private sector financial institutions is leading organized criminals to target the public sector
- Availability of public sector **online channels** makes it easier and cheaper for criminals to target tax agencies from anywhere in the world
- A sophisticated and “industrialized” **criminal class** has emerged that is increasingly agile and resourceful

All of this demands what the UK National Fraud Authority describes as a ‘more intelligence-led’ stance on fraud. Its publication “A fresh approach to combating fraud in the public sector”<sup>1</sup> compared the public and private sectors’ response to tackling fraud. It observed that the private sector’s main focus was on fraud prevention. This consisted of identifying high risk activities and refusing the provision of a service or

*Leading practice consists of identifying high risk activities and refusing the provision of a service or product, or flagging high risk cases for investigation before a transaction was completed.*

product, or flagging high risk cases for investigation before a transaction was completed—so called upstream activities. The report identified this as a stark contrast to the public sector approach, which is predominantly concerned with detection, investigation, and prosecution of fraud that has already been committed—so called downstream activities. The report urged more widespread use of private sector upstream techniques.

<sup>1</sup> <http://www.eurim.org.uk/activities/psd/A-fresh-approach-to-combating-fraud-in-the-public-sector.pdf>





To tackle fraud, governments need to adopt a targeted and holistic approach that combines these upstream and downstream approaches.

To tackle fraud, governments need to adopt a targeted and holistic approach that combines these upstream and downstream approaches. Downstream measures have a quick impact and remove tax avoiders or benefit fraudsters who are already in the system. For example, the Australian Taxation Office reported that for the quarter July 1, 2011 through September 30, 2011, 356 people and 122 companies were prosecuted and convicted of taxation and superannuation offences. Twelve people received custodial sentences ranging from 2 months to 5 years, removing fraudsters from the system<sup>2</sup>.

This downstream approach can be combined with use of technology and evolving business processes upstream to detect and prevent evasion. Upstream and downstream measures can evolve constantly to fight tax evaders, benefit fraudsters and criminals who are increasingly skillful and well-informed.



<sup>2</sup> <http://www.ato.gov.au/corporate/content.aspx?doc=/content/00299856.htm>



## Emerging **best** practices for tax and welfare agencies

We are already seeing some agencies around the world adopting leading practice capabilities which combine upstream and downstream techniques. These include:

- **Data matching:** Data is collected from multiple government agencies and private sector sources, cleansed, and then analyzed to reveal possible instances of fraud
- **Modeling and alert detection:** Statistical methods are used to identify and understand new methods of fraud. These methods include the use of risk prediction algorithms for known patterns of fraud, anomaly detection, transaction monitoring, advanced analytics, and social networking analysis for unknown and complex patterns and associations. Tax agencies are also exploring the use of unstructured data
- **Visualization:** Visual representations enable analysts and case officers to see the connections

among entities quickly, such as a tax professional and a series of tax payers using the same avoidance vehicles

- **Case management and workflow:** High risk electronic case files can be triaged to the relevant case officer anywhere within the taxing area using business rules. Automated workflow triggers prompt the officer to progress the case in a timely manner
- **Results feedback loop:** Analysis of results on a case-by-case basis identifies potential improvements to risk rules, predictive models, compliance interventions, and compliance strategy

Of course, while these capabilities focus on how the agencies themselves work, making it easy for citizens to understand their obligations and comply with the rules is another area that demands the right approach. Processes

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must make it difficult for taxpayers to avoid compliance. Systems must also be flexible enough to allow prevention strategies, detection strategies, and business rules to change regularly. This will prevent agencies from being out-manuevered by the constantly evolving tactics of tax evaders.



## Tackling non-compliance, **fraud** and error

Can you spot the fraudsters, tax evaders and criminals? While tax and welfare regimes differ between countries (and within regions or states), there are a number of common activities that transcend borders and boundaries

### The most common types of non-compliant or fraudulent behavior include:

- **Under-declared income** – a small business owner finds ways to avoid declaring income, for example by receiving payment in cash
- **Abuse of company status** – use of a business entity, for example an incorporated company, to hide income or liabilities
- **False information** – the welfare claimant provides false or misleading information on an application or fails to provide information on a change of circumstance to claim benefits to which they are not entitled
- **Identity theft** – a criminal fraudulently obtains and uses an unsuspecting individual's name, card number or other personal information to create a fictitious benefit claim, which is paid by check and money laundered
- **Repayment fraud** – a criminal sets up a fictitious business and registers it for VAT. This business pays some VAT to establish credibility and then submits a series of large fictitious repayment claims before closing down



## Turn data into **insight**

Fraud and non compliance come in many guises. At one end of the spectrum tax and welfare agencies must deal with genuine error, either by the customer or an official. At the other end is criminal attack. In between the two is a range of non-compliant behavior, including a failure to take reasonable care, and deliberate, opportunistic or systematic tax evasion and welfare fraud.

*It is crucial to gain an understanding of the types of customer behavior across the spectrum and the motivation for them.*

It is crucial to gain an understanding of the types of customer behavior across the spectrum and the motivation for them. Only with this understanding can the risk of tax non-compliance and welfare fraud and error be mitigated.

With proven expertise in both tax and welfare, Capgemini provides a comprehensive offer to agencies looking for new and more effective tools to fight fraud. Our Yield and Anti-Fraud Protection solutions are enabled by technology from our strategic partner SAS, a leader in business analytics software and services.

Our analytics-based solutions enable agencies to:

- Understand the characteristics of a fraud and how it works
- Automate vast amounts of complex analysis, using data from different internal systems linked to external sources to highlight possible instances of fraud

- Uncover hidden relationships between organizations and individuals
- Carry out risk profiling using an evolving combination of factors, such as risk rules, social network analysis and predictive analytics
- Prioritize cases for investigation according to the effort required to investigate, and the possible return
- Automate the referral and distribution of cases to investigators and track the progress of a case, removing manual coordination effort
- Put in place the changes in process, roles, governance and reporting required to transform operations

We offer the most powerful solutions currently available for tackling fraud in tax and welfare. Agencies can quickly turn billions of data points into powerful insights that greatly enhance their ability to identify tax evaders, welfare fraudsters and criminals, and to intervene.



# Our Solution

New tools in the fight against fraud



# New tools in the fight against fraud



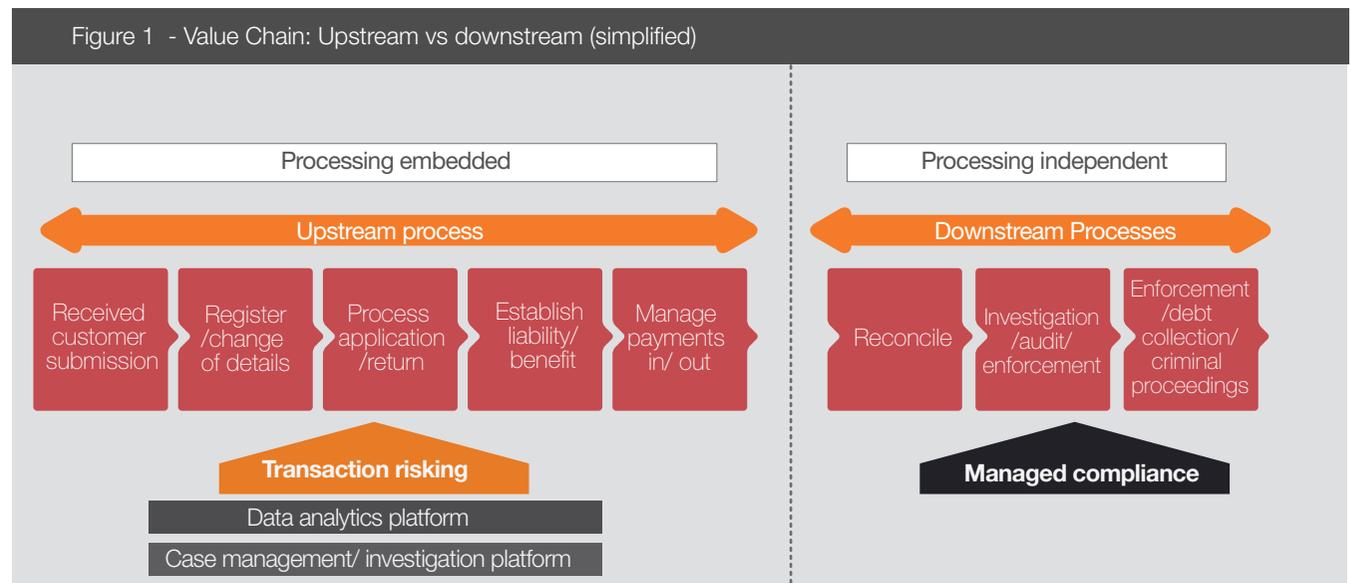
## Making fraud detection **systematic**, and intelligence led

How do agencies transform their performance to increase tax yield or cut fraudulent welfare payments?

As we have seen, identifying and stopping fraudsters in their tracks has traditionally been based on a 'process now, check later' approach with a heavy reliance on downstream post-event risk assessment of the whole population (see figure 1). Tax and welfare agencies have often performed this risk assessment using risk rules that trigger high risk cases based on tax or benefit types. Case selection is carried out at local office level with little ability to move work between offices.

Capgemini is transforming this situation. Our leading practice solutions allow more efficient and effective downstream risk assessment of the whole population. How? By creating a much richer picture of the taxpayer or welfare recipient's position across multiple taxes and / or benefits.

Figure 1 - Value Chain: Upstream vs downstream (simplified)





This is achieved by:

- Matching data in order to look at the complete view of taxpayer's position (multiple taxes)
- Linking tax data and external data sources
- Using more sophisticated analytical techniques, such as social network analysis, to build networks of entities to understand the nature of a fraud; identify campaigns and generate risk flags for a campaign
- Providing visualization techniques to enable the case investigator to quickly spot the connections between activities, for example a tax agent and a series of taxpayers who are all using the same avoidance vehicle
- Case referral and workflow systems provide the ability to triage the case and direct it to the right case investigator anywhere within the country

Our solutions can also be used by tax and welfare agencies to move compliance activities "upstream". These upstream

activities are focused on preventing fraud or criminal attack before it takes place. This is achieved by applying predictive analytics at the point of interaction with the taxpayer or benefit recipient to identify and immediately investigate high risk activities. This reduces the cost and effort more typically expended on the downstream activities of detection, investigation and prosecution of fraud that has already been committed. Examples include the risk assessment of a benefit recipient when claiming a benefit or reporting a change of circumstance, or when a taxpayer files a tax return or claims a tax repayment.

Implementing these leading practice solutions requires a range of new enterprise-wide compliance capabilities that can be configured at the different points of the value chain. Many of the new capabilities are highly technologically enabled, such as the ability to link data to create networks, network visualization, and case management.

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However, experience from a number of organizations suggests that technology is only part of the challenge. Securing access to relevant data sets, cleansing the data, and being able to make meaningful linkages between entities is particularly complex. So too is the use of predictive analytics within upstream businesses processes, which requires significant process change, new skills and roles, and potentially policy change.

Capgemini draws on extensive experience as a transformation and business analytics partner to help tax and welfare agencies bring about this process change.



## Capgemini and SAS: A **strategic** partnership for public sector agencies

Capgemini's strategic partnership with SAS in tax and welfare fraud offers public sector agencies an unbeatable combination of industry expertise and market-leading technology.

Capgemini brings unrivalled subject matter expertise in tax and welfare to the development of our solutions. We work with dozens of tax and social security agencies in North America, Europe, Australia, India and Brazil to modernize processes and systems. We are also helping to put in place more effective solutions to help identify and prevent tax non-compliance and welfare fraud and error. We understand the types of fraud that are perpetrated, how to spot them, and how to address them.

SAS is the market leader in business analytics, with a range of technology products that have been proven to help in the fight against fraud in the private and public sectors. Its Fraud Framework brings massive analytic firepower to the problem of detecting fraud in vast quantities of data, and allows agencies to stay ahead of changing risk profiles through the flexible and intelligent application of business rules and workflow.

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## Transformation, one step at a time

We recognize that every agency is at a different stage in its transformation journey. That's why our solutions offer a phased approach to transformation based on five distinct steps.

Following a low cost initial assessment phase, each ensuing phase of activity returns additional tax yield or benefit savings that more than cover the cost of the next phase. This enables agencies to fund a transformation in their yield and anti-fraud protection capabilities through savings, with only a small amount of upfront investment.

- 1. Value Discovery** – comprises a capability assessment and a vision workshop to build senior management alignment around the end state, a roadmap to get there and the indicative business case. This phase enhances your understanding of what is possible and points out key gaps in capability and where to start. It identifies the focus for a pilot to further strengthen the business case.
- 2. Pilot** – puts the value proposition to the test and identifies initial returns within a six month timeframe. The pilot is focused on a particular type of fraud, e.g.

small business tax evasion involving under-declaration of profit or benefit fraud involving falsification of earnings income. SAS software is installed and configured, data is loaded, risk rules and other models developed and an initial batch of high risk cases identified. The pilot proves the effectiveness of applying new data sources and new modeling techniques enabled by SAS technology. For example it augments traditional risk rules with anomaly detection or social network analysis, strengthening the business case. It starts to build internal capability to use the new tools and it identifies wider implications for the new operating model and design of the rollout.

- 3. Target Operating Model** – we define the end state capabilities, processes and procedures, technical and data architecture and organization structure and governance required to deliver reduced tax non-compliance and / or welfare benefit fraud. When compared to the current state, this identifies the key



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changes required. Development of a business case and an understanding of key priorities and constraints informs the order in which the new capabilities should be built. For instance a welfare agency might want to put much greater focus on upfront prevention of

fraudulent claims. This new model requires significant business change including a cross-benefit identity and risk assessment capability; predictive analytics at the point of application or change of circumstances; and creation of new rapid interventions to address opportunistic fraud.

- 4. Solution Implementation** – following detailed design, the capabilities required to deliver benefits are put into place in successive releases. Each release comprises detailed design, build, test and roll out. This covers process, organization and governance, IT and data.
- 5. Assurance** – this can be carried out at any point in the program. For example our tried and tested methodology allows us to assess whether the business and IT architecture is robust and future proof. Will it deliver the required business outcomes? Is the program currently set up with appropriate

governance and mechanisms to highlight and address critical business risks and issues as they emerge?

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## Benefits that count

The figures really do add up.

*We have already helped protect billions of Euros of revenue, generating a return on investment of at least 25 times for our clients.*

Our experience shows that there is real value in using analytics to assess risk, unearth evidence of possible non-compliance or fraud, and select cases for investigation. This type of analytics allows resources to be focused on the cases that bring the highest return. Upstream predictive analytics further reduces improper payments by flagging or

stopping high-risk transactions at the point of interaction with the taxpayer or welfare recipient.

Each country's tax and welfare regime and processes requires an individual approach to the way in which our Yield and Anti-Fraud Protection solutions are tailored and implemented. However, typical business outcomes include the ability to:

- Identify patterns of error and design these out through changes, for example to policy, process, forms and guidance
- Significantly increase the "hit rate" (the percentage of investigations that identifies a positive change in amount owed) over time – through matching of internal and external data sources to create a more complete view of the taxpayer/benefit recipient; use of more sophisticated

modeling techniques; and implementation of effective feedback loops

- Target investigations on high risk and/or high value complex cases
- Design and run campaigns using outbound text, email and phone; desk based checks and short interventions for lower risk or lower value cases
- Automate packaging of risk assessment case files and case referral and progression, reducing manual co-ordination and driving up productivity
- Move work anywhere within the country, optimizing the use of investigation resource
- Deter tax non-compliance and welfare fraud as successful cases are publicized

These outcomes accrue as a result of our solutions being fully integrated at every stage of the yield and anti-fraud protection value chain.



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## A case study: **Transforming** risk assessment at HMRC

Capgemini delivered the award-winning strategic risking system “Connect” for HM Revenue & Customs, the UK tax administration.

Connect takes information from 30 different data sources, cross-matches one billion internal and third party data items, and uncovers hidden relationships across organizations, customers and their associated data links (bank interest, lifestyle indicators and stated tax liability). It enables HMRC analysts to produce target profiles and risk models to risk assess transactions and generate campaigns and cases for investigation, which are fed into HMRC’s case management solution. HMRC has used Connect in their work to recover £1.4bn additional tax yield to-date.

Connect allows HMRC to focus skilled resources on businesses, individuals and sectors that pose the highest

risk of evasion or criminal activity. Connect produces in minutes what previously took months of research, or was simply not possible to do manually or on a volume basis. For the first time, HMRC can see all the information it has about a taxpayer at the touch of a button.

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HMRC has used Connect to enable targeted campaigns which incentivize mass voluntary disclosures. Skilled staff concentrate on tackling evasion rather than correcting errors, which historically took too much time, and which is now tackled in other ways. Streamlined risk and intelligence operations are delivered by 40% fewer staff. The program to industrialize Connect included HMRC’s IT and compliance community, Capgemini for program management, system and service integration, and Ecosystem partners, including SAS for data analysis and data mining products and tools. We continue to work with HMRC to run and further enhance Connect.





## Find out more

Find out how Capgemini's Yield and Anti-Fraud Protection solutions can help your organization increase compliance with tax laws and prevent welfare-payment fraud and errors.

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## About Capgemini

With more than 125,000 people in 44 countries, Capgemini is one of the world's foremost providers of consulting, technology and outsourcing services. The Group reported 2012 global revenues of EUR 10.3 billion.

Together with its clients, Capgemini creates and delivers business and technology solutions that fit their needs and drive the results they want. A deeply multicultural organization, Capgemini has developed its own way of working, the Collaborative Business Experience™, and draws on Rightshore®, its worldwide delivery model.

Learn more about us at

[www.capgemini.com](http://www.capgemini.com)

## About SAS

SAS is the leader in business analytics software and services, and the largest independent vendor in the business intelligence market. Through innovative solutions, SAS helps customers at more than 60,000 sites improve performance and deliver value by making better decisions faster. Since 1976 SAS has been giving customers around the world The Power to Know®.

## Public Sector

Capgemini, a transformation partner for public organizations globally.

With a worldwide network of more than 12,000 experts, Capgemini helps public organizations transform, particularly in the areas of tax & welfare, public security, and cities and regional government. With a portfolio of clients covering all areas of public service, Capgemini provides tailored solutions to the main players in this sector internationally.

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