Just in Time

EBA Analysis of RegTech in the EU Financial Sector:

Deep Dives into Credit Worthiness Assessment and ICT Security

Nov 2021

Executive Summary

EBA aims at establishing a common European approach towards technological innovation in order to facilitate the adoption of new technologies by the Financial Institutions and Providers (FinTech), Regulators (RegTech) and Supervisory organizations (SupTech).

- In this context, a **few segments of application for RegTech solutions** have been **identified** as the **most important** and the **most fast-growing**.

- The purpose of the presentation is to give an overview of two of these segments: **creditworthiness assessment** and **ICT security**. For each of these two areas the technologies adopted are described along with their stage of development. Moreover, benefits, challenges and risks associated with these segments are briefly presented from both the perspective of Financial Institutions and RegTech providers.

- As far as it concerns ICT security, the Process Chain and the Added Value are highlighted as seen from FIs and RegTech providers. Furthermore, for this specific area, a case study is reported.

At a Glance

01

Introduction
CWA & ICT Security

Introduction
CWA & ICT Security

The EBA reports identifies five areas with a relevant impact from RegTech solutions.
In the previous JIT [02] an overview of the main segments has already been given and this work focuses on the two areas listed below.

Segment	Goal	Benefits
Creditworthiness Assessment (Assess which clients are suitable for lending products)	Manage credit risk and prevent over-indebtedness of consumers	Greater accuracy and speed, fewer human error, shorter time to market, enhanced access to credit, reduction in the risks of false negatives
ICT security (Protect and guarantee the privacy of information of ICT systems)	Facilitate compliance with ICT-related regulatory requirements, define requirements for ICT risk management and ICT third party management, ensure consistent approach	Enhanced risk management, improved services through automatic and often real time monitoring, reduced human error, increased effectiveness

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02

Creditworthiness Assessment

Overview

Stage of Development, Technologies and Data Sources

Benefits, Challenges and Risks

Creditworthiness Assessment 1/3
Overview

Purpose

The goal of creditworthiness assessment (CWA) is to assess **which clients are suitable for lending products**. Robust and accurate CWA when originating loans is crucial to credit risk management and to **prevent over-indebtedness of consumers**, while **ensuring solid protection** of the interest of borrowers.

EBA's Guidelines

CWA is a main element of the EBA's comprehensive **Guidelines on loan origination and monitoring**. The EBA Guidelines set out **criteria for the use of automated statistical models** for credit-granting purposes. The EBA Guidelines cover criteria for creditors to follow in loan origination and monitoring and pay specific attention to the use of automated models for credit decision-making and credit-granting.

Regulatory Framework

The **obligation to assess the creditworthiness** of individuals is one of the regulatory tools usually considered a **duty of 'responsible lending'** and is included in the **Consumer Credit Directive and the Mortgage Credit Directive** and is further specified in the EBA Guidelines on loan origination and monitoring.

EBA's Goal

The objective of these EBA Guidelines, which have applied since June 2021, is to **ensure that the CWA of the borrower is robust**, **accurate** and relies on **adequate information**, while ensuring that the **institutions' practices are compliant** with consumer **protection requirements**.
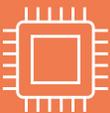
Creditworthiness Assessment 2/3
Stage of Development, Technologies and Data Sources

Stage of Development

FIs' development of CWA RegTech solutions remains at an **early stage** and most FIs develop CWA solutions **in-house**, without involving external partners. Nowadays, CWA is mainly part of the **traditional *risk assessment system:*** FIs have been using traditional data analytics solutions for many years to evaluate credit risks and to determine whether a person or SME can be granted credit. Introducing scoring models based on new technologies would imply developing a new core banking system with a redesign of the CWA process.

Technologies

Big data, **cloud computing**, **AI** technologies (e.g., Machine Learning (ML) and NLP) and increased **computational power** have prompted the emergence of **alternative credit- scoring models** to assess creditworthiness, and CWA RegTech solutions, exploiting these technologies, might be more used in the future.

The use of AI is seen to enable more accurate scoring and to allow for improved access to credit by reducing the risks and the number of false negatives.

Data Sources

Credit-scoring models to assess CWA might rely on a variety of data sources:

- **Financial** data

- **Behavioral** data

- **Alternative** data as for example geo-location and web data; at this stage, social media data are not used yet.

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Creditworthiness Assessment 3/3
Benefits, Challenges and Risks

Both FIs and RegTech providers have identified lots of benefits that could be summarized in the concepts listed below. Several challenges and risks have been highlighted too, not including the ones that might arise for consumers.

Main Benefits:

Greater accuracy and speed which translate into better performances and reduced costs

Increased efficiency with fewer human errors which could be linked to manual validations

Enhanced access to credit reducing the risks of false negatives

Main Challenges and Risks:

Data protection, security and privacy (any issues could lead to important reputational risks for FIs

Lack of guidance by regulators and supervisors regarding new technologies and lack of harmonized regulatory framework across the EU

Data availability and integration with legacy systems

03

ICT Security - RegTech Solutions

Overview

Limitations, Risks, Support and Benefits

Process Chain and Added Value

Benefits and Challenges

Case study

ICT Security - RegTech Solutions 1/5
Overview

Emerging technologies are been developed at an ever-accelerating pace, determining **a significant their adoption by FIs and RegTech providers for ICT-related solutions**.

Once more, the technologies most in demand are **AI-related** (ML and NLP) and **Data Transfer Protocols**. The increasing use of technology-based services have led to an **unavoidable growing need of requirements and solutions in order to guarantee data protection**.

The recent survey emphasizes the resulting need of **increasingly up-to-date surveillance and governance requirements**; in this direction, to safely accompany the development process over the last years, the EBA has defined several **ICT-related guidelines and recommendations for the financial sector**.

2019 — EBA have revised and issued guidelines in order to define the methodologies and the requirements designed to assess the **ICT and security risk** in the financial sector.

2020 — The European Commission published a Digital Operational Resilience Act defining the requirements for the ICT risk management.

2021 — ICT-related RegTech tools involves the use of mathematical models, **ensuring the anonymity**.

ICT Security - RegTech Solutions 2/5
Limitations, Risks, Support and Benefits

Limitations

Most of ICT RegTech solutions are **still under development**. According to FIs, the **automation level achieved so far by RegTech services is still limited** and the human intervention is still required (recording information, collecting qualitative data, evaluating the results)

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Risks

ICT Cyber risk is identified, for most of the FIs, as **the most relevant risk associated with the use of RegTech solutions**. Its mitigation still relies on manual intervention and backup processes. Legal/conduct risk and reputational risks are also relevant

2

ICT Security

Benefits

The association of the solutions service with the security monitoring results in **advanced automatic monitoring tools that could even be real-time**, providing warnings and incident reporting services. This represents key contribution in **the identification of vulnerabilities in ICT systems**

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Support

RegTech services could support ICT security:
- Restricting access and actions for authorized users only
- Limiting data circulation
- Classifying incidents
- Providing threat intelligence and security dashboard
- Providing a secure audit trail and flexible reporting

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Process Chain and Added Value

Here below, the estimated **added value of the RegTech solutions within the ICT-related area** from **FIs and RegTech providers' perspective** along 5 main drivers
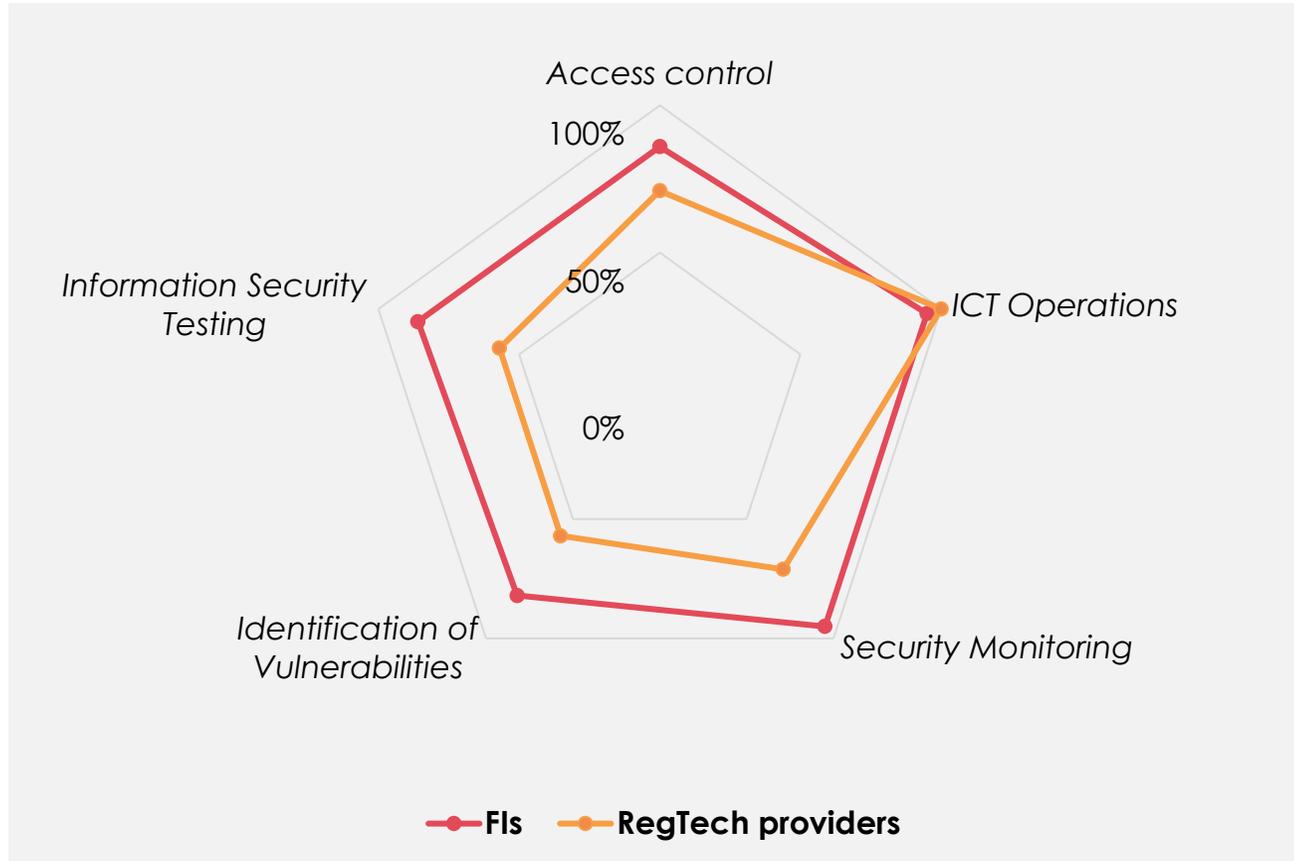
FIs

- Increased **effectiveness**
- Increased **efficiency**

- Real-time **monitoring**
- Improved **data quality**

RegTech providers

- Increased **effectiveness**
- Increased **efficiency**
- Cost **savings**

- Real-time **monitoring**
- Improved **data quality**
- Ease of **integration** with existing systems

High-impact   Medium/ Low-impact

ICT Security - RegTech Solutions 4/5

Benefits and Challenges

Potential benefits and challenges which can be associated with the use of ICT Security RegTech Solutions are depicted by EBA as follows:

	FI's Perspective	**RegTech Providers**
Benefits	Enhanced risk management Real-time monitoring Increased effectiveness Improved data quality	Support in addressing ongoing regulatory changes Organizing complex information Increasing effectiveness
Challenges	Data privacy and Protection issues Cyber security threats Data quality issues Lack of interoperability	Cost of user acquisition Lack of regulatory standards Changes in national and international regulation Data privacy and protection issues

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ICT Security - RegTech Solutions 5/5

Case Study

To simplify the ICT risk management, RegTech provider focuses on the possibility to develop a **new platform that helps customers in making informed decisions**, in line with regulatory requirements and standards.

This platform should deal with ICT-related RegTech solutions, providing a set of **customized verification activities** that help assisting customers through the implementation of information management security system. The **desired outcome** is **guaranteeing transparency** at **organization security management** level.

Company's perspective

Providing **automated solutions** and translating regulatory requirements into control set. Nowadays, this activity is performed by a dedicated team, but in the future this task is expected to be conducted through AI solutions.

Customer's perspective

Customers will be able to **create easily an assessment**, by answering to specific questions in accordance with the chosen control set.
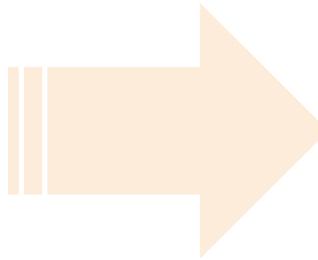
Objective

- Making customers assess their **current maturity level** and compliance with specific regulatory requirements
- **Simplifying, digitalizing, automating** and **reducing** the **effort** for the compliance assessment
- Supporting **smart workflows** management
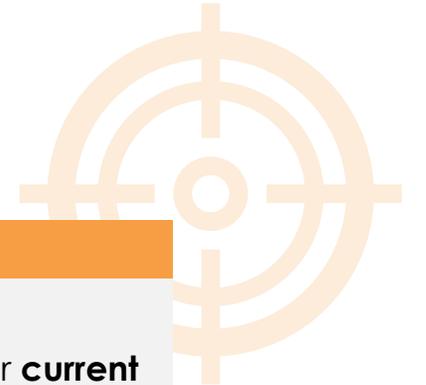
Sources and Literature

[01] **European Banking Authority.** *Eba Analysis Of Regtech In The Eu Financial Sector*. EBA, July 2021.

[02] **Iason Consulting Ltd**. *EBA Analysis of RegTech in the EU Financial Sector*. Just in Time, September 2021.

Company Profile

Iason is an international firm that consults
Financial Institutions on Risk Management.
Iason integrates deep industry knowledge
with specialised expertise in Market, Liquidity, Funding,
Credit and Counterparty Risk, in Organisational Set-Up
and in Strategic Planning.

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