



# SupTech in Insurance Supervision

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## Background

The IAIS has identified digital innovation as a strategic theme due to its potential impact on the insurance sector and broader financial stability system.

In December 2022 the A2ii-FSI-IAIS published a joint note to explore how SupTech tools are used by insurance supervisors, from both prudential and conduct perspectives.



## SupTech refers to the use of innovative technologies by insurance supervisors to support their work

SupTech is the result of digital innovation in the financial system resulting from the emergence of advanced technologies, such as big data, artificial intelligence (AI) / machine learning (ML) and other new technologies.



# Overview of SupTech in Insurance Supervision



22 insurance supervisors, from both prudential and conduct perspectives shared their experiences with SupTech tools



38 SupTech tools were identified and classified according to their intended use.

**Prudential supervision tools** are similar as those used by the banking sector, eg e automated dashboards that show key risk indicators

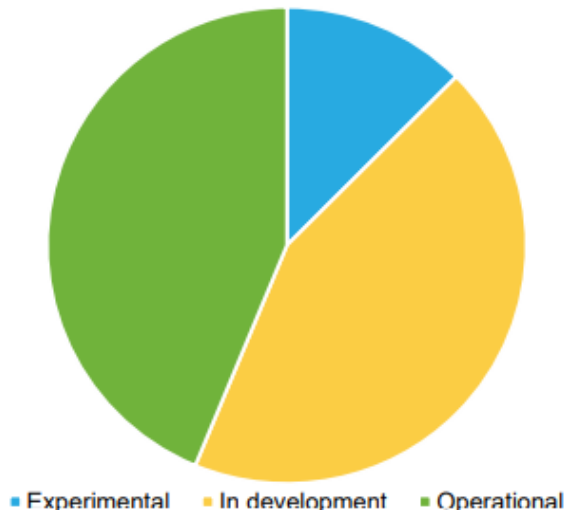
Data collection-related tools and SupTech analytics such as NLP **may be used for both**

**Conduct tools** are specific to the insurance sector, eg gathering information from insurers' websites and social media platforms to identify mis-selling practices

# SupTech tools in practice

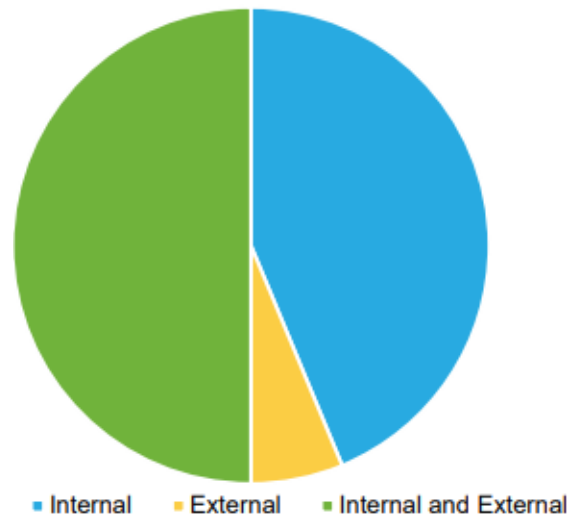
## Status

The majority of the SupTech tools for insurance supervision are either operational or in development



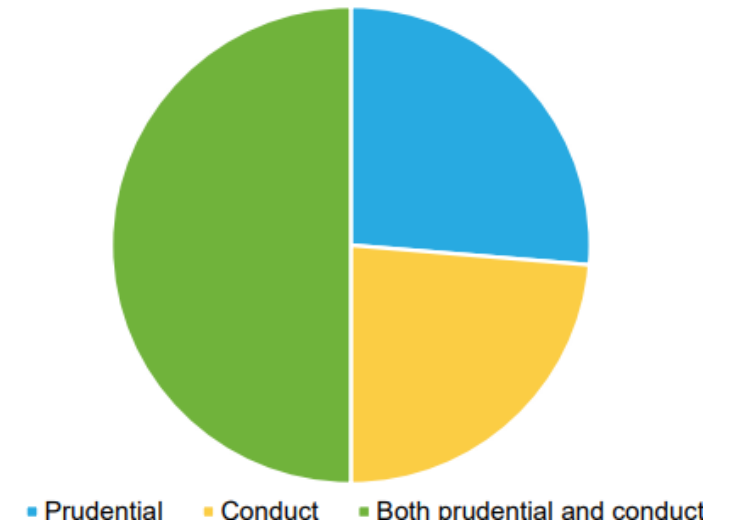
## Who developed the tools?

Most of these tools were or are being developed internally or with the help of external parties



## Classification according to their intended use

Half of the tools may be used both for prudential and conduct supervision, the rest are almost evenly split between prudential and conduct



# From data collection to analytics: Use cases

## Prudential

**Allow for more frequent and prompter monitoring**

- Singapore - analysis tool of interconnectedness between insurers and reinsurers
- France - automated analysis of technical provisions
- Switzerland - dashboards to analyse and visualise solvency risks

## Conduct

**Aim to improve the compliance assessment of insurance distribution-related activities, and classification of consumer complaints**

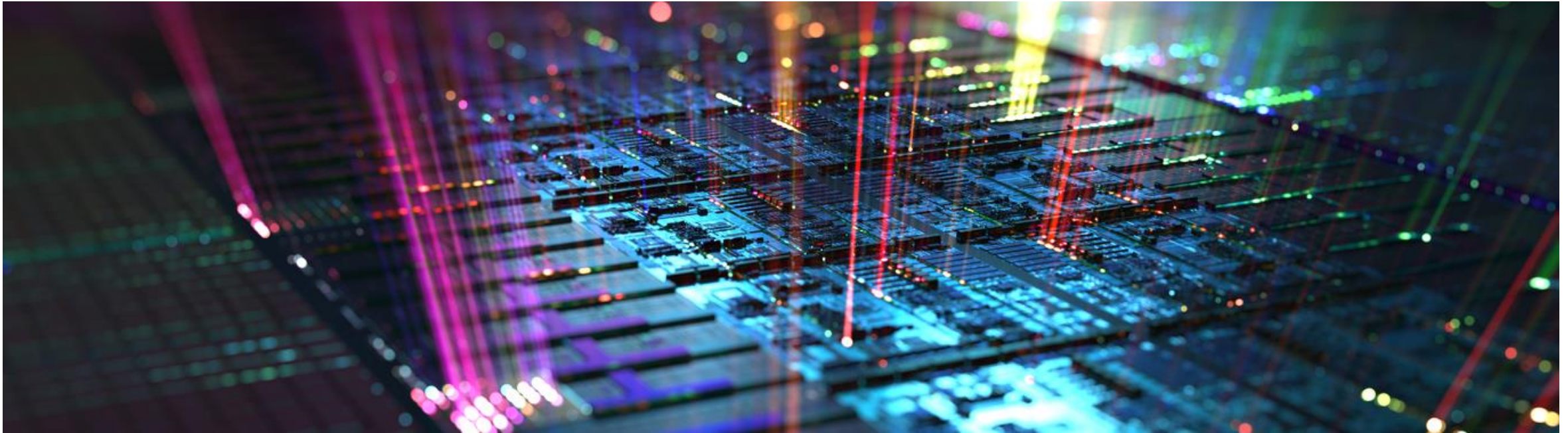
- EIOPA - tool for collecting and analysing insurance-based investment data
- Italy – tool to assess complexity and readability of insurance contracts
- France/Korea – transcribe recordings of telemarketing

## Prudential & Conduct

**These typically involve the use of NLP, for example, to analyse insurers' reports or to comb through social media posts.**

- Data repository systems
- Regulatory compliance applications
- Notification systems
- Pattern recognition tools

EMDE are mostly using commercial off-the shelf supotech solutions for data collection and regulatory reporting



# Developing and using Suptech solutions

## *Approaches*

- Top-down vs bottom-up approach
- Using innovative channels to solicit ideas from supervisory staff
- Foster a culture of innovation
- Measure efficiency and effectiveness

## *Challenges*

- Identify the appropriate SupTech
- Resources to follow-up on findings from the tools
- Culture-related challenges
- Data quality, accuracy and availability + technology
- Reputational risk and practical implementation





## Insurance supervisors are continuing to explore SupTech tools

Investment in these technologies require:

- Corresponding digital and data expertise;
- A culture of innovation based on data-driven decision-making, openness to experimentation and challenging “legacy thinking”
- Capacity building; and
- Acquiring new talent and increasing the data and technical literacy.





Thank you