

Tailored IoT & BigData Sandboxes and Testbeds for Smart, Autonomous and Personalized Services in the European Finance and Insurance Services Ecosystem

Infinitech

D2.2-User Stories and Stakeholders' Requirements - II

Title	D2.2 - User Stories and Stakeholders' Requirements - II
Revision Number	1.2
Task reference	T2.1
Lead Beneficiary	UNP
Responsible	Tiago Teixeira
Partners	ABILAB AGRO AKTIF ATOS BANKIA BOC BOI BOS BPFI CTAG DYN FI FTSG GEN GFT HPE ISPRINT JRC LIB NBG NOVA PI PRIVE RB SIA SILO UNP WEA
Deliverable Type	Report
Dissemination Level	PU
Due Date	2020-09-30 [M12]
Delivered Date	2020-12-10
Internal Reviewers	GFT HPE
Quality Assurance	INNOV
Acceptance	WP Leader Accepted and/or Coordinator Accepted
EC Project Officer	Pierre-Paul Sondag
Programme	HORIZON 2020 - ICT-11-2018



This project has received funding from the European Union's horizon 2020 research and innovation programme under Grant Agreement no 856632

Contributing Partners

Partner	Role ¹	Author(s) ²	Section(s)
UNP	Lead Beneficiary		All sections
ABILAB	Contributor		3. 4. 5. 6. 7. 8.
AGRO	Contributor		3. 4. 5. 6. 7. 8.
AKTIF	Contributor		3. 4. 5. 6. 7. 8.
ATOS	Contributor		3. 4. 5. 6. 7. 8.
BANKIA	Contributor		3. 4. 5. 6. 7. 8.
BOC	Contributor		3. 4. 5. 6. 7. 8.
BOI	Contributor		3. 4. 5. 6. 7. 8.
BOS	Contributor		3. 4. 5. 6. 7. 8.
BPFI	Contributor		3. 4. 5. 6. 7. 8.
CTAG	Contributor		3. 4. 5. 6. 7. 8.
DYN	Contributor		3. 4. 5. 6. 7. 8.
FI	Contributor		3. 4. 5. 6. 7. 8.
FTSG	Contributor		3. 4. 5. 6. 7. 8.
GEN	Contributor		3. 4. 5. 6. 7. 8.
GFT	Contributor		3. 4. 5. 6. 7. 8.
HPE	Contributor		3. 4. 5. 6. 7. 8.
ISPRINT	Contributor		3. 4. 5. 6. 7. 8.
JRC	Contributor		3. 4. 5. 6. 7. 8.
LIB	Contributor		3. 4. 5. 6. 7. 8.
NBG	Contributor		3. 4. 5. 6. 7. 8.
NOVA	Contributor		3. 4. 5. 6. 7. 8.
PI	Contributor		3. 4. 5. 6. 7. 8.
PRIVE	Contributor		3. 4. 5. 6. 7. 8.
RB	Contributor		3. 4. 5. 6. 7. 8.
SIA	Contributor		3. 4. 5. 6. 7. 8.
SILO	Contributor		3. 4. 5. 6. 7. 8.
WEA	Contributor		3. 4. 5. 6. 7. 8.
GFT	Reviewer		All sections
HPE	Reviewer		All sections
INNOV	Quality Assurance		All sections

Revision History

Version	Date	Partners	Description
0.1	2020-12-10	UNP	ToC Version
0.2	2020-12-10	UNP and partners	Integration of multiple contributions from partners
0.3	2020-09-14	Pilot Partners	Multiple updates from the User Stories analysis
0.4	2020-10-10	UNP	Addition of the requirements section
0.5	2020-10-17	Pilot Partners	Integrations of contributions to the requirements
0.6	2020-10-18	LXS	Comments related to the identified requirements
0.7	2020-11-06	Pilot Partners	Updates to the Stakeholder Requirements
0.8	2020-11-17	UNP	Draft version for Internal Review
0.9	2020-11-25	GFT, HPE	Internal Review
1.0	2020-11-27	UNP	Version for QA
1.1	2020-12-10	INNOV	QA
1.2	2020-12-10	UNP	Final version

Executive Summary

This deliverable is the second version of a total of two deliverables which are meant to provide the outcome of Task 2.1 - User Stories and Analysis of Stakeholders' Requirements. This version of the document defines the approach used in order to collect the necessary information for Task 2.1, and the corresponding timeline, so to have the information available for the remaining tasks of the project. The pilots have defined their User Characterisation and the User Stories as the first 2 steps, as reported in this deliverable. Based on these outcomes, also as part of Task 2.1 stakeholder requirements were elicited.

The User Characterisation is meant to identify – in the view of the storyteller - jobs to be done, wanted gains and experienced pains. The User Stories are meant to provide an initial understanding on what is expected from INFINITECH in the business aspects of our stakeholders. They are a simple description of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system. Indeed, user stories are defined in the form: “As a "type of user", I want "some goal" so that "some reason”.

In this way, the INFINITECH Pilots were able to identify simple and concise User Stories that are easy to understand. Based on the Business Model Canvas (Osterwalder A. P., 2015) (Osterwalder & Pigneur, 2013) methodology, a questionnaire was created to collect information, regarding the User Characterization and User Stories, from all the INFINITECH pilots.

Upon having the User Stories collected, the elicitation of the Requirements was done. They describe the necessary functionalities that the Stakeholders feel they need and intend to use as consequence of their user stories.

This deliverable (D2.2) contains the necessary updates to the User Stories and also the elicitation of the Stakeholder Requirements.

Table of Contents

1	Introduction.....	9
1.1	Objective of the Deliverable	9
1.2	Insights from other Tasks and Deliverables.....	9
1.3	Structure	10
1.4	Updates from D2.1.....	10
2	User Story collection methodology.....	12
2.1	Approach.....	12
2.1.1	User Characterisation.....	13
2.1.2	User Stories	13
2.1.3	Stakeholder requirements.....	13
2.2	Plan of activities	14
3	User Characterisation.....	16
3.1	Jobs to be done.....	16
3.2	Gains.....	21
3.3	Pains.....	26
4	User Stories	29
4.1	User Stories: Configurable and Personalized Insurance Products.....	29
4.2	User Stories: Personalized Retail and Investment Banking Services	31
4.3	User Stories: Personalized Usage Based Insurance Products	39
4.4	User Stories: Predictive Financial Crime and Fraud Detection.....	41
4.5	User Stories: Smart, Reliable and Credible Risk Assessment Pilots	45
5	Stakeholder Requirements.....	48
5.1	Stakeholder Requirements: Shall priority.....	48
5.2	Stakeholder Requirements: Should priority	52
5.3	Stakeholder Requirements: May priority.....	54
6	Conclusions and Future Work	56
7	Appendix A: Questionnaire - User Characterisation & User Stories	58
8	Appendix B: Jobs to be done – Complete list	60
9	Appendix C: Gains – Complete list	66
10	Appendix D: Pains – Complete List.....	73
11	Appendix E: User Stories – Complete list.....	78
12	Appendix F: Stakeholder Requirements – Complete list.....	99

List of Figures

FIGURE 1 - VALUE PROPOSITION CANVAS METHODOLOGY.....	12
FIGURE 2 - APPROACH FOR THE USER STORY COLLECTION.....	13
FIGURE 3 - TASK 2.1 ACTIVITIES TIMELINE	14
FIGURE 4 - DISTRIBUTION OF THE STAKEHOLDERS' REQUIREMENTS PRIORITIES	56

List of Tables

TABLE 1 - JOBS TO BE DONE: CONFIGURABLE AND PERSONALIZED INSURANCE PRODUCTS.....	16
TABLE 2 - JOBS TO BE DONE: PERSONALIZED RETAIL AND INVESTMENT BANKING SERVICES.....	17
TABLE 3 - JOBS TO BE DONE: PERSONALIZED USAGE-BASED INSURANCE PILOTS	18
TABLE 4 - JOBS TO BE DONE: PREDICTIVE FINANCIAL CRIME AND FRAUD DETECTION PILOTS.....	19
TABLE 5 - JOBS TO BE DONE: SMART, RELIABLE AND ACCURATE RISK ASSESSMENT	20
TABLE 6 - GAINS: CONFIGURABLE AND PERSONALIZED INSURANCE PRODUCTS	21
TABLE 7 - GAINS: PERSONALIZED RETAIL AND INVESTMENT BANKING SERVICES.....	22
TABLE 8 - GAINS: PERSONALIZED USAGE-BASED INSURANCE PILOTS.....	23
TABLE 9 - GAINS: PREDICTIVE FINANCIAL CRIME AND FRAUD DETECTION PILOTS	24
TABLE 10 - GAINS: SMART, RELIABLE AND ACCURATE RISK ASSESSMENT	25
TABLE 11 - PAINS: CONFIGURABLE AND PERSONALIZED INSURANCE PRODUCTS	26
TABLE 12 - PAINS: PERSONALIZED RETAIL AND INVESTMENT BANKING SERVICES.....	26
TABLE 13 - PAINS: PERSONALIZED USAGE-BASED INSURANCE PILOTS.....	27
TABLE 14 - PAINS: PREDICTIVE FINANCIAL CRIME AND FRAUD DETECTION PILOTS.....	27
TABLE 15 - PAINS: SMART, RELIABLE AND ACCURATE RISK ASSESSMENT	28
TABLE 16 -USER STORIES: CONFIGURABLE AND PERSONALIZED INSURANCE PRODUCTS	29
TABLE 17 - USER STORIES: PERSONALIZED RETAIL AND INVESTMENT BANKING SERVICES	31
TABLE 18 - USER STORIES: PERSONALIZED USAGE BASED INSURANCE PRODUCTS.....	39
TABLE 19 - USER STORIES: PREDICTIVE FINANCIAL CRIME AND FRAUD DETECTION	41
TABLE 20 - USER STORIES: SMART, RELIABLE AND CREDIBLE RISK ASSESSMENT PILOTS.....	45
TABLE 21 - STAKEHOLDERS' REQUIREMENTS WITH SHALL PRIORITY	48
TABLE 22 - STAKEHOLDERS' REQUIREMENTS WITH SHOULD PRIORITY	52
TABLE 23 - STAKEHOLDERS' REQUIREMENTS WITH MAY PRIORITY.....	54
TABLE 24 - T2.1 OBJECTIVES AND ACCOMPLISHMENT.....	57

Abbreviations

Abbreviation	Definition
4AMLD	4th Anti Money Laundering Directive
AI	Artificial Intelligence
AML	Anti-Money Laundering
API	Application Programming Interface
ATM	Automated Teller Machine
BFM	Business Financial Management
BI	Business Intelligence
CPU	Central Processing Unit
CRO	Chief Risk Officer
DoA	Description of Action (also DoW, description of Work, PART A of Grant Agreement)
EO	End Office | Erasable Optical
ERP	Enterprise Resource Planning
ES	End System | Expert System
ESG	Environmental, Social and Governance
EU	European Union
FC	Full Colour
FI	Financial Institution
FIU	Financial Intelligence Unit
GDPR	General Data Protection Regulation
GPS	Global Positioning System
IoT	Internet of Things
KPI	Key Performance Indicator
KYC	Know Your Customer
KYB	Know Your Business
ML	Money Laundering
NLU	Natural Language Understanding
PSD	Payment Services Directive
RBS	Risk Bases Supervision
REST	Representational State Transfer
RWD	Rear Wheel Drive
SME	Small and Medium-Sized Enterprises
TF	Terrorist Financing
UW	Underwriter
VaR	Value at Risk
VAT	Value Added Tax
VIN	Vehicle Identification Number

D2.2-User Stories and Stakeholders' Requirements - II

WP

Work Package

1 Introduction

This deliverable is the second version of the User Stories and Stakeholders' Requirements' deliverable, which is the result of the work related to "Task 2.1 - User Stories and Analysis of Stakeholders' Requirements" of INFINITECH project. The project is related to the full range of services and processes in the financial and insurance sectors including KYC/ KYB (Know your Customer/Know your Business); fraud detection; customer protection asset management; personalized banking; insurance products management and recommendations; usage-based insurance and more. In this deliverable we explain the methodology defined for collecting information, in order to analyse and document User Stories and Stakeholder Requirements related to the business problems and challenges that are faced by the Pilot partners in their day-to-day activities. The "User Stories" are meant to describe the situation of each Pilot owner, providing the necessary information to identify and analyse the most important problems in these activities, gaps hindering the exploitation of available data assets, and the limitations of existing data services. This deliverable is the updated version of the deliverable D2.1.

1.1 Objective of the Deliverable

The objective of this deliverable is to provide a view on the User Stories and Requirements regarding INFINITECH stakeholders. The User Stories are meant to provide an initial understanding on what is expected from INFINITECH in the business aspects of our stakeholders and the Requirements are meant for understanding the necessary functionalities in order to meet the pilot's objectives. This deliverable is a 2nd version of a set of 2, that provides the outcome of the work carried out in Task 2.1.

This Task 2.1 - User Stories and Analysis of Stakeholders' Requirements will elicit, analyse and document stakeholders' requirements with respect to the business problems and challenges that could be confronted based on the proper exploitation of data assets. The task will cover the full range of services and processes in the financial and insurance sectors. In particular, these services will be analysed on the basis of user stories, which will identify the most important problems in these processes, gaps hindering the exploitation of available data assets, as well as limitations of existing data intensive services (e.g., legacy data warehousing and BI services). The viewpoints of all-important stakeholders will be elicited, analysed and documented, including BigData/IoT technology providers, FinTech/InsuranceTech sectors, financial and insurance organizations, BigData/IoT solutions integrators, AI experts and consults, regulatory experts and more. The requirements will be documented in a structured way and will be tracked throughout the implementation and innovation tasks of the project.

1.2 Insights from other Tasks and Deliverables

As this task is the 1st task in WP2 - Vision and Specifications for Autonomous, Intelligent and Personalized Services, it's outcome will be the baseline of the work to be carried out in the other tasks of the WP2. Each one of the tasks of WP2 is continuing the work started in this task, by going into more details with respect to several areas of information. So, the following tasks (and respective deliverables) will detail the following:

- Task 2.2: Provides details regarding the services provided by INFINITECH pilots;
 - Results of this task will be provided in D2.3 (M6) and D2.4 (M12)
- Task 2.3: Technological building blocks that will be developed in INFINITECH;

- Results of this task will be provided in D2.5 (M8) and D2.6 (M15)
- Task 2.4: Information related with Security, standards and regulatory compliance;
 - Results of this task will be provided in D2.7 (M8) and D2.8 (M15)
- Task 2.5: Details regarding Open APIs, testbeds and available Datasets;
 - Results of this task will be provided in D2.9 (M9) and D2.10 (M18)
- Task 2.6: Specification of INFINITECH's Data models
 - Results of this task will be provided in D2.11 (M9) and D2.12 (M18)
- Task 2.7: The INFINITECH's Reference Architecture.
 - Results of this task will be provided in D2.13 (M9), D2.14 (M18) and D2.15 (M24)

1.3 Structure

This Deliverable is divided into 7 main chapters:

1. *Introduction*: This chapter identifies the deliverable objectives and the relation with other tasks.
2. *User Story collection methodology*: This chapter provides a view on the approach used by the INFINITECH consortium, on how to collect information about the User Stories and how it will lead to the definition of the Stakeholder requirements.
3. *User Characterisation*: This chapter provides the outcome of the 1st step of the used approach, with a clear definition of the “Jobs to be done”, “Gains” and “Pains” identified per each pilot
4. *User Stories*: A chapter with the list of User Stories provided by INFINITECH pilots.
5. *Stakeholders' Requirements*: A Chapter containing a list of all Requirements gathered from the Stakeholders.
6. *Conclusions*: Overall conclusions from the work accomplished so far in Task 2.1.
7. *Appendixes*: List of appendixes containing the questionnaire template created for the collection of the User Stories in INFINITECH, the filled questionnaire from all the pilots, and also the complete lists of “Jobs to be done”, “Gains”, “Pains” and “User Stories”.

1.4 Updates from D2.1

The main updates and changes to this deliverable coming from D2.1 are:

1. Update to the Executive Summary and Section 1 of the Deliverable.
2. Included new “Jobs to be done” 40 and 41 to Table 5 - Jobs to be done: Smart, Reliable and Accurate Risk Assessment.
3. Included new “Gains” 55, 56 and 57 to Table 10 - Gains: Smart, Reliable and Accurate Risk Assessment.
4. Included new “Pains” 38, 39 and 40 to Table 15.
5. Included new “User Stories” 106, 107 and 108 to Table 20.

6. Included new section with all the Stakeholders' Requirements elicited.

2 User Story collection methodology

In order to identify and characterize the User Stories from all INFINITECH Pilots, we followed a clear methodology. This methodology was based on the Business Model Canvas, which is one of the most widely used models for the definition of Business Models. For this task, we used only a sub-set of the Business model canvas, dedicated to the Value Proposition. Figure 1 shows this Value proposition canvas. The Value Proposition Canvas Methodology has the purpose to collect information and in a very simple way identify the Characterization of the user within the story, by identifying 4 things: Jobs to be done, pains, gains and the objective.

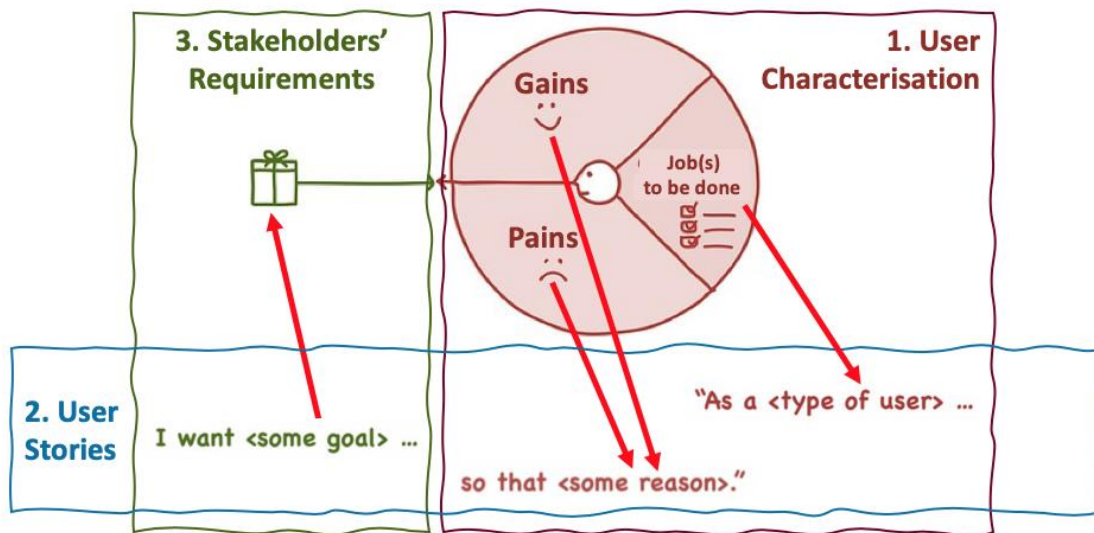


Figure 1 - Value Proposition Canvas Methodology

This Methodology has the purpose to help the Pilots identify their objectives and the reasons behind these objectives, and how these can be achieved. The Characterization is dedicated to contextualizing problems, “Job to be done”, “Pains” and “Gains” identification. The structure of the methodology provides a visual advantage by facilitating the association of the value propositions with the stakeholders' requirements.

Upon the formulation of the User Stories, the Stakeholders' Requirements elicitation was done, identifying the requirements needed from the pilots perspective. These Requirements were extracted based on the User Stories with the objective to tackle and respond to the Pains and Gains of said User Stories.

2.1 Approach

Based on the Value Proposition Canvas methodology, a questionnaire was created to collect information from all the INFINITECH pilots, specifically the Characterization of Users (step 1), the Definition of User Stories (step 2) and also the Stakeholder Requirements (step 3). Depicted in Figure 2 are the three described steps for the User Story collection and Stakeholder requirements elicitation.

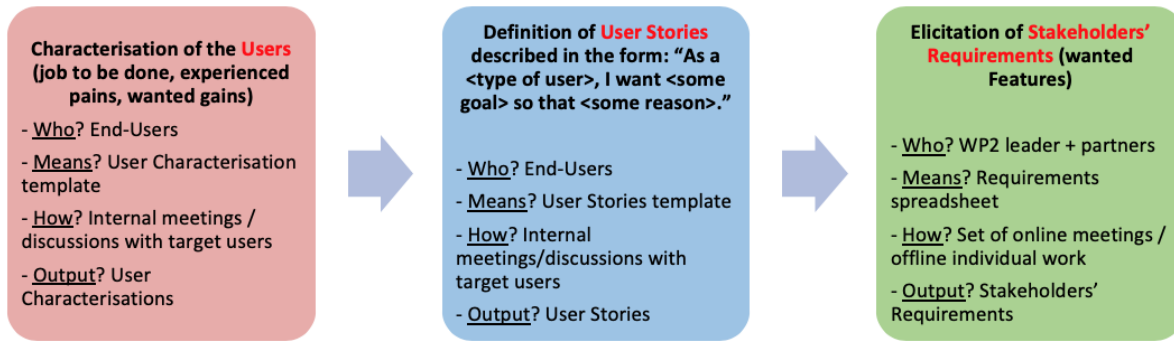


Figure 2 - Approach for the User Story collection

2.1.1 User Characterisation

The User Characterisation is the 1st step of the process, which is meant to identify – in the view of the storyteller - jobs to be done, wanted gains and experienced pains.

- *The “job(s) to be done”* describe what a specific user is trying to get done. It could be the tasks they are trying to perform and complete, the problems they are trying to solve, or the needs they are trying to satisfy. Outline in which specific context a job is done, because that may impose constraints or limitations;
- *The “Gains”* describe the benefits your User expects, desires or would be surprised by. This includes functional utility, social gains, positive emotions, and cost savings;
- *The Pains* describe negative emotions, undesired costs and situations, and risks that the User experiences or could experience before, during, and after getting the job done.

2.1.2 User Stories

The User Stories must be short, simple descriptions of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system. A User Story should be comprised of 3 main parts:

1. Type of User: Which identifies the customer job(s) to which this user story relates.
2. Goal: Describe the intended goal that the user expects to be fulfilled.
3. Reason: Identify the reason(s) to which this user story relates.

2.1.3 Stakeholder requirements

The elicitation of the Stakeholder Requirements was performed after the first version of this deliverable (D2.1) and are already present in this version. They describe the necessary functionalities that the Stakeholders feel they need and intend to use as consequence of their user stories. The Requirements present in this document represent the need of the pilots and specify what INFINITECH should offer in order to attend the pilots needs and objectives.

2.2 Plan of activities

The activities carried out as part of the task 2.1 are depicted in Figure 3, which show the activities timeline and what was requested from the consortium from the start of the project until M12 of the project. This deliverable provides the final outcome of the activities carried out by task 2.1.

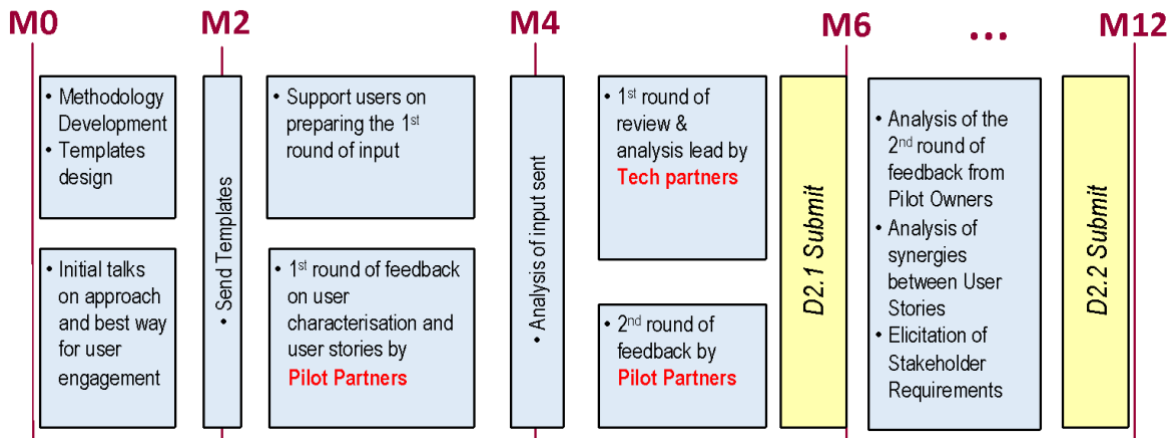


Figure 3 - Task 2.1 activities timeline

As depicted in Figure 3, the Task 2.1 activities involved the majority of partners in INFINITECH.

- The task leaders used the first weeks of the project to define the methodology and design the templates. This was complemented with a set of virtual meetings with WP2 Task leaders and coordination teams, so to align the best way for user engagement.
- The templates were then provided to all the consortium during the project Kick-of-meeting.
- Pilots were working internally in order to organize themselves, not only in terms of definition of User Stories but also managing the internal procedures and technological partners.
- Task 2.1 organised a “User Stories workshop” to all the Pilots, so to help them understand what was needed from them, and how to use the defined templates
- After a 1st round of contributions from the pilot partners, an analysis was made, so to understand from a technical standpoint, if these stories were under the scope of INFINITECH.
- The result of this analysis was provided as feedback to the pilot partners, so they could improve or enhance some of the user stories.
- A new analysis of the User Stories in order to identify possible synergies among them.
- The elicitation of the Stakeholders Requirements.
- The definition of the priorities from the pilots for their own requirements
- The definition of the priorities for the requirements generated by other pilots that also meet their objectives.

D2.2-User Stories and Stakeholders' Requirements - II

This version of the deliverable depicts the result of these activities, which include all the User Stories collected after the 2nd round of contributions from pilot partners. As a consequence of the user stories the Stakeholder Requirements were gathered from the pilots and are already present in this version of the deliverable (D2.2).

3 User Characterisation

As described previously, the User Characterisation is the 1st step of the process used in INFINITECH, which is meant to identify – in the view of the storyteller - *jobs to be done*, wanted *gains* and experienced *pains*.

The following sections provide the lists of the “Jobs to be done”, “Gains” and “Pains”, grouped by category, so to better understand the scope of each identified Job, pain or gain.

3.1 Jobs to be done

This section provides the “Jobs to be done” identified by each of the pilots in INFINITECH. This section is divided by Pilot Category, so that the “Jobs to be done” per category are grouped together.

Table 1 - Jobs to be done: Configurable and Personalized Insurance Products

JOB ID #	Jobs to be done
INF_JOB_03	A Loss adjuster helps farmers who suffered a loss to calculate the financial loss to crops (or livestock). They inspect fields and crops where a claim has been made and discuss the findings with the farmer. The damage reported will trigger the payment from the insurance company according to agreed terms and conditions.
INF_JOB_06	An Actuary deals with the measurement and management of risks and uncertainty. The probability of occurrence of a certain risk can significantly impact the overall result of a company. An Actuary assesses financial security systems (e.g. insurance) with a focus on complexity, mathematics (statistics) and underlying mechanisms (modelling). Based on the actuary's analytics, an Insurance/Reinsurance Company is able to add a price tag to a certain risk with the ultimate goal to develop and sell more comprehensible products.
INF_JOB_09	An insurance company needs to update the risks of its SME clients, in real time, to assess the changes that have occurred in the SME and increase customer retention with right coverage and premium levels.
INF_JOB_10	An insurance company realizes that the coverage of its SME clients has become obsolete due to its constant evolution and needs to identify new insurance needs to (a) cross-selling (b) reach its customers with the perfect product in the right time
INF_JOB_11	An Underwriter (UW) analyses risk in insurance proposals and determines policy terms for his/her client. On the basis of statistical information provided by the Actuary, the UW calculates premiums and recommends the wording of policies. The UW is also responsible to collect background information and to assess the overall risk of the business he is about to write. UWs are in close contact with insurance brokers and direct customers.
INF_JOB_20	Insurance brokers are responsible for identifying and organising suitable insurance cover for commercial organisations and private clients (e.g. agricultural insurance companies, agricultural holdings, food processing). Brokers discuss and assess clients' current and future insurance needs based

	on risk profile, market data and portfolio information. The broker prepares reports for the insurance underwriter and renews or amends existing policies for the client.
INF_JOB_31	The insurance company needs to improve its subscription process since this is inaccurate and inefficient. It is inaccurate because it cannot verify that the data that has been entered is one hundred percent correct and inefficient because it has a high cost.

Table 2 - Jobs to be done: Personalized Retail and Investment Banking Services

JOB ID #	Jobs to be done
INF_JOB_05	AI constructed portfolio proposition: a financial advisor/institution needs to propose a new bespoke portfolio to a client. The channel through which this task is carried out is either an advisor, relationship manager or a software application which the client accesses directly. The portfolio needs to be a better version of the current one and be tailored to the client's preferences or advisor's suggestions.
INF_JOB_12	Bank #1: Facilitate 'trustworthiness' that will enhance Bank brand and enable sharing business models. Banks need to satisfy customer demand for new digital customer experiences making their lives easier and developing a trusted ecosystem is good for all parties.
INF_JOB_13	Creation of a Smart Virtual Advisor that will provide advice to SMEs by combining a set of Business Financial Management tools: SMEs today cannot focus on business development/growth due to having to spend a considerable amount of their valuable time running the business (administrative tasks). Business Financial Management (BFM) represent a set of tools that assists SMEs in managing their financial health by providing assistance with activities in the area of cash flow management, continuous cost analysis, budgeting, revenue review or VAT handling. BFM tools combined create a smart virtual advisor that leverages AI and data to generate personalized actionable insights at the right, most valuable time. Insights that consider not only past & pending transactions at a specific point in time but also expected and most likely future event(s).
INF_JOB_14	Customer & Bank #2: Demonstrate mutually beneficial value from data and transparency of usage. Lack of transparency of data usage and data privacy is a growing personal and regulatory issue, however mature data control services including consent management are not available.
INF_JOB_15	Customer #1: Sharing financial information with people you trust makes managing finances easier and more transparent. It also develops relationships which a beneficial from personal and business perspective. Sharing financial information is not easy today and currently involves paper copies, forwarding full pdf statements or sharing login credentials.
INF_JOB_17	Equip the Banks CRO with in-depth insights: The ability to have holistic SME business insight and resulting capability to assess a SMEs financial situation is essential to provide "Just in Time" business services/products to an SME,

	i.e. to provide working capital at the time needed.
INF_JOB_18	Evaluation of portfolio health through AI engine: a portfolio needs to be evaluated on a regular basis to check that it continuously meets a set of criteria defined for this specific investor. The criteria represent the client's preferences and overall performance of the portfolio.
INF_JOB_19	Financial recommendations: To receive personalized offers clients have to look for the info by themselves in the several channels of the bank or contact a personal agent.
INF_JOB_21	Investors in financial markets are often at a loss when facing a huge range of products. For financial institutions also, how to recommend products to the right investors, especially those without previous investment records is problematic.
INF_JOB_22	Maximum efficiency in the daily management of clients' accounts. Nowadays, customers have to check their accounts regularly and make a manual expense forecast to keep up with the charges in their accounts.
INF_JOB_23	Provide advise that factors in data from all relevant data sources: An incomplete view can easily result in the wrong decisions being taken. Based on this it is essential to enhance the banks owned data with other data sources. In this regard, focus should be given in particular to the SME ERP/Accounting data integration but also other sources such as existing public data portals (e.g. Country specific government data portal).
INF_JOB_24	Selection of funds: a firm needs to help clients select funds to invest in from an extensive list. This needs to be done in a systematic manner based on some tangible criteria which represent risk, return and each client's personal preferences.
INF_JOB_36	The objective of the client is to obtain maximum profit in a bearable risk level, based on investing profile, style, interests, and risk aversion.
INF_JOB_38	The saving processes. If customers want to save money in a long-term way, they have to make their own saving plan and they have to carry out the plan.
INF_JOB_39	This pilot will leverage large customer datasets and large volumes of customer-related alternative data sources in order to make the process of providing investment recommendations to retail customer more targeted, automated, effective, as well as context-aware (i.e. tailored to state of the market).

Table 3 - Jobs to be done: Personalized Usage-Based Insurance Pilots

JOB ID #	Jobs to be done
INF_JOB_04	A new client wants to get a health insurance for themselves and potential family members. Interested in good premiums that reflect their personal needs.
INF_JOB_07	An existing client of an insurance company claims a change in personal lifestyle that reduces risks. The company needs to collect data in order to assess this behavioural change.

INF_JOB_08	An insurance company is about to sell an insurance product to a new client. The company does not have any prior information about the client in order to (a) estimate the associated risk and (b) select the product best fitting the client so it has to gather data from different sources. The Insurance Company need to understand better the privacy implications of this data collection process.
INF_JOB_30	The insurance company collects information from various sources in order to authenticate the data provided by the insured.
INF_JOB_32	The insurance company wants to determine driver's profile in order to re-evaluate company's pricing policy for the insured.
INF_JOB_33	The insurance company wants to provide the insured with an insurance policy. In order to do that the insurance company takes into consideration specific parameters provided by the insured and other sources in order to evaluate the risk as accurate as possible.
INF_JOB_34	The insured provides all the requested data to receive a personalised insurance policy that fits his needs and his driving profile, with a fair pricing.

Table 4 - Jobs to be done: Predictive Financial Crime and Fraud Detection Pilots

JOB ID #	Jobs to be done
INF_JOB_01	A bank or an exchange company is going to accept deposits of public blockchain assets such as crypto currency (e.g. bitcoin and ether) and tokenized assets (e.g. ERC20 tokens). Assets are transferred from a client's blockchain address to the company's blockchain address. Starting from the client's address, previous transactions need to be traced so as to find out if the deposited assets originated directly or indirectly from blacklisted addresses that were used in fraudulent activities. If fraudulent activity is traced, the deposit should be rejected and/or informed to law enforcement officials. Since all over the world, fraud related addresses may be blocked by others, if the company accepts or exchanges such fraud related assets, it means it may incur a heavy loss since these fraud related assets cannot be sold to customers or anyone in the world.
INF_JOB_02	A client exchanging their blockchain assets for other assets, want "clean" assets (i.e. non fraud related assets). The client also does not want the company to accept and own fraud related assets, because this may make the company financially insecure which indirectly puts clients' balances at risk.
INF_JOB_25	The Bank employs large teams of people to review suspicious transactions that are referred to them by the system that detects potential suspicious transactions. The bank wants to reduce the number of false positives that go to those teams.
INF_JOB_26	The Bank's customers make millions of transactions a day. The bank needs to be able to identify transactions that are moving the proceeds of crime (money laundering).
INF_JOB_29	The EU Directive 2015/849, (4AMLD) requires from the competent supervisory authorities to consider risks, while carrying out supervisory

	<p>activities (Risk Based Supervision (RBS)). According to RBS the frequency and intensity of supervisory engagement has to be proportionate to the risk of money laundering and terrorist financing (ML/TF risk) to which a specific financial institution (FI) under the scope is exposed. In order to define ML/FT risk profile of particular FI, the competent supervisory authority must assess FI inherent risk, and its control environment to prevent such risks. For determining and evaluating the inherent risk, different data has to be taken into consideration (e.g. the size of the institution, the diversification of the business network, the existence of subsidiaries, the volume of business, the structure of clients, the set of products and services, etc.). In this regard, a wide range of different sources of information need to be combined, used and continually updated as RBS is not a one-off exercise, but an ongoing and cyclical process.</p>
INF_JOB_37	<p>The recent come into force of PSD/2 regulation, opens Financial Services' market to fintech operators, providing them access to online services by introducing a bunch of standardised sets of REST APIs. This disruptive change paves the way for the development of a totally new panorama of online, integrated offering of financial services, but at the same time, an unprecedented set of new threats and cyber-attacks (or cyber-enabled attacks) is expected to show up. Just to make an extreme but significant example, a single logical/conceptual vulnerability in the standardised APIs architecture, could lead to a potential major and widespread service impairment, possibly affecting hundreds of banks and millions of customers at the same time at EU level, at the speed of a software script execution. Therefore, in order to mitigate the risk of such kind of scenarios to become real, some technical risk-mitigating security measures must be adopted, including monitoring really high volumes of financial transactions: 1) in near real-time; 2) in a semi-automated manner; and 3) looking for non-intuitive, non-evident, ever seen before, fraud schemas.</p>

Table 5 - Jobs to be done: Smart, Reliable and Accurate Risk Assessment

JOB ID #	Jobs to be done
INF_JOB_16	Employees of a bank have to calculate risks of their portfolio and of pre-trades. The bank uses two measures (VaR, ES) to calculate the risks of its positions and the effectiveness of its models. These calculations are used by traders, risk managers and sales managers to perform their respective tasks correctly. In addition, the calculations that make up the risk assessment and monitoring must comply with the regulations of the respective financial supervisory authorities.
INF_JOB_27	The banks must pay for each physical copy of the documents that the notaries generate in each notarial service and must control the invoices generated by the notaries.
INF_JOB_28	The banks require notarial services for the contracting of several financial products with their customers (as mortgages, ...).
INF_JOB_35	The notaries generate many physical documents, but some of the physical

	copies are useless for the bank and for the end customer.
INF_JOB_040	Data Governance Officer wants to detect key concepts related to the internal regulatory processes and documents
INF_JOB_041	Enterprise Architects and Data Governance Officers need to understand the link between key concepts and a common standard taxonomy (eg. Data, processes, business application etc) to create a unified reference glossary

3.2 Gains

This section provides the “Gains” identified by each of the pilots in INFINITECH. This section is divided by Pilot Category, so that the “Gains” are grouped per category.

Table 6 - Gains: Configurable and Personalized Insurance Products

GAIN ID #	Gains
INF_GAIN_02	An automation of the subscription process helps the insurance company reduce costs. In addition, being able to verify that the data entered is correct with a double verification avoids possible errors in the cost of the insurance premium
INF_GAIN_11	Customer retention. Insurance companies that are active in smaller markets often do not have the resources to invest in risk analytics and modelling. Hence, brokers as intermediaries can provide independent consulting services and retain successful client relationship.
INF_GAIN_17	Improved offering of insurance cover. When above described client is able to provide better data on risk distribution and portfolio structure (e.g. geolocation), the broker is able to conduct better analysis (modelling) and consequently provide individual insurance cover solutions.
INF_GAIN_18	Improved risk assessment and benefits from risk diversification
INF_GAIN_19	Improved Risk information. The services developed in Pilot No#14 will help to identify areas where high crop productivity meets high catastrophe probability
INF_GAIN_23	Lean damage assessment and claims handling. Time required for loss adjusting will be reduced and claims handling procedures significantly streamlined to increase the speed of indemnity pay-outs to insurance clients.
INF_GAIN_25	More comprehensive Datasets. By using EO data, Weather Intelligence, agro-geological databases and crop monitoring, the service will create additional datasets with high predictive value for actuary and underwriter use.
INF_GAIN_46	The monitoring and identification of real-time risk changes allows the company to know if the insurance cost really corresponds to the real risk of the SME or if it should increase or decrease it to adapt it to its current situation

INF_GAIN_47	The new information on SME customers allows cross-selling to better adapt to customer needs and increase the conversion rate, compared to previous sales campaigns
INF_GAIN_53	Time and cost savings

Table 7 - Gains: Personalized Retail and Investment Banking Services

GAIN ID #	Gains
INF_GAIN_04	Automation of frequent operations to facilitate the continuous management of client's accounts.
INF_GAIN_05	Bank becoming a Trusted Business Advisor: Providing the SMEs with value-adding insights with the top priority being to foster SME development/ growth and at the same time releasing SMEs as much as feasible from costly admin tasks will contribute towards the bank to be seen as a trusted business advisor.
INF_GAIN_06	Business –share information with customers, partners, government and banks and vice-versa. Develop business relationships by fostering trust both ways and exposes business data and networks that facilitate analytics and innovative forms of customer appraisal - customer satisfaction, credit worthiness, loyalty, etc.
INF_GAIN_09	Community - transparency for members & fundraisers to subscriptions and charity bank accounts: 1) Increase Trust & Funding; 2) Recognise Support & Sponsors
INF_GAIN_10	Comparative view of customers who have the same profile with same incomes and situation.
INF_GAIN_14	Family - Permissioned access to view account balances and transactions enables: 1) Student Loan and Spending Oversight; 2) Dependent Parent account Oversight; 3) Monitor Household spending
INF_GAIN_15	Flexibility and customization: the tool has the ability to tailor a proposal to various client preferences, which could be risk-driven (lower/higher risk awareness) but also thematic driven (like ESG criteria, or some other thematic preconditions, as E-mobility). This set of preferences can be widely customized and augmented given the flexibility of the (AI based) algorithm.
INF_GAIN_16	Friends - authorise sharing identification and financial information with friends in a way you trust: 1) Share expense details with friends; 2) Make new friends be increasing trust; 3) Helps share assets with 'trusted' friends
INF_GAIN_20	Increased SME business success: Today there is a high rate of SME business defaulting with one of the major reasons being SMEs do not have a correct cash flow view. The Smart Virtual Advisor facilitates the right ecosystem (e.g. tools, financial/legal/insurance products) to be in place in order to succeed in today's global digital world where real time notifications/alerts are a must. In particular, the BFM tools support cash flow awareness & optimization, cost control through dynamic budgets and potential fast and

	seamless access to the right financial product (e.g., working capital).
INF_GAIN_21	Interactivity in a simple and intuitive way.
INF_GAIN_24	Life – conveniently share financial information easily with businesses, government, Landlords, utility companies, banks, etc: 1) Demonstrate loyalty and proof of Purchase; 2) Access up new services (eGovernment); 3) Profit from personal data – improved KYC, Credit Assessment, etc; 4) Verification of Identity
INF_GAIN_26	New Revenue Streams: Streamlined, higher degree of automation/digitalization and connection to the SME allows the bank to assess customer situation in real time and consequently to reduce cost and at the same time generate additional revenue streams and higher conversion rates.
INF_GAIN_27	Notifications or alerts of cashflow movements.
INF_GAIN_29	Regulatory advantages: the tool is able to model regulatory constraints and take them into account during the AI portfolio construction. This could also help to identify, if AI as a technology could be used within Wealth Management with relevant positive impact.
INF_GAIN_30	Retail customers will gain access to a service previously offered only to high net worth individuals.
INF_GAIN_35	Scalability: the tool can enable a firm or it's advisors to deal with a large number of accounts at different wealth levels at the same time with minimal increase in workload, so that a kind of "Private Banking offering" can be provided to a larger audience.
INF_GAIN_48	The personal investment advisors will feel more comfortable having information for the recommendations they provide.
INF_GAIN_54	Time efficiency and engagement: automating and systematizing what is traditionally a manual process for an advisor saves time that can be spent on relationship management and engagement

Table 8 - Gains: Personalized Usage-Based Insurance Pilots

GAIN ID #	Gains
INF_GAIN_01	A privacy aware approach of the tool offers a competitive advantage for the insurance company and diminishes the risk of the data collection
INF_GAIN_08	Changes to terms of service are communicated timely and in an understandable way.
INF_GAIN_28	Personal life changes (e.g., children, moving to a new house, job changes from handicraft to office work) can be easily communicated to the insurance company and are timely reflected in updated policies
INF_GAIN_38	The client benefits from individualized insurance offer and state-of-the art eServices that supports being up to date with insurance products they already have.
INF_GAIN_41	The company is provided with a tool to better assess the risk involved in

	this potential health insurance policy. This tool collects real-world data from the potential client, estimates the associated risk and allows the company to adjust the insurance fees of the client. This way the risk of the company is minimised, and clients exhibiting low risk benefit from lower insurance fees
INF_GAIN_43	The insurance company can evaluate the risk in the most accurate way.
INF_GAIN_44	The insurance company with the tool provided can determine any inconsistency with the data provided by the insured.
INF_GAIN_45	The insured receives an insurance policy that satisfy his needs with the lowest tariff.
INF_GAIN_50	The risk assessment process is automated, reducing the assessment costs of the company.
INF_GAIN_51	The risk assessment process is automated, reducing the assessment costs of the company.

Table 9 - Gains: Predictive Financial Crime and Fraud Detection Pilots

GAIN ID #	Gains
INF_GAIN_03	Analysis of big data coming from wide range of different sources (e.g. payment transactions, data acquired from the FI; business register etc.) will be improved.
INF_GAIN_07	By adopting AI-based transaction monitoring, it is expected that previously unknown fraud schemas or anomalous and potentially criminal behaviours would be detected (e.g. violations to the anti-money laundering regulations, data abuse, etc.), thus bringing a significant positive impact to various areas: 1) compliance to PSD/2, GDPR and AML regulations could be maintained by – for example – even when analysing critical (in terms of privacy) data flows by using fully-automated AI-driven processes (no-human in between) and adopting a black-box approach; 2) significant money saving could be obtained by detecting previously unknown fraud schemas or novel criminal behaviours at the very same moment they are happening (near-real-time detection); and 3) the effectiveness of traditional software-assisted, semi-automated, rule-based, monitoring and analysis processes of financial data-flows, could be dramatically improved by adopting high-performing automated transaction monitoring processes, that could help reducing the number of false-positives, by analysing transactions and context features, detecting by similarity (e.g. in impact or behaviour) to previous cases, cataloguing threats and providing first-responders to security incidents with the availability of possible mitigating actions, that could be immediately adopted to counter current attacks.
INF_GAIN_12	Data gathering will be automated, transparent and will include data quality control.
INF_GAIN_13	Due to more effort-efficient risk assessment process, additional resources can be focused on the supervision of high risk FI.

INF_GAIN_31	Risk assessment as an ongoing and cyclical process will be improved with automated feeds from big data analysis.
INF_GAIN_32	Risk assessment process will be more cost efficient due to less time needed for data gathering tasks, assessment of the FI and sector risk and semi-automated features.
INF_GAIN_39	The clients will be rest assured that all assets withdrawn will be clean (non-fraud) related assets which can be safely transferred to other companies.
INF_GAIN_40	The company is provided with a blockchain transaction graph analysis tool to trace transactions associated with fraudulent client deposit addresses. The tool operates on big blockchain data from multiple chains like Ethereum and Bitcoin. The tool operates in parallel on partitioned transaction graph and hence it is fast and scalable and will also handle future massive transaction data when transaction throughput performance of blockchains improve from tens to hundreds of transactions per second
INF_GAIN_42	The identification of previously undetected criminal behaviour will be good for both society and the bank.
INF_GAIN_49	The reductions in the number of false positive reports of suspicious transactions will reduce the amount of work done by the teams that have to manage investigation of suspicious alerts.

Table 10 - Gains: Smart, Reliable and Accurate Risk Assessment

GAIN ID #	Gains
INF_GAIN_22	Invoices digital processing with Artificial Intelligence provide a solution to extract relevant indicators from the invoices that will be used to determine the sustainability score and to rate notaries based on a sustainability index.
INF_GAIN_33	Sales managers can therefore prove the risks to their leads in real time.
INF_GAIN_34	Sales managers can therefore prove the risks to their leads in real time.
INF_GAIN_36	The bank is provided with a system with which it can calculate VaR and ES in real time. The data is up-to-date and does not have to be downloaded and analysed afterwards as usual. Risk managers and traders both have real-time access to analysis of pre-trades and can evaluate them both individually and at the overall portfolio level.
INF_GAIN_37	The bank is provided with a tool to reduce the cost related with useless physical copies.
INF_GAIN_52	This system will be aimed to be adopted by the whole banking industry as a means of ensure more sustainable businesses.
INF_GAIN_055	Banks are provided with a tool able to standardise the documentation analysed
INF_GAIN_056	Increased Automation and Intelligence based on data processing leveraging data governance processes
INF_GAIN_057	Improve the analysis and comprehension capabilities of internal documents and contents

3.3 Pains

This section provides the “Pains” identified by each of the pilots in INFINITECH. This section is divided by Pilot Category, so that the “Pains” are grouped per category.

Table 11 - Pains: Configurable and Personalized Insurance Products

PAIN ID #	Pains
INF_PAIN_01	Adaptation of existing insurance products, change of terms and conditions
INF_PAIN_02	Adaptation to new information input and insurance products
INF_PAIN_03	Adaptation to new technology and integration into day to day business process (training required)
INF_PAIN_04	Adaptation to new technology and integration into day to day business process (training required)
INF_PAIN_05	Climate Risk, increases risk exposure for Ins. Companies
INF_PAIN_13	Development of diverse policies is time-consuming.
INF_PAIN_20	Possible loss of jobs
INF_PAIN_22	Significant change in existing actuary, underwriting and Loss adjusting processes.
INF_PAIN_27	The client has the feeling that it is not properly attended by the insurer since there is no update of the information of its activity
INF_PAIN_30	The insurer has a feeling of lack of control over the risks of its client portfolio since it knows that the reality of its clients' activities changes but they do not obtain updated information
INF_PAIN_32	The subscription of the risks is inefficient and not very precise and therefore the insurer feels that it does not adjust the prices and the type of products to the reality of the market
INF_PAIN_33	Through automated analysis the broker is not able to add value as an intermediary anymore

Table 12 - Pains: Personalized Retail and Investment Banking Services

PAIN ID #	Pains
INF_PAIN_06	Communication of investment recommendations to retail customers is subject to regulatory limitations, therefore the operationalization of this service should be implemented diligently.
INF_PAIN_10	Daily management: customers do not know what happens in their accounts in real-time if they do not check it constantly.
INF_PAIN_14	Financial Product Availability: Due to the Banks limited insight into the SME business it takes considerable time to obtain the required financial product (e.g. lending) or financial advice and often results into the SME losing opportunities or even into more severe financial distress.
INF_PAIN_15	Goals and savings: clients cannot manage their finances with the purpose of saving and taking into account variable payments.

INF_PAIN_16	I recognise my data is worth something, but I am not getting any value or return from it – INFINITECH could help you realise that value with analytics and anonymization of data and also maximise ‘untapped’ value of your relationships with other members of sharing network
INF_PAIN_17	It is difficult to share financial data easily - A simple data sharing application would make life easier by providing a trusted mechanism to share information digitally in a few clicks
INF_PAIN_18	Long-term control of their finances: users do not have long-term view of their finances and cannot control their future expenses.
INF_PAIN_19	Missing (real-time) Financial/Performance KPIs: Many SMEs cannot obtain a real time picture of their business resulting into wrong and delayed business decisions
INF_PAIN_23	Technical and financial literacy: the burden of decision-making is shifted entirely onto the end users of the tool, this may be the advisor alone, or the advisor-client duo within an advisory journey. Success of the process will depend on guiding the end user to properly use the tool and deploying the tool in a sufficiently user-friendly environment and manner.
INF_PAIN_34	Transaction/Accounting Reconciliation: SMEs spend considerable time and money (accountant expense) for reconciling banking data with their ERP/Accounting system.
INF_PAIN_37	Who can I trust with my data - I have trusted my bank to manage my money confidentially and securely for over 100 years. An easy to use and comprehensive data control and consent services would provide transparency of data usage and ensure data privacy

Table 13 - Pains: Personalized Usage-Based Insurance Pilots

PAIN ID #	Pains
INF_PAIN_24	The assessment burden is transferred from the company to the client, who has to comply with the assessment protocol (collection of RWD for some period of time, involving wearing an activity tracker and answering questionnaires). The client needs incentives to accept this (expectation of lower insurance fees) as he/she can be concerned about the collection of personal data
INF_PAIN_28	The insured must accept to install at his vehicle a device which will provide the insurance company with driving information.
INF_PAIN_29	The insured should provide the company with more than the obligatory by law data and this is more time-consuming.

Table 14 - Pains: Predictive Financial Crime and Fraud Detection Pilots

PAIN ID #	Pains
INF_PAIN_07	Complex data search and data analysis is time consuming, costly and effort prone
INF_PAIN_08	Conventional supervisory planning is time consuming and effort prone

INF_PAIN_09	Currently fraud detection attempts leveraging on financial transactions data monitoring, requires relevant human efforts and generates a number of false positives which causes supplemental efforts by fraud analysts; this issue should be addressed by the INFINITECH project
INF_PAIN_11	Data collection is time consuming and prone to human error.
INF_PAIN_12	Data quality makes investigation of financial crime onerous.
INF_PAIN_25	The bank expends a lot of effort having to check suspicious transaction alerts.
INF_PAIN_35	Transactions on public blockchains are carried through pseudo-anonymous addresses. When a client transacts on public blockchains, it is with the understanding that the transaction is visible and can be traced. The client may feel their transaction privacy is exposed if during graph traversal blockchain addresses are linked to other clients addresses or entities whose identities are known, hence, revealing with whom transaction is done. The customer will be rest assured that during graph traversals no identities of other entities will be input by the blockchain graph analysis tool, hence, fully respecting client transaction privacy.
INF_PAIN_36	Transparency over decisions taken by AI algorithms should be an objective to be pursued during INFINITECH project lifetime. This could dramatically mitigate disputes over potential fraud cases.

Table 15 - Pains: Smart, Reliable and Accurate Risk Assessment

PAIN ID #	Pains
INF_PAIN_21	Regulators are acknowledging the benefits of the new, faster system and increasing the demands and requirements on the bank and its reporting, leading to new problems and pressure for the bank.
INF_PAIN_26	The banks have an extra high cost for physical copies of the documents.
INF_PAIN_31	The notaries generate some physical and useless copies that originates extra burden in terms of paper wasted and financial costs.
INF_PAIN_038	Exploitation of data asset
INF_PAIN_039	Harmonization of semantic representational models in the context of financial services
INF_PAIN_040	Put together multiple banking, technical and academic stakeholder to achieve common objectives

4 User Stories

The User Stories are the 2nd step of the process used in INFINITECH, just after the User Characterisation, containing the “jobs to be done”, wanted gains and experienced pains (detailed in the previous chapter).

This chapter focus on the definition of the actual User Stories, and were defined in the form:

The following sections provide the list of User Stories identified per each pilot in INFINITECH, grouped by category.

4.1 User Stories: Configurable and Personalized Insurance Products

Table 16 -User Stories: Configurable and Personalized Insurance Products

User Story ID#	As a « <i>type of user</i>», ...	... I want « <i>some goal</i>» ...	... so that « <i>some reason</i> ».
INF_US_001	Actuary	to create data sets for statistical analysis of a risk "X"	the price to cover the risk "X" highly correlates to the financial risk an insurance/reinsurance company is exposed to.
INF_US_002	Actuary	to create data sets for developing a new product in a market "Y"	the reinsurance/insurance company is able to increase its product accuracy with respect to market "Y" specifics.
INF_US_028	Broker	to create data sets for analysis of entire agricultural insurance portfolios of clients	can use the information to advise on necessary actions.
INF_US_029	Broker	to create data sets for analysis of entire agricultural insurance portfolios of clients	reinsurance cover can be individualised, and terms argued more effectively.
INF_US_030	Broker/ Agent	Have profile info about the real insurance needs of their clients (SMEs)	Identified needs with tailored products
INF_US_035	Client (SME)	Have best product with the best possible price	Identify insurance needs
INF_US_036	Client (SME)	That the coverages and amount	Monitoring and identifying

		insured are permanently adapt to their activity changes	risk changes
INF_US_046	Insurance Company	Underwriting process is inaccurate and inefficient	Predictive Underwriting
INF_US_047	Insurance Company	SMEs risks change constantly	Monitoring and identifying risk changes
INF_US_048	Insurance Company	SMEs are constantly evolving, and their insurance coverages get outdated	Identified needs with tailored products
INF_US_071	Loss Adjuster	the support of EO data analysis that feeds the on-farm loss adjusting	the entire loss adjusting process becomes more time- and cost-effective.
INF_US_072	Loss Adjuster	to be able to conduct loss adjusting for specific perils (flood, fire, ...) remotely (EO data analysis)	an objective and highly efficient process can be established.
INF_US_076	Sales Agent	identify priority areas based on agricultural risk mapping	resource planning for sales activities can be improved.
INF_US_077	Sales Agent	identify priority areas based on agricultural risk mapping	client (farmer) can be informed about the risks (visualized) in a given area.
INF_US_100	Underwriter	to conduct a precise risk assessment based on real data e.g. EO data, Climate and weather intelligence (not assumptions) before writing a risk	the agricultural portfolio is well balanced and compensates for potential claim payments.
INF_US_101	Underwriter	an overview of the	sales activities can be

		agricultural risk landscape in market "Y"	targeted more specifically across the market "Y" with the objective of portfolio diversification.
INF_US_102	Underwriter	an overview of agricultural production and weather/climate patterns in market "Y"	areas can be identified where crop productivity and catastrophe probability is high.
INF_US_103	Underwriter	to increase the speed (effectiveness) of claim handling procedures	indemnity pay-outs can be transferred to the client more quickly.

4.2 User Stories: Personalized Retail and Investment Banking Services

Table 17 - User Stories: Personalized Retail and Investment Banking Services

User Story ID#	As a «type of user», ...	... I want «some goal» ...	... so that «some reason».
INF_US_007	Bank	Propose the automation of frequent or repeated transactions patterns	Facilitate the continuous or semi-automated management of future invoices and subscriptions.
INF_US_008	Bank	Establish a rating of financial units	Compare customer data regarding their estimated costs and business segmentation to be able to offer better information about their finances to end customers.
INF_US_009	Bank	Obtain personalized recommendations taking into account the client's expense profile	Access to improvements in the client's financial situation through correct offers at the right time of offering for the client's case.
INF_US_010	Bank	To provide the SME with actionable insights and recommendation on	SME customer loyalty is increased and the bank to be considered as a trusted business advisor

		the right products at the right time.	that has the SME success as its first priority.
INF_US_011	Bank	To recommend factoring services where it adds value to the SME business.	To improve SME cash flow.
INF_US_012	Bank	To have comprehensive SME data available in order to provide lending solution tailored, personalized to the SME business.	Working capital (lending) can be provided in the shortest possible time and revenue income increased due to customers business growth.
INF_US_013	Bank	Upgrade customer experience by automating the process of providing investment recommendations for the retail customers of the bank. Ensure that these recommendations are more tailored, effective and overall more acceptable from the customer's side.	Develop a better and more trustful relationship with customers and also increase the trading volumes that are associated with high-value retail customers.
INF_US_017	Bank - Individual Bank or Orchestrated Consortium of Banks	We want to offer a suite of new digital services by fostering sharing and 'trust' relationships with and between customers by: 1) Developing strong foundational reusable capabilities: a) Secure Data Sharing Mechanism; b) Data Trust – Brand and Culture; c) Simple Granular Permissions; 2)	Because it: 1) Increases customer satisfaction and retention by offering improved services; 2) Distinguishes brand; 3) New revenue models and traditional sales uplift; 4) Leverages and enhances capabilities. (e.g. Open Banking, Network Analytics); 5) Satisfies customer demand for transparency and control.

		Initially providing a simple secure permissioned based 'read only' data sharing and customer identification services across all accounts within any API enabled bank, to support customer use stories above, but also Banking use cases like KYC and Credit Assessment.	
INF_US_018	Bank - Individual Bank or Orchestrated Consortium of Banks	We want with the permission of users to use the 'exhaust' data from identification and account information services to enable added value services and analytics.	Because it: 1) Increases customer satisfaction and retention by offering improved services; 2) New revenue models and traditional sales uplift; 3) Leverages and enhances capabilities (e.g. Open Banking, Network Analytics).
INF_US_019	Bank - Personal (Retail Consumer Segment) Customer	I want a service which allows me to easily and securely share personal financial data with others. Personal information includes Customer identifiers and associated data, in addition to account, transaction and documentation data. "I want to control ..what I share ...with whom...and when."	Because sharing financial information with people you trust makes your financial life easier and more transparent.
INF_US_020	Bank - Personal (Retail Consumer Segment) Customer	I want added value services like analytics and data enhancement (e.g. categorisation) from a trusted	Because working with a trusted partner to analyse your financial information makes your financial life easier and increases money in

		organisation to help manage my finances and make life easier.	pocket.
INF_US_021	Bank - Small to Medium Sized Business Customer	I want a service that allows businesses to share identification and account & transaction information safely with customers, partners (including government) and our banks....and vice versa.	Because sharing financial data will help develop business relationships and KYC, because it fosters trust both ways and exposes business networks and facilitates analytics. Also, as a Business customer I can reduce costs by participating in a sharing economy facilitated by a “trust” platform from the Bank.
INF_US_022	Bank - Small to Medium Sized Business Customer	I want added value services like analytics and data enhancement (e.g., categorisation) from a trusted organisation to help grow my business.	Because working with a trusted partner to analyse your financial information makes can increase customer leads, satisfaction and profits.
INF_US_023	Bank CRO	To obtain a 360 in-depth understanding of the customers/SME situation by exposing the insights the SME can see.	The CRO can provide value adding, i.e., meaningful and personalized advice to the SME business.
INF_US_037	Client retail	Receive notifications and transaction alerts	Control future transactions and especially possible anomalies associated with double payments, high value charges, geography of transactions, credibility of the merchant, etc.
INF_US_038	Company	Engage clients on a large scale through actively managing their wealth through an AI based tool (even for “smaller”	Reach clients with portfolios of various sizes in bulk and enable them to construct/rebalance/optimize portfolios (with

		portfolios)	different parameters) on a regular or on-demand basis.
INF_US_039	Financial Advisor	Propose a tailored, on AI basis constructed portfolios to a client in a fully automated fashion.	Client preferences are sure to be met in a quantifiable manner. More advisors time can be used for engagement with the end-client and customer relationship can be improved.
INF_US_040	Financial Advisor	Monitor a portfolio's health on a regular basis using the client's pre-set preferences (like performance, risk parameters or other preconditions)	Generating a reason to engage a client on portfolio adjustment and build trust in the fact that their investments are constantly monitored in the right - customer oriented - way.
INF_US_070	Investment advisors	Provide tailored financial advice by leveraging on the risk and behavioural profiles of the entire bank clientele (not only of the existing investors as was the case until now).	Investment advisors' productivity increases thanks to better recommendations. Relationship with high-value customers strengthens.
INF_US_074	Retail Client	Receive an AI based constructed portfolio proposal based on individual choices, risk-bearing capacity and preferences.	Ability to manage one's own portfolio and gain control over managing wealth with the help of Artificial Intelligence.
INF_US_075	Retail Customers	Experience personalization in their investments by gaining access to a service previously offered only to the highest-value customers by their assigned investment advisors.	Consider the bank as their main financial services provider and gradually turn exclusively to the bank for the entire spectrum of financial advice, products and services.
INF_US_079	SME Owner	To Auto-Classify transactions in line	Reconciliation becomes more efficient and

		with the categorization used by the SMEs accounting system/ SMEs requirements with a very high accuracy.	monitoring &controlling of expenses can be done more effectively. Human interference with transaction categorization is minimized.
INF_US_080	SME Owner	To have the ability to manually override/define transaction category.	The correct transaction category is defined for each transaction.
INF_US_081	SME Owner	To have clarity on the currently available working balance, i.e., the balance after taking all current and upcoming expenses as well as income into consideration.	Correct and real time understanding of the business situation.
INF_US_082	SME Owner	Working Balance in the near-term future (forecast for up to 6 month).	Any liquidity, KPI challenges can be proactively addressed and focus can be given to safeguard future value creation through informed decisions e.g., on potential investments/bonus payments/etc.
INF_US_083	SME Owner	To monitor working capital and alert the SME when the working capital balance moved below a threshold which is defined in line with business type, behaviour and industry best practices and based on Days cash on hand benchmark.	To take corrective measures and arrange/obtain respective lending required to close any potential cash gap.
INF_US_084	SME Owner	To predict the VAT amount payable at the quarter-end when due.	The SMEs VAT obligation can be met/paid without causing financial distress to the business

			operation.
INF_US_085	SME Owner	To know the most likely time a specific invoice will be paid.	Allowing for streamlined collections, i.e., follow up at the "right" time as well customer assessment regarding invoice payment (e.g., versus other SME customers and/or SME peer comparison).
INF_US_086	SME Owner	To achieve cash flow optimization by paying invoice(s) obligations at the "right" time.	Liquidity shortcomings can be avoided to the max. extend through optimized payment schedule as well as providing actionable insight for obtaining working capital so as to avoid any negative impact on credit score.
INF_US_087	SME Owner	To be always up to date with obligation by being alerted in time for upcoming payments and potential cancellation options as well as to identify any multiple subscriptions /recurring payments for the same purpose or alternative options.	Increase transparency, stay on top of payments safeguarding that multiple subscriptions are avoided and/or subscription(s) can be handled most appropriately to save money. Bills are paid on time to not only avoid late fees but also potential negative impact on credit score. Incorporates obtained info into the decision-making process before the actual amounts are actually spend.
INF_US_088	SME Owner	To get informed in case transaction amount(s) and/or transaction type(s) deviates from normal behaviour.	To spend time/effort efficiently on items that need further investigation.
INF_US_089	SME Owner	To present basic insights regarding cost structure and	Any potential cost optimization actions can be identified and/or

		compare this to other SMEs in a similar position.	respective advice be obtained if required.
INF_US_090	SME Owner	The option to retrieve SME customized daily, weekly, monthly high-level summaries on where the business stands (financial health matrix, performance matrix) compared to best practice knowledge/peer performance and the possibility to drill down in order to see what is behind the various KPIs.	To have a clear understanding of the business and ability to focus on business development and growth.
INF_US_091	SME Owner	To see at any point in time the business status regarding financial health and performance in relation to best practice/peers.	To have a clear understanding of the business and ability to focus on business development and growth.
INF_US_092	SME Owner	Realistic budget benchmark per category as default value with the ability to override. I want budget recommendations to be based on best practice and peer information.	Most realistic budget figures are being used.
INF_US_093	SME Owner	Budget(s) to be dynamically adjusted so as to reflect SME business growth/development together with other macro-economic parameter.	To avoid drawing wrong conclusions from static budget numbers that are no longer representative.
INF_US_094	SME Owner	To have a cost control mechanism	To support healthy business growth by

		in place that safeguards spending alignment with the budget defined for different periods, categories, merchants.	understanding where the money goes and where spending must be cut back.
INF_US_095	SME Owner	To have a single system that serves as a ONE-Stop-Shop e.g., not having to logon to the accounting system in order to retrieve financial/performance data for KPI calculation/assessment.	User convenience and experience is maximized by running the business from one place and it allows for a complete cash flow picture to be shown.
INF_US_096	SME Owner	To execute payroll as bulk payments whilst still maintaining full control over individual employee salary payments.	Admin time and human error is reduced.

4.3 User Stories: Personalized Usage Based Insurance Products

Table 18 - User Stories: Personalized Usage Based Insurance Products

User Story ID#	As a «type of user», ...	... I want «some goal» ...	... so that «some reason».
INF_US_031	Client	Has the expectation to achieve a “better deal” with the Company about his life insurance policy.	Clients that have more healthy habits get reduced prices.
INF_US_032	Client	Wants the insurance products to reflect his/her personal situation	He/she don't have to pay for something that does not apply to him/her.
INF_US_049	Insurance Company	To receive data with the exact whereabouts of the insured vehicles	Pricing is more accurate combined with traffic conditions and historical data of each area
INF_US_050	Insurance	To receive data with	Preventing fraud by

	Company	the exact whereabouts of the insured vehicles	using different home address for lower tariffs
INF_US_051	Insurance Company	To verify the VIN number	Detecting if there is inconsistency with vehicle's license
INF_US_052	Insurance Company	To verify the VIN number	Extracting data from EU's ministries of transportation of the first circulation of the vehicle
INF_US_053	Insurance Company	To have access to ministries' database of drivers' licenses	Detecting fraud drivers' licenses sent in the insurance company
INF_US_054	Insurance Company	To receive data from vehicle's CPU of the maintenance of the vehicle	Identifying if the owner of the vehicle follows the manufacturer's maintenance program
INF_US_055	Insurance Company	To have access to reports from official technical inspection centres	Verifying the good condition of the vehicle and its ability for circulation
INF_US_056	Insurance Company	To have access to police authorities' database with tickets, penalties and pointing system connected with the vehicle and/or the driver	Identifying the driving behaviour of the owner of the vehicle and/or the driver
INF_US_057	Insurance Company	Receiving GPS data with the speed of the vehicle combined with speed limits in each area	Identifying drivers' behaviour and their tension to break the law
INF_US_058	Insurance Company	Receiving the exact live location of the vehicle	Preventing fraud declaration of vehicle's theft
INF_US_059	Insurance Company	Providing data of who is the actual driver of the vehicle (e.g., fingerprint)	Avoiding fraud by declaring different driver in case of an accident
INF_US_060	Insurance Company	Receiving live data from vehicle's collision sensors of all the involved vehicles	Detecting fraud declaration of accidents, in different location and/or with different

			involved vehicles
INF_US_061	Insurance Company	Assess risks based on the lifestyle of the client.	Pricing of the insurance products more accurately match the actual risk.
INF_US_062	Insurance Company	Assess risks based on the lifestyle of the client.	Lower-risk clients get reduced prices relative to what the competitors can offer.
INF_US_063	Insurance Company	Measure the privacy risk of the client's data	The collected data is protected with adequate measures
INF_US_064	Insured	To provide with my exact mileage in cases when vehicle is rarely used	Being priced less depending on how much the vehicle is used
INF_US_065	Insured	Receiving the exact live location of the vehicle	Having the ability to locate the vehicle after it is stolen
INF_US_066	Insured	Providing data of who is the actual driver of the vehicle (e.g., fingerprint)	Establishing tariffs per driver not per vehicle and achieving lower pricing for drivers with better driving behaviour
INF_US_067	Insured	Providing GPS data of the speed and the exact location of the vehicle	Using all these in case of an accident so as to determine who is responsible for the accident
INF_US_068	Insured	Achieving a low price in the car insurance without compromising my privacy	Drivers with a "good behaviour" can get a better deal with the insurance company
INF_US_069	Insured	Providing an approximate location of the vehicle	Drivers' behaviour can be determined while their privacy is still preserved

4.4 User Stories: Predictive Financial Crime and Fraud Detection

Table 19 - User Stories: Predictive Financial Crime and Fraud Detection

User Story ID#	As a «type of user», I want «some goal» so that «some reason».
----------------	--------------------------	----------------------------	----------------------------

<p>INF_US_003</p>	<p>Analyst in supervision department</p>	<p>Analyst will have direct access to relevant up to date data, which are gathered automatically from internal sources.</p>	<p>Analyst sends the request to internal parties (departments within the supervisory authority) to gather relevant data and information for risk assessment. Data collection is time consuming due to the manual tasks.</p>
<p>INF_US_004</p>	<p>Analyst in supervision department</p>	<p>Third parties will send/upload data to the distribution channel tool that analyst will have access to. Received data (especially from the FI) will be automatically integrated into the risk assessment tool.</p>	<p>Analyst receives relevant data from third parties (FI, FIU, other supervisory authorities) by e-mail. Data is manually extracted from e-mail and added into the risk assessment framework.</p>
<p>INF_US_005</p>	<p>Analyst in supervision department</p>	<p>Based on the automated screening of the relevant data and predefined scenarios, tool will enable analyst to detect high-risk behaviour. In the first step, screening tool will identify potential high-risk behaviour and send an alert to the analyst. In the second step analyst will review alerts with potential high-risk cases and execute manual decision whether reviewed behaviour is high-</p>	<p>Analysts manually executes analysis of the relevant data based on selected scenarios to identify high-risk behaviour of the specific FI of the whole sector.</p>

		risk or not.	
INF_US_006	Analyst in supervision department	Risk assessment tool will implement risk assessment methodology and enable automated calculation of the FI risk, or the risk of the whole sector based on timely and up to date data. Based on different triggers coming from internal and external sources (screening tool, distribution channel) risk assessment tool will be informed to update the risk assessment. When confirmed by the analyst, reassessment will be executed automatically. Identified high-risk behaviour (as part of internal sources) will trigger a notification for the reassessment.	On the basis of relevant data gathered from internal and external sources analysts assesses the risk of the FI and the sector manually. Reassessment of the FI or sector risk assessment is also done manually. Triggers for the reassessment comes from internal and external sources and has to be included into risk assessment manually.
INF_US_024	Bank/Exchange company	Check blockchain asset deposits to see if they can be traced to published or company internal fraud related addresses.	Do not allow fund withdrawals whose source originate from fraudulent addresses.
INF_US_025	Bank/Exchange company	Support of multiple major chains such as Ethereum and	Can relate customer's activity on multiple public chains and use a single analysis system

		Bitcoin.	rather than multiple systems for each chain.
INF_US_026	Bank/Exchange company	Use a scalable parallel system that is able to handle massive number of transactions.	Can continue to use the system when the blockchain transaction processing performance (currently in the vicinity of ten transactions per second) is improved to hundreds of transactions per second.
INF_US_027	Bank/Exchange company	Trace customer address and related linked transactions to see if they originate from blacklisted addresses published by authorities.	Reject or block deposits as per decision by authorities.
INF_US_033	Client	Be provided with a tracing report.	Be able to provide explanations or provide corrections if wrong tracing is reported.
INF_US_041	Financial Crime investigator	I want to receive more alerts about real cases and fewer alerts about innocent behaviour	So that I can focus on the more high-risk cases
INF_US_042	Fraud Analyst	I want a tool which helps me to reduce the number of false positives which I am forced to analyse in-depth in order to understand if they are real fraud attempts or not	So that we my work can be more efficient and focused on real cases, where my experience and skills will make the difference
INF_US_043	Head of Financial Crime	I want to detect movement of the proceeds of crime into and out of Santander bank	So that criminals can be caught, and the bank avoids fines.

INF_US_044	Head of Financial Crime	I want to reduce the number of suspicious alerts that turn out to be innocent	So that we spend more time investigating real criminal cases (or the highest risk).
INF_US_045	Head of Fraud Department	I want to detect new and subtle type of frauds and make the analysis process more efficient	So that my financial institution can save money by stopping a higher number of frauds attempts previously undetected and by optimizing analysis process and number of employees assigned to boring tasks that could be automatized
INF_US_098	Supervisory authority	Implementation of the Platform for AML Supervision that will include semi-automated features and more direct data access.	Supervisory authorities are obliged to comply with EU AML regulatory requirements and implement Risk Based Supervision that corresponds to extensive use of resources in the supervision department.

4.5 User Stories: Smart, Reliable and Credible Risk Assessment Pilots

Table 20 - User Stories: Smart, Reliable and Credible Risk Assessment Pilots

User Story ID#	As a «type of user», ...	... I want «some goal» ...	... so that «some reason».
INF_US_014	Bank	Get a invoices digital processing system	Digitalization of the bank process to ensure more sustainable businesses
INF_US_015	Bank	Reduces physical copies of documents generated by notaries	Notarial service costs for the bank get reduced
INF_US_016	Bank	Wants to have a flexible, secure and real-time risk analysis system	To enable the Bank's traders, risk managers and sales managers to perform their duties as efficiently as possible and to meet the requirements of

			financial regulators both now and in the future
INF_US_034	Client	Invoice digital processing helps clients to contract services / products faster	Clients get to contract services & products from banks in a sustainable and agile way
INF_US_073	Notaries	Get a sustainability score that encourage them to ensure sustainable business	Notaries get reduced the amount of paper used in their businesses.
INF_US_078	Sales Manager	Wants to assess the risk of a product and portfolio in real time in the form of VaR and ES	To be able to demonstrate on-the-go to a potential customer that the risks of the products are constantly evaluated in order to guarantee the highest possible security and control.
INF_US_097	Software Developer	Wants to create a system that reliably examines the various systems and products for their risk and that can be changed flexibly	So that subsequent regulatory changes on the part of the supervisory authorities can be spontaneously implemented in the risk analysis system and the program does not have to be reprogrammed from the very start.
INF_US_099	Trader	Wants to assess the risk of a trade in real time using VaR and ES individually and at portfolio level	To know whether the risk of a trade is consistent with the pre-defined rules and policies and can be executed without having to resort to end-of-day data.
INF_US_106	Data Governance Officer	Detect the key concepts related to the internal regulatory process; map the tagged concepts against the ABI Lab taxonomies (e.g., data, processes, business applications, etc.)	Standardisation of the classes associated to the documentation analysed

INF_US_107	Enterprise Architect	Understand whether the reference taxonomies and architectural maps (e.g., data, processes, business applications, etc.) are able to comprehensively represent reality within a bank.	Creation of a unified reference glossary and continuous improvement of reference taxonomies and architectural maps
INF_US_108	Researcher	Test the most relevant NLU models, verifying their ability to support the analysis of internal regulatory process within a bank.	Refine NLU models and semantic ontologies, starting from the lessons learned from the experimentation initiative

5 Stakeholder Requirements

After the collection of the User Stories and as a consequence, the elicitation of Stakeholder Requirements was performed. The Requirements were divided by priority (SHALL, SHOULD or MAY), depending on the different needs from the pilots.

The Requirements are present in the following sections. The complete list of Requirements is present in Annex F.

5.1 Stakeholder Requirements: Shall priority

Table 21 - Stakeholders' Requirements with Shall priority

Requirements ID#	Origin	Requirements
INF_REQ_001	INF_US_002	Provide recommendations related to existing products
INF_REQ_002	INF_US_003	Allow analysts to have direct access to gathered relevant up to date data
INF_REQ_003	INF_US_003; INF_US_049; INF_US_053; INF_US_055; INF_US_056; INF_US_057; INF_US_059; INF_US_066	Allow automatic data gathering from internal/external sources
INF_REQ_005	INF_US_004	Allow the data received (especially from the FI) to be automatically integrated into the risk assessment tool
INF_REQ_006	INF_US_005	Allow the analyst to do a review of the alerts related to suspicious (/high-risk) behaviour and execute manual decision whether reviewed behaviour is high-risk or not.
INF_REQ_007	INF_US_006	Enable that the risk assessment tool to be updated by different triggers coming from internal and external sources (screening tool, distribution channel)
INF_REQ_008	INF_US_006	Enable the Risk assessment tool to trigger a notification for the reassessment when Identified high-risk

		behaviour (as part of internal sources)
INF_REQ_009	INF_US_007	Build the software that identifies and automates of frequent or repeated transactions patterns
INF_REQ_010	INF_US_009; INF_US_070	Provide risk profiles of users (e.g., of profiles: behavioural, expense)
INF_REQ_011	INF_US_009; INF_US_010; INF_US_013; INF_US_030; INF_US_031; INF_US_032; INF_US_048; INF_US_070; INF_US_006; INF_US_011; INF_US_012	Use client's profile data for the creation of personalized recommendations
INF_REQ_012	INF_US_014	Provides a mechanism for identifying tables in non-structured documents
INF_REQ_013	INF_US_015	Provides a mechanism for identifying metadata inside the tables
INF_REQ_014	INF_US_016; INF_US_001; INF_US_100; INF_US_047; INF_US_099; INF_US_078	Provides a flexible, secure and real-time risk analysis system;
INF_REQ_016	INF_US_018	Users need to provide permissions to different data uses
INF_REQ_017	INF_US_019	Provides a service that shares personal financial data with others, easily and securely.
INF_REQ_018	INF_US_019	Users need to provide permissions to shares personal financial data with others. And also, transaction and documentation data
INF_REQ_022	INF_US_023	Enable a 360 in-depth understanding of the customers/SME situation
INF_REQ_023	INF_US_023	Define the level of exposing the insights the SME can see
INF_REQ_025	INF_US_025	Support of multiple major chains such as Ethereum and Bitcoin.
INF_REQ_026	INF_US_026	Use a scalable parallel system that is able to handle massive number of transactions

INF_REQ_027	INF_US_027	Trace customer address and related linked transactions to see if they originate from blacklisted addresses published by authorities.
INF_REQ_029	INF_US_033	Provide tracing report
INF_REQ_030	INF_US_034	Provides a mechanism for establishing relationships between the data to create concepts
INF_REQ_032	INF_US_036	Enables the coverages and amount insured are permanently adapt to the activity changes
INF_REQ_033	INF_US_037	Generate notifications and transaction alerts
INF_REQ_035	INF_US_038	Usage of AI for the creation of tailored portfolios
INF_REQ_039	INF_US_043	Creates a crime detection (screening) tool to find suspicious behaviour in the Financial Crime remit
INF_REQ_041	INF_US_044; INF_US_041; INF_US_042;	Reduce the number of suspicious alerts that turn out to be innocent (reduce. via tool, the number of false positives)
INF_REQ_042	INF_US_044	Generate notifications and transaction alerts
INF_REQ_043	INF_US_045	Enable to detect the new and subtle type of frauds and make the analysis process more efficient
INF_REQ_044	INF_US_046	Enable high predictive value to improve underwriting of insurance
INF_REQ_045	INF_US_049	Enable the monitoring of the connected vehicles
INF_REQ_048	INF_US_063	Provide data protection mechanisms
INF_REQ_051	INF_US_073	Allows a sustainability scoring mechanism
INF_REQ_053	INF_US_075	Allow experience personalization in their investments by gaining access to a service previously offered only to the highest-value customers by their assigned investment advisors
INF_REQ_055	INF_US_079	Enable Auto-Classification of transactions in line on SMEs accounting system/ SMEs requirements
INF_REQ_056	INF_US_080	To have the ability to manually

		override/define transaction category
INF_REQ_057	INF_US_082	Enable near-term future in Working Balance (forecast for up to 6 month)
INF_REQ_058	INF_US_083	Enable to use the working capital balance with the defined threshold to monitor working capital and alert the SME
INF_REQ_060	INF_US_084	Enable to predict the VAT amount payable at the quarter-end when due
INF_REQ_062	INF_US_086	Enable the paying invoice(s) obligations at the "right" time to achieve cash flow optimization
INF_REQ_064	INF_US_088	Allow detection when the transaction amount(s) and/or transaction type(s) deviate from normal behaviour
INF_REQ_066	INF_US_090	Enable daily, weekly, monthly high-level SME customized summaries
INF_REQ_073	INF_US_098	Comply with EU AML Supervision regulatory requirements (Risk Based Supervision)
INF_REQ_074	INF_US_101	Provide an overview of the agricultural risk landscape per market
INF_REQ_075	INF_US_102	Provide an overview of agricultural production and weather/climate patterns per market
INF_REQ_078	INF_US_032	Enable user reporting of events
INF_REQ_079	INF_US_062	Display collected info for manual reasoning
INF_REQ_080	INF_US_061	Provide reasoning for health risks
INF_REQ_082	INF_US_005	Provide screening tool to identify potential high-risk behaviour and send an alert to the analyst.
INF_REQ_083	INF_US_084	Determine VAT obligation on transaction level based on information available for specific transaction.
INF_REQ_084	INF_US_084	Derive TOTAL VAT obligation based on outstanding VAT obligation and determined VAT obligation since last cost off date
INF_REQ_085	INF_US_084	Compare TOTAL VAT obligation with VAT Saving pot.
INF_REQ_086	INF_US_088	Identify transaction events that are important to the SME client. For

		instance, Amazon refund and match with related transactions.
INF_REQ_087	INF_US_085	Auto Matching partly or fully paid invoices to related transaction.
INF_REQ_088	INF_US_085	Identifying unmatched invoices/transactions and allowing manual matching of partly or fully paid invoices to related transaction.
INF_REQ_089	INF_US_085	Providing matching propositions for invoices/transactions where no exact match could be found.
INF_REQ_091	INF_US_090	To allow to collect feedback from SME client in order to rank insights according to their usefulness (e.g., Amazon 5-star rating system) and to determine visualization priority/ location
INF_REQ_092	INF_US_090	To allow to collect information from SME client in order to support other user stories evaluation in case of missing or extra required information through kind of questionnaire.
INF_REQ_094	INF_US_043	Analyse transactions on normal/abnormal behaviour based on customer-group classification
INF_REQ_099	INF_US_106	NLU model able to detect concepts related to the banking domain languages

5.2 Stakeholder Requirements: Should priority

Table 22 - Stakeholders' Requirements with Should priority

Requirements ID#	Origin	Requirements
INF_REQ_004	INF_US_004	Enable third parties to send/upload data to the distribution channel tool
INF_REQ_019	INF_US_020	Allows integration of added value services like analytics and data enhancement from a trusted organisation
INF_REQ_020	INF_US_021	Provides a service that allows businesses to share identification and account & transaction information safely with customers, partners (including government) and banks
INF_REQ_024	INF_US_024	Check blockchain asset deposits to see if they can

		be traced to published or company internal fraud related addresses.
INF_REQ_028	INF_US_028	Create an approach for analysis of entire agricultural insurance portfolios of users (clients) via data sets
INF_REQ_047	INF_US_057	Mapping between speed limits and connected vehicles speed data
INF_REQ_049	INF_US_071	Support of EO data analysis that feeds the on-farm loss adjusting
INF_REQ_050	INF_US_072	Remotely (EO data analysis) be able to conduct loss adjusting for specific perils (flood, fire, ...)
INF_REQ_054	INF_US_076	Enable to identify priority areas based on agricultural risk mapping
INF_REQ_059	INF_US_083	Allow defining a threshold which is in line with business type, behaviour and industry best practices and based on Days cash on hand benchmark
INF_REQ_061	INF_US_085	Know the most likely time a specific invoice will be paid
INF_REQ_063	INF_US_087	Creation a mechanism to manage the obligation by being alerted in time. For upcoming payments and potential cancellation options as well as to identify any multiple subscriptions /recurring payments for the same purpose or alternative options
INF_REQ_065	INF_US_089	Enable the basic insights regarding cost structure and compare this to other SMEs in a similar position
INF_REQ_067	INF_US_090	Allow SME summaries on where the business stands (financial health matrix, performance matrix) compared to best practice knowledge/peer performance and the possibility to drill down to see what is behind the various KPIs.
INF_REQ_068	INF_US_091	Enable at any point in time the business status regarding financial health and performance to best practices/peers
INF_REQ_069	INF_US_092	Enable realistic budget benchmark per category as default value with the ability to override
INF_REQ_070	INF_US_092	Budget recommendations to be based on best practice and peer information.
INF_REQ_071	INF_US_093	Dynamically adjust budget(s)
INF_REQ_072	INF_US_097	Provides a system that reliably examines the various systems and products for their risk and that can be changed flexibly
INF_REQ_076	INF_US_103	Provide a procedure for automatic claim processing to increase the speed (effectiveness) of loss adjusting/claim handling procedure

INF_REQ_077	INF_US_031	Enable lifestyle measurements of users
INF_REQ_081	INF_US_063	Provide reasoning for fraud detection
INF_REQ_093	INF_US_104	Keep KYC data up to date
INF_REQ_096	INF_US_014	Provides statistical data analysis and behaviour patterns discovering system
INF_REQ_097	INF_US_073	Automate the implementation of expert knowledge criteria
INF_REQ_098	INF_US_105	Delivers reusable and scalable services, with data government and models versioning
INF_REQ_100	INF_US_107	Enable the classification of textual items according to reference banking classification taxonomies

5.3 Stakeholder Requirements: May priority

Table 23 - Stakeholders' Requirements with May priority

Requirements ID#	Origin	Requirements
INF_REQ_015	INF_US_017	Enable the mechanism to offer new digital services by fostering sharing and 'trust' relationships with and between customers
INF_REQ_021	INF_US_022	Allows integration of added value services like analytics and data enhancement from a trusted organisation
INF_REQ_031	INF_US_035	Adjust the price of insurance to the Identified insurance needs. Best relation product (insurance needs) versus price
INF_REQ_034	INF_US_038	Managing users/clients wealth through an AI based tool
INF_REQ_036	INF_US_039	Customization of fully automated processes
INF_REQ_037	INF_US_040	Use the preset preferences to monitor a portfolio's health
INF_REQ_038	INF_US_040	Users have to be able to customize his preset preferences
INF_REQ_040	INF_US_043	Enable to detect movement of the proceeds of crime into and out of the bank
INF_REQ_046	INF_US_051	Automatic verification of VIN number
INF_REQ_052	INF_US_074	Use user's preferences to create AI based portfolios
INF_REQ_090	INF_US_088	Identify potentially avoidable expenses (e.g., high amount of ATM fees) utilizing any available data in relation to other products / peers.
INF_REQ_095	INF_US_044	Generate "FC-Score", i.e., measure of Financial Crime probability for transaction analysed as

D2.2-User Stories and Stakeholders' Requirements - II

		abnormal
INF_REQ_101	INF_US_107	Improve accuracy of reference banking classification taxonomies, according to NLU process result
INF_REQ_102	INF_US_108	Enable the mapping of a logical link between textual items, banking processes and Informational assets

6 Conclusions and Future Work

The work carried out in *Task 2.1 - User Stories and Analysis of Stakeholders' Requirements*, started with the definition of an approach to streamline the process of gathering INFINITECH User Stories, and enable the elicitation of Stakeholder Requirements. This approach, based on the Value Proposition canvas, was divided in 3 Steps: Characterisation of Users, Definition of the User Stories and Elicitation of Stakeholder Requirements.

This document *D2.2 -User Stories and Stakeholders' Requirements – II*, is an update to the *D2.1 -User Stories and Stakeholders' Requirements – I* and provides an update on the User Stories, based on the continuous feedback from INFINITECH Pilots leaders and the work carried out in the other WP2 tasks. The User Stories were then used as the baseline for the elicitation of the Stakeholder Requirements also present in this document, which is the main outcome of the rest of *Task 2.1*.

Currently, we have:

- 108 different User Stories.
- 41 Jobs to be done
- 57 Pain
- 40 Gains
- 102 Requirements

In the following picture we can see how the requirements are distributed in terms of priorities.

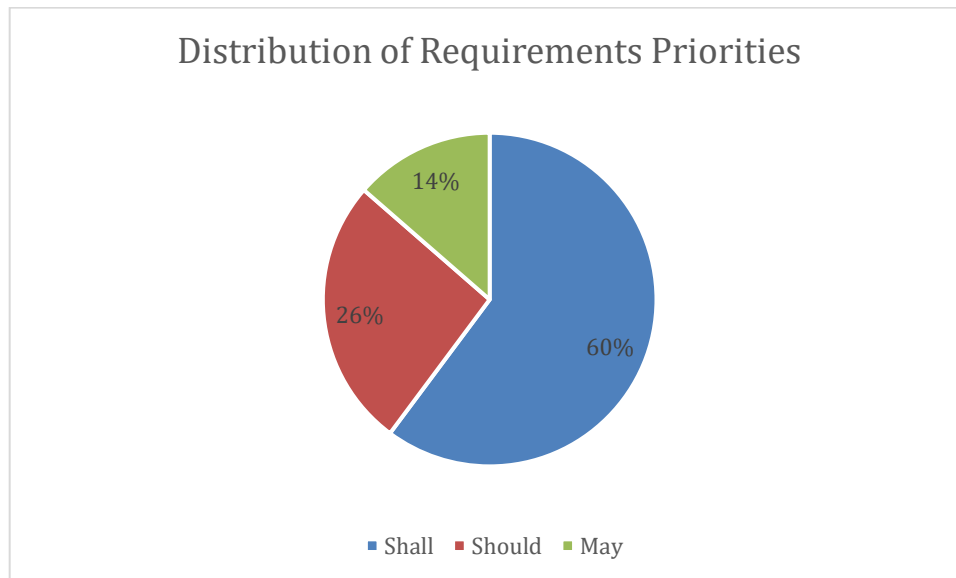


Figure 4 - Distribution of the Stakeholders' Requirements Priorities

The Stakeholder Requirements are going to be available also in the project repository (Gitlab) in order for the WP technical partner to be able to follow up on what needs to be done for the INFINITECH project.

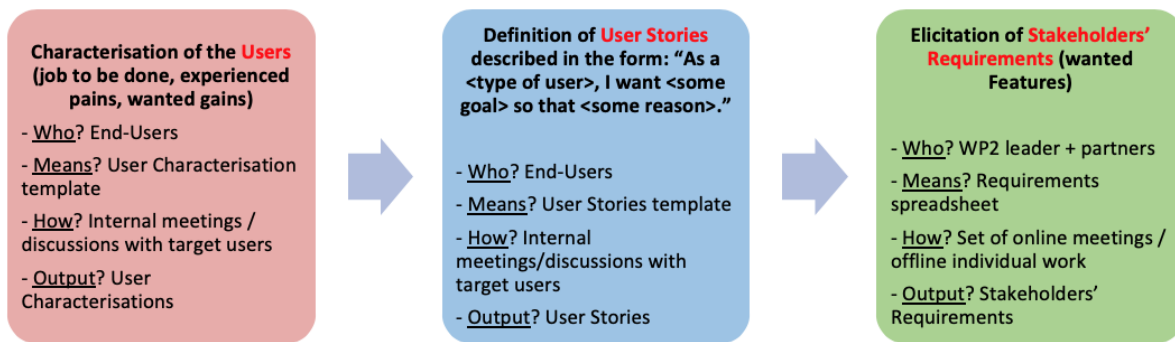
This deliverable D2.2 meets the T2.1 proposed objectives in its fullness as it is explained in the following table:

Table 24 - T2.1 objectives and accomplishment

Objectives	How it is accomplished
Cover the full range of services and processes in the financial and insurance sectors	The pilots present in the INFINITECH project and that took part in the elicitation of the Requirements range in all of the financial and insurance sectors defined in the DoA.
Services will be analysed on the basis of user stories	In order to elicit the Requirements, it was used a methodology that requires the definition of User Stories and are present in the deliverable
Identify the most important problems in the services related processes	As part of the User Characterization and User Stories definition it was possible to describe the Pains, Gains and Jobs to be done, which are also described throughout the document.
Elicit, analyse and document stakeholders' requirements	The elicitation of the Requirements was done based on the User Stories and is also present in the document.
Requirements will be documented in a structured way	In D2.2 the Requirements are documented always in relation to a specific User Story.

7 Appendix A: Questionnaire - User Characterisation & User Stories

User Characterisation



User Characterisation provides a view of the users, job to be done, wanted gains and experienced pains.

Job(s) to be done	<p><i>Describe what a specific user is trying to get done. It could be the tasks they are trying to perform and complete, the problems they are trying to solve, or the needs they are trying to satisfy. Outline in which specific context a job is done, because that may impose constraints or limitations.</i></p> <ul style="list-style-type: none"> • « Job to be done #1 »: « Detailed description of the Job to be done » • « Job to be done #2 »: « Detailed description of the Job to be done » • ...
Gains 😊	<p><i>Describe the benefits your User expects, desires or would be surprised by. This includes functional utility, social gains, positive emotions, and cost savings.</i></p> <ul style="list-style-type: none"> • « Gain #1 »: « Detailed description of the expected Gain » • « Gain #2 »: « Detailed description of the expected Gain » • ...
Pains 😞	<p><i>Describe negative emotions, undesired costs and situations, and risks that the User experiences or could experience before, during, and after getting the job done.</i></p> <ul style="list-style-type: none"> • « Pain #1 »: « Detailed description of the experienced Pain » • « Pain #2 »: « Detailed description of the experienced Pain » • ...

User Stories

User Stories are short, simple descriptions of a feature told from the perspective of the person who desires the new capability, usually a user or customer of the system.

User Stories	As a «type of user», ...	... I want «some goal» ...	... so that «some reason».
	<i>Identify the customer job(s) to which this user story relates.</i>	<i>Describe the intended goal that the user expects to be fulfilled.</i>	<i>Identify the reason(s) to which this user story relates.</i>
User Story #1	« type of user »	« some goal »	« some reason »
User Story #2	« type of user »	« some goal »	« some reason »
User Story #3	« type of user »	« some goal »	« some reason »
User Story #N	« type of user »	« some goal »	« some reason »

Authorship

Created by	Name & contact of the contact(s) person who provided this information
Date	Date of when this information has been provided
Dissemination level	Public



8 Appendix B: Jobs to be done – Complete list

JOB ID #	Jobs to be done	Pilot Category
INF_JOB_01	A bank or an exchange company is going to accept deposits of public blockchain assets such as crypto currency (e.g., bitcoin and ether) and tokenized assets (e.g. ERC20 tokens). Assets are transferred from a client’s blockchain address to the company’s blockchain address. Starting from the client’s address, previous transactions need to be traced so as to find out if the deposited assets originated directly or indirectly from blacklisted addresses that were used in fraudulent activities. If fraudulent activity is traced, the deposit should be rejected and/or informed to law enforcement officials. Since all over the world, fraud related addresses may be blocked by others, if the company accepts or exchanges such fraud related assets, it means it may incur a heavy loss since these fraud related assets cannot be sold to customers or anyone in the world.	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_02	A client exchanging their blockchain assets for other assets, want “clean” assets (i.e., non fraud related assets). The client also does not want the company to accept and own fraud related assets, because this may make the company financially insecure which indirectly puts clients’ balances at risk.	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_03	A Loss adjuster helps farmers who suffered a loss to calculate the financial loss to crops (or livestock). They inspect fields and crops where a claim has been made and discuss the findings with the farmer. The damage reported will trigger the payment from the insurance company according to agreed terms and conditions.	Configurable and Personalized Insurance Products
INF_JOB_04	A new client wants to get a health insurance for themselves and potential family members.	Personalized Usage-

	Interested in good premiums that reflect their personal needs.	Based Insurance Pilots
INF_JOB_05	AI constructed portfolio proposition: a financial advisor/institution needs to propose a new bespoke portfolio to a client. The channel through which this task is carried out is either an advisor, relationship manager or a software application which the client accesses directly. The portfolio needs to be a better version of the current one and be tailored to the client's preferences or advisor's suggestions.	Personalized Retail and Investment Banking Services
INF_JOB_06	An Actuary deals with the measurement and management of risks and uncertainty. The probability of occurrence of a certain risk can significantly impact the overall result of a company. An Actuary assesses financial security systems (e.g. insurance) with a focus on complexity, mathematics (statistics) and underlying mechanisms (modelling). Based on the actuary's analytics, an Insurance/Reinsurance Company is able to add a price tag to a certain risk with the ultimate goal to develop and sell more comprehensible products.	Configurable and Personalized Insurance Products
INF_JOB_07	An existing client of an insurance company claims a change in personal lifestyle that reduces risks. The company needs to collect data in order to assess this behavioural change.	Personalized Usage-Based Insurance Pilots
INF_JOB_08	An insurance company is about to sell an insurance product to a new client. The company does not have any prior information about the client in order to (a) estimate the associated risk and (b) select the product best fitting the client so it has to gather data from different sources. The Insurance Company need to understand better the privacy implications of this data collection process.	Personalized Usage-Based Insurance Pilots
INF_JOB_09	An insurance company needs to update the risks of its SME clients, in real time, to assess the changes that have occurred in the SME and increase customer retention with right coverage and premium levels.	Configurable and Personalized Insurance Products
INF_JOB_10	An insurance company realizes that the coverage of its SME clients has become obsolete due to its constant evolution and needs to identify new insurance needs to (a) cross-selling (b) reach its customers with the perfect product in the right time	Configurable and Personalized Insurance Products
INF_JOB_11	An Underwriter (UW) analyses risk in insurance proposals and determines policy terms for his/her client. On the basis of statistical information provided by the Actuary, the UW calculates premiums and recommends the wording of policies. The UW is also responsible to collect background information and to assess the overall risk of the business he is about to write. UWs are in close contact with insurance brokers and direct customers.	Configurable and Personalized Insurance Products
INF_JOB_12	Bank #1: Facilitate 'trustworthiness' that will enhance Bank brand and enable sharing business models. Banks need to satisfy customer demand for new digital customer	Personalized Retail and Investment

	experiences making their lives easier and developing a trusted ecosystem is good for all parties.	Banking Services
INF_JOB_13	Creation of a Smart Virtual Advisor that will provide advice to SMEs by combining a set of Business Financial Management tools: SMEs today cannot focus on business development/growth due to having to spend a considerable amount of their valuable time running the business (administrative tasks). Business Financial Management (BFM) represent a set of tools that assists SMEs in managing their financial health by providing assistance with activities in the area of cash flow management, continuous cost analysis, budgeting, revenue review or VAT handling. BFM tools combined create a smart virtual advisor that leverages AI and data to generate personalized actionable insights at the right, most valuable time. Insights that consider not only past & pending transactions at a specific point in time but also expected and most likely future event(s).	Personalized Retail and Investment Banking Services
INF_JOB_14	Customer & Bank #2: Demonstrate mutually beneficial value from data and transparency of usage. Lack of transparency of data usage and data privacy is a growing personal and regulatory issue, however mature data control services including consent management are not available.	Personalized Retail and Investment Banking Services
INF_JOB_15	Customer #1: Sharing financial information with people you trust makes managing finances easier and more transparent. It also develops relationships which a beneficial from personal and business perspective. Sharing financial information is not easy today and currently involves paper copies, forwarding full pdf statements or sharing login credentials.	Personalized Retail and Investment Banking Services
INF_JOB_16	Employees of a bank have to calculate risks of their portfolio and of pre-trades. The bank uses two measures (VaR, ES) to calculate the risks of its positions and the effectiveness of its models. These calculations are used by traders, risk managers and sales managers to perform their respective tasks correctly. In addition, the calculations that make up the risk assessment and monitoring must comply with the regulations of the respective financial supervisory authorities.	Smart, Reliable and Accurate Risk Assessment
INF_JOB_17	Equip the Banks CRO with in-depth insights: The ability to have holistic SME business insight and resulting capability to assess a SMEs financial situation is essential to provide “Just in Time” business services/products to an SME, i.e. to provide working capital at the time needed.	Personalized Retail and Investment Banking Services
INF_JOB_18	Evaluation of portfolio health through AI engine: a portfolio needs to be evaluated on a regular basis to check that it continuously meets a set of criteria defined for this specific investor. The criteria represent the client’s preferences and overall performance of the portfolio.	Personalized Retail and Investment Banking Services

INF_JOB_19	Financial recommendations: To receive personalized offers clients have to look for the info by themselves in the several channels of the bank or contact a personal agent.	Personalized Retail and Investment Banking Services
INF_JOB_20	Insurance brokers are responsible for identifying and organising suitable insurance cover for commercial organisations and private clients (e.g. agricultural insurance companies, agricultural holdings, food processing). Brokers discuss and assess clients' current and future insurance needs based on risk profile, market data and portfolio information. The broker prepares reports for the insurance underwriter and renews or amends existing policies for the client.	Configurable and Personalized Insurance Products
INF_JOB_21	Investors in financial markets are often at a loss when facing a huge range of products. For financial institutions also, how to recommend products to the right investors, especially those without previous investment records is problematic.	Personalized Retail and Investment Banking Services
INF_JOB_22	Maximum efficiency in the daily management of clients' accounts. Nowadays, customers have to check their accounts regularly and make a manual expense forecast to keep up with the charges in their accounts.	Personalized Retail and Investment Banking Services
INF_JOB_23	Provide advise that factors in data from all relevant data sources: An incomplete view can easily result in the wrong decisions being taken. Based on this it is essential to enhance the banks owned data with other data sources. In this regard, focus should be given in particular to the SME ERP/Accounting data integration but also other sources such as existing public data portals (e.g. country specific government data portal).	Personalized Retail and Investment Banking Services
INF_JOB_24	Selection of funds: a firm needs to help clients select funds to invest in from an extensive list. This needs to be done in a systematic manner based on some tangible criteria which represent risk, return and each client's personal preferences.	Personalized Retail and Investment Banking Services
INF_JOB_25	The Bank employs large teams of people to review suspicious transactions that are referred to them by the system that detects potential suspicious transactions. The bank wants to reduce the number of false positives that go to those teams.	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_26	The Bank's customers make millions of transactions a day. The bank needs to be able to identify transactions that are moving the proceeds of crime (money laundering).	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_27	The banks must pay for each physical copy of the documents that the notaries generate in each notarial service and must control the invoices generated by the notaries.	Smart, Reliable and Accurate Risk Assessment
INF_JOB_28	The banks require notarial services for the contracting of several financial products with	Smart, Reliable and

	their customers (as mortgages, ...).	Accurate Risk Assessment
INF_JOB_29	The EU Directive 2015/849, (4AMLD) requires from the competent supervisory authorities to consider risks, while carrying out supervisory activities (Risk Based Supervision (RBS)). According to RBS the frequency and intensity of supervisory engagement has to be proportionate to the risk of money laundering and terrorist financing (ML/TF risk) to which a specific financial institution (FI) under the scope is exposed. In order to define ML/FT risk profile of particular FI, the competent supervisory authority must assess FI inherent risk, and its control environment to prevent such risks. For determining and evaluating the inherent risk, different data has to be taken into consideration (e.g. the size of the institution, the diversification of the business network, the existence of subsidiaries, the volume of business, the structure of clients, the set of products and services, etc.). In this regard, a wide range of different sources of information need to be combined, used and continually updated as RBS is not a one-off exercise, but an ongoing and cyclical process.	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_30	The insurance company collects information from various sources in order to authenticate the data provided by the insured.	Personalized Usage-Based Insurance Pilots
INF_JOB_31	The insurance company needs to improve its subscription process since this is inaccurate and inefficient. It is inaccurate because it cannot verify that the data that has been entered is one hundred percent correct and inefficient because it has a high cost.	Configurable and Personalized Insurance Products
INF_JOB_32	The insurance company wants to determine driver’s profile in order to re-evaluate company’s pricing policy for the insured.	Personalized Usage-Based Insurance Pilots
INF_JOB_33	The insurance company wants to provide the insured with an insurance policy. In order to do that the insurance company takes into consideration specific parameters provided by the insured and other sources in order to evaluate the risk as accurate as possible.	Personalized Usage-Based Insurance Pilots
INF_JOB_34	The insured provides all the requested data to receive a personalised insurance policy that fits his needs and his driving profile, with a fair pricing.	Personalized Usage-Based Insurance Pilots
INF_JOB_35	The notaries generate many physical documents, but some of the physical copies are useless for the bank and for the end customer.	Smart, Reliable and Accurate Risk Assessment
INF_JOB_36	The objective of the client is to obtain maximum profit in a bearable risk level, based on investing profile, style, interests, and risk aversion.	Personalized Retail and Investment

		Banking Services
INF_JOB_37	The recent come into force of PSD/2 regulation, opens Financial Services’ market to fintech operators, providing them access to online services by introducing a bunch of standardised sets of REST APIs. This disruptive change paves the way for the development of a totally new panorama of online, integrated offering of financial services, but at the same time, an unprecedented set of new threats and cyber-attacks (or cyber-enabled attacks) is expected to show up. Just to make an extreme but significant example, a single logical/conceptual vulnerability in the standardised APIs architecture, could lead to a potential major and widespread service impairment, possibly affecting hundreds of banks and millions of customers at the same time at EU level, at the speed of a software script execution. Therefore, in order to mitigate the risk of such kind of scenarios to become real, some technical risk-mitigating security measures must be adopted, including monitoring really high volumes of financial transactions: 1) in near real-time; 2) in a semi-automated manner; and 3) looking for non-intuitive, non-evident, ever seen before, fraud schemas.	Predictive Financial Crime and Fraud Detection Pilots
INF_JOB_38	The saving processes. If customers want to save money in a long-term way, they have to make their own saving plan and they have to carry out the plan.	Personalized Retail and Investment Banking Services
INF_JOB_39	This pilot will leverage large customer datasets and large volumes of customer-related alternative data sources in order to make the process of providing investment recommendations to retail customer more targeted, automated, effective, as well as context-aware (i.e. tailored to state of the market).	Personalized Retail and Investment Banking Services
INF_JOB_40	Data Governance Officer wants to detect key concepts related to the internal regulatory processes and documents	Smart, Reliable and Accurate Risk Assessment
INF_JOB_41	Enterprise Architects and Data Governance Officers need to understand the link between key concepts and a common standard taxonomy (eg. Data, processes, business application etc) to create a unified reference glossary	Smart, Reliable and Accurate Risk Assessment

9 Appendix C: Gains – Complete list

GAIN ID #	Gains	Pilot Category
INF_GAIN_01	A privacy aware approach of the tool offers a competitive advantage for the insurance company and diminishes the risk of the data collection	Personalized Usage-Based Insurance Pilots
INF_GAIN_02	An automation of the subscription process helps the insurance company reduce costs. In addition, being able to verify that the data entered is correct with a double verification avoids possible errors in the cost of the insurance premium	Configurable and Personalized Insurance Products
INF_GAIN_03	Analysis of big data coming from wide range of different sources (e.g. payment transactions, data acquired from the FI; business register etc.) will be improved.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_04	Automation of frequent operations to facilitate the continuous management of client's accounts.	Personalized Retail and Investment Banking Services
INF_GAIN_05	Bank becoming a Trusted Business Advisor: Providing the SMEs with value-adding insights with the top priority being to foster SME development/ growth and at the same time releasing SMEs as much as feasible from costly admin tasks will contribute towards the bank to be seen as a trusted business advisor.	Personalized Retail and Investment Banking Services
INF_GAIN_06	Business –share information with customers, partners, government and banks and vice-versa. Develop business relationships by fostering trust both ways and exposes business data and networks that facilitate analytics and innovative forms of customer appraisal - customer satisfaction, credit worthiness, loyalty, etc.	Personalized Retail and Investment Banking Services
INF_GAIN_07	By adopting AI-based transaction monitoring, it is expected that previously unknown fraud schemas or anomalous and potentially criminal behaviours would be detected (e.g. violations to the anti-money laundering regulations, data abuse, etc.), THUS bringing a significant positive impact to various areas: 1) compliance to PSD/2, GDPR and AML regulations could be maintained by – for example – even when analysing critical (in terms of privacy) data flows by using fully-automated AI-driven processes (no-human in between) and adopting a black-box approach; 2) significant money saving could be obtained by detecting previously unknown fraud schemas or novel criminal behaviours at the very same moment they are happening (near-real-time detection); and 3) the	Predictive Financial Crime and Fraud Detection Pilots

	effectiveness of traditional software-assisted, semi-automated, rule-based, monitoring and analysis processes of financial data-flows, could be dramatically improved by adopting high-performing automated transaction monitoring processes, that could help reducing the number of false-positives, by analysing transactions and context features, detecting by similarity (e.g. in impact or behaviour) to previous cases, cataloguing threats and providing first-responders to security incidents with the availability of possible mitigating actions, that could be immediately adopted to counter current attacks.	
INF_GAIN_08	Changes to terms of service are communicated timely and in an understandable way.	Personalized Usage-Based Insurance Pilots
INF_GAIN_09	Community - transparency for members & fundraisers to subscriptions and charity bank accounts: 1) Increase Trust & Funding; 2) Recognise Support & Sponsors	Personalized Retail and Investment Banking Services
INF_GAIN_10	Comparative view of customers who have the same profile with same incomes and situation.	Personalized Retail and Investment Banking Services
INF_GAIN_11	Customer retention. Insurance companies that are active in smaller markets often do not have the resources to invest in risk analytics and modelling. Hence, brokers as intermediaries can provide independent consulting services and retain successful client relationship.	Configurable and Personalized Insurance Products
INF_GAIN_12	Data gathering will be automated, transparent and will include data quality control.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_13	Due to more effort-efficient risk assessment process, additional resources can be focused on the supervision of high risk FI.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_14	Family - Permissioned access to view account balances and transactions enables: 1) Student Loan and Spending Oversight; 2) Dependent Parent account Oversight; 3) Monitor Household spending	Personalized Retail and Investment Banking Services
INF_GAIN_15	Flexibility and customization: the tool has the ability to tailor a proposal to various client preferences, which could be risk-driven (lower/higher risk awareness) but also thematic driven (like ESG criteria, or some other thematic preconditions, as E-mobility). This set of preferences can be widely customized and augmented given the flexibility of the (AI based) algorithm.	Personalized Retail and Investment Banking Services

D2.2-User Stories and Stakeholders' Requirements - II

INF_GAIN_16	Friends - authorise sharing identification and financial information with friends in a way you trust: 1) Share expense details with friends; 2) Make new friends be increasing trust; 3) Helps share assets with 'trusted' friends	Personalized Retail and Investment Banking Services
INF_GAIN_17	Improved offering of insurance cover. When above described client is able to provide better data on risk distribution and portfolio structure (e.g. geolocation), the broker is able to conduct better analysis (modelling) and consequently provide individual insurance cover solutions.	Configurable and Personalized Insurance Products
INF_GAIN_18	Improved risk assessment and benefits from risk diversification	Configurable and Personalized Insurance Products
INF_GAIN_19	Improved Risk information. The services developed in Pilot No#14 will help to identify areas where high crop productivity meets high catastrophe probability	Configurable and Personalized Insurance Products
INF_GAIN_20	Increased SME business success: Today there is a high rate of SME business defaulting with one of the major reasons being SMEs do not have a correct cash flow view. The Smart Virtual Advisor facilitates the right ecosystem (e.g. tools, financial/legal/insurance products) to be in place in order to succeed in today's global digital world where real time notifications/alerts are a must. In particular, the BFM tools support cash flow awareness & optimization, cost control through dynamic budgets and potential fast and seamless access to the right financial product (e.g. working capital).	Personalized Retail and Investment Banking Services
INF_GAIN_21	Interactivity in a simple and intuitive way.	Personalized Retail and Investment Banking Services
INF_GAIN_22	Invoices digital processing with Artificial Intelligence provide a solution to extract relevant indicators from the invoices that will be used to determine the sustainability score and to rate notaries based on a sustainability index.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_23	Lean damage assessment and claims handling. Time required for loss adjusting will be reduced and claims handling procedures significantly streamlined to increase the speed of indemnity pay-outs to insurance clients.	Configurable and Personalized Insurance Products
INF_GAIN_24	Life – conveniently share financial information easily with businesses, government, Landlords, utility companies, banks, etc: 1) Demonstrate loyalty and proof of Purchase; 2) Access up new services (eGovernment); 3) Profit from personal data – improved KYC, Credit Assessment, etc; 4) Verification of Identity	Personalized Retail and Investment Banking Services

INF_GAIN_25	More comprehensive Datasets. By using EO data, Weather Intelligence, agro-geological databases and crop monitoring, the service will create additional datasets with high predictive value for actuary and underwriter use.	Configurable and Personalized Insurance Products
INF_GAIN_26	New Revenue Streams: Streamlined, higher degree of automation/ digitalization and connection to the SME allows the bank to assess customer situation in real time and consequently to reduce cost and at the same time generate additional revenue streams and higher conversion rates.	Personalized Retail and Investment Banking Services
INF_GAIN_27	Notifications or alerts of cashflow movements.	Personalized Retail and Investment Banking Services
INF_GAIN_28	Personal life changes (e.g., children, moving to a new house, job changes from handicraft to office work) can be easily communicated to the insurance company and are timely reflected in updated policies	Personalized Usage-Based Insurance Pilots
INF_GAIN_29	Regulatory advantages: the tool is able to model regulatory constraints and take them into account during the AI portfolio construction. This could also help to identify, if AI as a technology could be used within Wealth Management with relevant positive impact.	Personalized Retail and Investment Banking Services
INF_GAIN_30	Retail customers will gain access to a service previously offered only to high net worth individuals.	Personalized Retail and Investment Banking Services
INF_GAIN_31	Risk assessment as an ongoing and cyclical process will be improved with automated feeds from big data analysis.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_32	Risk assessment process will be more cost efficient due to less time needed for data gathering tasks, assessment of the FI and sector risk and semi-automated features.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_33	Sales managers can therefore prove the risks to their leads in real time.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_34	Sales managers can therefore prove the risks to their leads in real time.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_35	Scalability: the tool can enable a firm or it's advisors to deal with a large number of accounts at different wealth levels at the same time with minimal increase in workload, so	Personalized Retail and Investment

	that a kind of “Private Banking offering” can be provided to a larger audience.	Banking Services
INF_GAIN_36	The bank is provided with a system with which it can calculate VaR and ES in real time. The data is up-to-date and does not have to be downloaded and analysed afterwards as usual. Risk managers and traders both have real-time access to analysis of pre-trades and can evaluate them both individually and at the overall portfolio level.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_37	The bank is provided with a tool to reduce the cost related with useless physical copies.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_38	The client benefits from individualized insurance offer and state-of-the art eServices that supports being up to date with insurance products they already have.	Personalized Usage-Based Insurance Pilots
INF_GAIN_39	The clients will be rest assured that all assets withdrawn will be clean (non-fraud) related assets which can be safely transferred to other companies.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_40	The company is provided with a blockchain transaction graph analysis tool to trace transactions associated with fraudulent client deposit addresses. The tool operates on big blockchain data from multiple chains like Ethereum and Bitcoin. The tool operates in parallel on partitioned transaction graph and hence it is fast and scalable and will also handle future massive transaction data when transaction throughput performance of blockchains improve from tens to hundreds of transactions per second	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_41	The company is provided with a tool to better assess the risk involved in this potential health insurance policy. This tool collects real-world data from the potential client, estimates the associated risk and allows the company to adjust the insurance fees of the client. This way the risk of the company is minimised, and clients exhibiting low risk benefit from lower insurance fees	Personalized Usage-Based Insurance Pilots
INF_GAIN_42	The identification of previously undetected criminal behaviour will be good for both society and the bank.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_43	The insurance company can evaluate the risk in the most accurate way.	Personalized Usage-Based Insurance Pilots
INF_GAIN_44	The insurance company with the tool provided can determine any inconsistency with the data provided by the insured.	Personalized Usage-Based Insurance

		Pilots
INF_GAIN_45	The insured receives an insurance policy that satisfy his needs with the lowest tariff.	Personalized Usage-Based Insurance Pilots
INF_GAIN_46	The monitoring and identification of real-time risk changes allows the company to know if the insurance cost really corresponds to the real risk of the SME or if it should increase or decrease it to adapt it to its current situation	Configurable and Personalized Insurance Products
INF_GAIN_47	The new information on SME customers allows cross-selling to better adapt to customer needs and increase the conversion rate, compared to previous sales campaigns	Configurable and Personalized Insurance Products
INF_GAIN_48	The personal investment advisors will feel more comfortable having information for the recommendations they provide.	Personalized Retail and Investment Banking Services
INF_GAIN_49	The reductions in the number of false positive reports of suspicious transactions will reduce the amount of work done by the teams that have to manage investigation of suspicious alerts.	Predictive Financial Crime and Fraud Detection Pilots
INF_GAIN_50	The risk assessment process is automated, reducing the assessment costs of the company.	Personalized Usage-Based Insurance Pilots
INF_GAIN_51	The risk assessment process is automated, reducing the assessment costs of the company.	Personalized Usage-Based Insurance Pilots
INF_GAIN_52	This system will be aimed to be adopted by the whole banking industry as a means of ensure more sustainable businesses.	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_53	Time and cost savings	Configurable and Personalized Insurance Products
INF_GAIN_54	Time efficiency and engagement: automating and systematizing what is traditionally a manual process for an advisor saves time that can be spent on relationship management and engagement	Personalized Retail and Investment Banking Services
INF_GAIN_54	Banks are provided with a tool able to standardise the documentation analysed	Smart, Reliable and Accurate Risk

D2.2-User Stories and Stakeholders' Requirements - II

		Assessment
INF_GAIN_54	Increased Automation and Intelligence based on data processing leveraging data governance processes	Smart, Reliable and Accurate Risk Assessment
INF_GAIN_54	Improve the analysis and comprehension capabilities of internal documents and contents	Smart, Reliable and Accurate Risk Assessment

10 Appendix D: Pains – Complete List

PAIN ID #	Pains	Pilot Category
INF_PAIN_01	Adaptation of existing insurance products, change of terms and conditions	Configurable and Personalized Insurance Products
INF_PAIN_02	Adaptation to new information input and insurance products	Configurable and Personalized Insurance Products
INF_PAIN_03	Adaptation to new technology and integration into day to day business process (training required)	Configurable and Personalized Insurance Products
INF_PAIN_04	Adaptation to new technology and integration into day to day business process (training required)	Configurable and Personalized Insurance Products
INF_PAIN_05	Climate Risk, increases risk exposure for Ins. Companies	Configurable and Personalized Insurance Products
INF_PAIN_06	Communication of investment recommendations to retail customers is subject to regulatory limitations, therefore the operationalization of this service should be implemented diligently.	Personalized Retail and Investment Banking Services
INF_PAIN_07	Complex data search and data analysis is time consuming, costly and effort prone	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_08	Conventional supervisory planning is time consuming and effort prone	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_09	Currently fraud detection attempts leveraging on financial transactions data monitoring, requires relevant human efforts and generates a number of false positives which causes supplemental efforts by fraud analysts; this issue should be addressed by the INFINITECH project	Predictive Financial Crime and Fraud Detection Pilots

D2.2-User Stories and Stakeholders' Requirements - II

INF_PAIN_10	Daily management: customers do not know what happens in their accounts in real-time if they do not check it constantly.	Personalized Retail and Investment Banking Services
INF_PAIN_11	Data collection is time consuming and prone to human error.	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_12	Data quality makes investigation of financial crime onerous.	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_13	Development of diverse policies is time-consuming.	Configurable and Personalized Insurance Products
INF_PAIN_14	Financial Product Availability: Due to the Banks limited insight into the SME business it takes considerable time to obtain the required financial product (e.g. lending) or financial advice and often results into the SME losing opportunities or even into more severe financial distress.	Personalized Retail and Investment Banking Services
INF_PAIN_15	Goals and savings: clients cannot manage their finances with the purpose of saving and taking into account variable payments.	Personalized Retail and Investment Banking Services
INF_PAIN_16	I recognise my data is worth something, but I am not getting any value or return from it – INFINITECH could help you realise that value with analytics and anonymization of data and also maximise 'untapped' value of your relationships with other members of sharing network	Personalized Retail and Investment Banking Services
INF_PAIN_17	It is difficult to share financial data easily - A simple data sharing application would make life easier by providing a trusted mechanism to share information digitally in a few clicks	Personalized Retail and Investment Banking Services
INF_PAIN_18	Long-term control of their finances: users do not have long-term view of their finances and cannot control their future expenses.	Personalized Retail and Investment Banking Services
INF_PAIN_19	Missing (real-time) Financial/Performance KPIs: Many SMEs cannot obtain a real time picture of their business resulting into wrong and delayed business decisions	Personalized Retail and Investment Banking Services
INF_PAIN_20	Possible loss of jobs	Configurable and

		Personalized Insurance Products
INF_PAIN_21	Regulators are acknowledging the benefits of the new, faster system and increasing the demands and requirements on the bank and its reporting, leading to new problems and pressure for the bank.	Smart, Reliable and Accurate Risk Assessment
INF_PAIN_22	Significant change in existing actuary, underwriting and Loss adjusting processes.	Configurable and Personalized Insurance Products
INF_PAIN_23	Technical and financial literacy: the burden of decision-making is shifted entirely onto the end users of the tool, this may be the advisor alone, or the advisor-client duo within an advisory journey. Success of the process will depend on guiding the end user to properly use the tool and deploying the tool in a sufficiently user-friendly environment and manner.	Personalized Retail and Investment Banking Services
INF_PAIN_24	The assessment burden is transferred from the company to the client, who has to comply with the assessment protocol (collection of RWD for some period of time, involving wearing an activity tracker and answering questionnaires). The client needs incentives to accept this (expectation of lower insurance fees) as he/she can be concerned about the collection of personal data	Personalized Usage-Based Insurance Pilots
INF_PAIN_25	The bank expends a lot of effort having to check suspicious transaction alerts.	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_26	The banks have an extra high cost for physical copies of the documents.	Smart, Reliable and Accurate Risk Assessment
INF_PAIN_27	The client has the feeling that it is not properly attended by the insurer since there is no update of the information of its activity	Configurable and Personalized Insurance Products
INF_PAIN_28	The insured must accept to install at his vehicle a device which will provide the insurance company with driving information.	Personalized Usage-Based Insurance Pilots
INF_PAIN_29	The insured should provide the company with more than the obligatory by law data and this is more time-consuming.	Personalized Usage-Based Insurance Pilots
INF_PAIN_30	The insurer has a feeling of lack of control over the risks of its client portfolio since it	Configurable and

	knows that the reality of its clients' activities changes but they do not obtain updated information	Personalized Insurance Products
INF_PAIN_31	The notaries generate some physical and useless copies that originates extra burden in terms of paper wasted and financial costs.	Smart, Reliable and Accurate Risk Assessment
INF_PAIN_32	The subscription of the risks is inefficient and not very precise and therefore the insurer feels that it does not adjust the prices and the type of products to the reality of the market	Configurable and Personalized Insurance Products
INF_PAIN_33	Through automated analysis the broker is not able to add value as an intermediary anymore	Configurable and Personalized Insurance Products
INF_PAIN_34	Transaction/Accounting Reconciliation: SMEs spend considerable time and money (accountant expense) for reconciling banking data with their ERP/Accounting system.	Personalized Retail and Investment Banking Services
INF_PAIN_35	Transactions on public blockchains are carried through pseudo-anonymous addresses. When a client transacts on public blockchains, it is with the understanding that the transaction is visible and can be traced. The client may feel their transaction privacy is exposed if during graph traversal blockchain addresses are linked to other clients addresses or entities whose identities are known, hence, revealing with whom transaction is done. The customer will be rest assured that during graph traversals no identities of other entities will be input by the blockchain graph analysis tool, hence, fully respecting client transaction privacy.	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_36	Transparency over decisions taken by AI algorithms should be an objective to be pursued during INFINITECH project lifetime. This could dramatically mitigate disputes over potential fraud cases.	Predictive Financial Crime and Fraud Detection Pilots
INF_PAIN_37	Who can I trust with my data - I have trusted my bank to manage my money confidentially and securely for over 100 years. An easy to use and comprehensive data control and consent services would provide transparency of data usage and ensure data privacy	Personalized Retail and Investment Banking Services
INF_PAIN_38	Exploitation of data asset	Smart, Reliable and Accurate Risk Assessment
INF_PAIN_39	Harmonization of semantic representational models in the context of financial services	Smart, Reliable and Accurate Risk

		Assessment
INF_PAIN_40	Put together multiple banking, technical and academic stakeholder to achieve common objectives	Smart, Reliable and Accurate Risk Assessment

11 Appendix E: User Stories – Complete list

User Story ID#	As a «type of user», ...	... I want «some goal» ...	... so that «some reason».	Pilot Category
INF_US_001	Actuary	to create data sets for statistical analysis of a risk "X"	the price to cover the risk "X" highly correlates to the financial risk an insurance/reinsurance company is exposed to.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_002	Actuary	to create data sets for developing a new product in a market "Y"	the reinsurance/insurance company is able to increase its product accuracy with respect to market "Y" specifics.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_003	Analyst in supervision department	Analyst will have direct access to relevant up to date data, which are gathered automatically from internal sources.	Analyst sends the request to internal parties (departments within the supervisory authority) to gather relevant data and information for risk assessment. Data collection is time consuming due to the manual tasks.	Predictive Financial Crime and Fraud Detection
INF_US_004	Analyst in supervision department	Third parties will send/upload data to the distribution channel tool that analyst will have access to. Received data (especially from the FI) will be	Analyst receives relevant data from third parties (FI, FIU, other supervisory authorities) by e-mail. Data is manually extracted from e-mail and added in to the risk assessment framework.	Predictive Financial Crime and Fraud Detection

		automatically integrated into the risk assessment tool.		
INF_US_005	Analyst in supervision department	Based on the automated screening of the relevant data and predefined scenarios, tool will enable analyst to detect high-risk behaviour. In the first step, screening tool will identify potential high-risk behaviour and send an alert to the analyst. In the second step analyst will review alerts with potential high-risk cases and execute manual decision whether reviewed behaviour is high-risk or not.	Analysts manually executes analysis of the relevant data based on selected scenarios to identify high-risk behaviour of the specific FI of the whole sector.	Predictive Financial Crime and Fraud Detection
INF_US_006	Analyst in supervision department	Risk assessment tool will implement risk assessment methodology and enable automated calculation of the FI risk or the risk of the whole sector based on timely and up to date data. Based on different triggers coming from internal and external sources (screening tool, distribution channel) risk assessment tool will be informed to update the risk assessment. When confirmed by the analyst, reassessment will be executed automatically. Identified high-risk behaviour (as part of internal sources) will trigger a	On the basis or relevant data gathered from internal and external sources analysts assesses the risk of the FI and the sector manually. Reassessment of the FI or sector risk assessment is also done manually. Triggers for the reassessment comes from internal and external sources and has to be included in to risk assessment manually.	Predictive Financial Crime and Fraud Detection

D2.2-User Stories and Stakeholders' Requirements - II

		notification for the reassessment.		
INF_US_007	Bank	Propose the automation of frequent or repeated transactions patterns	Facilitate the continuous or semi-automated management of future invoices and subscriptions.	Personalized Retail and Investment Banking Services
INF_US_008	Bank	Establish a rating of financial units	Compare customer data regarding their estimated costs and business segmentation to be able to offer better information about their finances to end customers.	Personalized Retail and Investment Banking Services
INF_US_009	Bank	Obtain personalized recommendations taking into account the client's expense profile	Access to improvements in the client's financial situation through correct offers at the right time of offering for the client's case.	Personalized Retail and Investment Banking Services
INF_US_010	Bank	To provide the SME with actionable insights and recommendation on the right products at the right time.	SME customer loyalty is increased and the bank to be considered as a trusted business advisor that has the SME success as its first priority.	Personalized Retail and Investment Banking Services
INF_US_011	Bank	To recommend factoring services where it adds value to the SME business.	To improve SME cash flow.	Personalized Retail and Investment Banking Services
INF_US_012	Bank	To have comprehensive SME data available in order to provide lending solution tailored, personalized to the SME business.	Working capital (lending) can be provided in the shortest possible time and revenue income increased due to customers business growth.	Personalized Retail and Investment Banking Services
INF_US_013	Bank	Upgrade customer experience by automating the	Develop a better and more trustful relationship with customers and	Personalized Retail and

		<p>process of providing investment recommendations for the retail customers of the bank. Ensure that these recommendations are more tailored, effective and overall more acceptable from the customer's side.</p>	<p>also increase the trading volumes that are associated with high-value retail customers.</p>	<p>Investment Banking Services</p>
INF_US_014	Bank	<p>Get a invoices digital processing system</p>	<p>Digitalization of the bank process to ensure more sustainable businesses</p>	<p>Smart, Reliable and Accurate Risk Assessment</p>
INF_US_015	Bank	<p>Reduces physical copies of documents generated by notaries</p>	<p>Notarial service costs for the bank get reduced</p>	<p>Smart, Reliable and Accurate Risk Assessment</p>
INF_US_016	Bank	<p>Wants to have a flexible, secure and real-time risk analysis system</p>	<p>To enable the Bank's traders, risk managers and sales managers to perform their duties as efficiently as possible and to meet the requirements of financial regulators both now and in the future</p>	<p>Smart, Reliable and Accurate Risk Assessment</p>
INF_US_017	Bank - Ireland - Individual Bank or Orchestrated Consortium of Banks	<p>We want to offer a suite of new digital services by fostering sharing and 'trust' relationships with and between customers by: 1) Developing strong foundational reusable capabilities: a) Secure Data Sharing Mechanism; b) Data Trust – Brand and Culture; c) Simple Granular Permissions;</p>	<p>Because it: 1) Increases customer satisfaction and retention by offering improved services; 2) Distinguishes brand; 3) New revenue models and traditional sales uplift; 4) Leverages and enhances capabilities.(e.g. Open Banking, Network Analytics); 5) Satisfies customer demand for transparency and control.</p>	<p>Personalized Retail and Investment Banking Services</p>

D2.2-User Stories and Stakeholders' Requirements - II

		2) Initially providing a simple secure permissioned based 'read only' data sharing and customer identification services across all accounts within any API enabled bank, to support customer use stories above, but also Banking use cases like KYC and Credit Assessment.		
INF_US_018	Bank - Ireland - Individual Bank or Orchestrated Consortium of Banks	We want with the permission of users to use the 'exhaust' data from identification and account information services to enable added value services and analytics.	Because it: 1) Increases customer satisfaction and retention by offering improved services; 2) New revenue models and traditional sales uplift; 3) Leverages and enhances capabilities.(e.g. Open Banking, Network Analytics).	Personalized Retail and Investment Banking Services
INF_US_019	Bank - Personal (Retail Consumer Segment) Customer	I want a service which allows me to easily and securely share personal financial data with others. Personal information includes Customer identifiers and associated data, in addition to account, transaction and documentation data. "I want to control ..what I share ...with whom...and when."	Because sharing financial information with people you trust makes your financial life easier and more transparent.	Personalized Retail and Investment Banking Services
INF_US_020	Bank - Personal (Retail Consumer Segment) Customer	I want added value services like analytics and data enhancement (e.g. categorisation) from a trusted organisation to help manage my finances and make life easier.	Because working with a trusted partner to analyse your financial information makes your financial life easier and increases money in pocket.	Personalized Retail and Investment Banking Services

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_021	Bank - Small to Medium Sized Business Customer	I want a service that allows businesses to share identification and account & transaction information safely with customers, partners (including government) and our banks....and visa versa.	Because sharing financial data will help develop business relationships and KYC, because it fosters trust both ways and exposes business networks and facilitates analytics. Also as a Business customer I can reduce costs by participating in a sharing economy facilitated by a “trust” platform from the Bank.	Personalized Retail and Investment Banking Services
INF_US_022	Bank - Small to Medium Sized Business Customer	I want added value services like analytics and data enhancement (e.g. categorisation) from a trusted organisation to help grow my business.	Because working with a trusted partner to analyse your financial information makes can increase customer leads, satisfacton and profits.	Personalized Retail and Investment Banking Services
INF_US_023	Bank CRO	To obtain a 360 in-depth understanding of the customers/SME situation by exposing the insights the SME can see.	The CRO can provide value adding, i.e. meaningful and personalized advice to the SME business.	Personalized Retail and Investment Banking Services
INF_US_024	Bank/Exchange company	Check blockchain asset deposits to see if they can be traced to published or company internal fraud related addresses.	Do not allow fund withdrawals whose source originate from fraudulent addresses.	Predictive Financial Crime and Fraud Detection
INF_US_025	Bank/Exchange company	Support of multiple major chains such as Ethereum and Bitcoin.	Can relate customer's activity on multiple public chains and use a single analysis system rather than multiple systems for each chain.	Predictive Financial Crime and Fraud Detection
INF_US_026	Bank/Exchange company	Use a scalable parallel system that is able to handle massive number of transactions.	Can continue to use the system when the blockchain transaction processing performance (currently in the vicinity of ten transactions per second) is improved to	Predictive Financial Crime and Fraud Detection

D2.2-User Stories and Stakeholders' Requirements - II

			hundreds of transactions per second.	
INF_US_027	Bank/Exchange company	Trace customer address and related linked transactions to see if they originate from blacklisted addresses published by authorities.	Reject or block deposits as per decision by authorities.	Predictive Financial Crime and Fraud Detection
INF_US_028	Broker	to create data sets for analysis of entire agricultural insurance portfolios of clients	can use the information to advise on necessary actions.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_029	Broker	to create data sets for analysis of entire agricultural insurance portfolios of clients	reinsurance cover can be individualised, and terms argued more effectively.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_030	Broker/ Agent	Have profile info about the real insurance needs of their clients (SMEs)	Identified needs with tailored products	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_031	Client	Has the expectation to achieve a “better deal” with the Company about his life insurance policy.	Clients that have more healthy habits get reduced prices.	Personalized Usage-Based Insurance Pilots

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_032	Client	Wants the insurance products to reflect his/her personal situation	He/She don't have to pay for something that does not apply to him/her.	Personalized Usage-Based Insurance Pilots
INF_US_033	Client	Be provided with a tracing report.	Be able to provide explanations or provide corrections if wrong tracing is reported.	Predictive Financial Crime and Fraud Detection
INF_US_034	Client	Invoice digital processing helps clients to contract services / products faster	Clients get to contract services & products from banks in a sustainable and agile way	Smart, Reliable and Accurate Risk Assessment
INF_US_035	Client (SME)	Have best product with the best possible price	Identify insurance needs	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_036	Client (SME)	That the coverages and amount insured are permanently adapt to their activity changes	Monitoring and identifying risk changes	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_037	Client retail	Receive notifications and transaction alerts	Control future transactions and especially possible anomalies associated with double payments, high value charges, geography of transactions, credibility of the merchant, etc.	Personalized Retail and Investment Banking Services

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_038	Company	Engage clients on a large scale through actively managing their wealth through an AI based tool (even for “smaller” portfolios)	Reach clients with portfolios of various sizes in bulk and enable them to construct/rebalance/optimize portfolios (with different parameters) on a regular or on-demand basis.	Personalized Retail and Investment Banking Services
INF_US_039	Financial Advisor	Propose a tailored, on AI basis constructed portfolios to a client in a fully automated fashion.	Client preferences are sure to be met in a quantifiable manner. More advisors time can be used for engagement with the end-client and customer relationship can be improved.	Personalized Retail and Investment Banking Services
INF_US_040	Financial Advisor	Monitor a portfolio’s health on a regular basis using the client’s preset preferences (like performance, risk parameters or other preconditions)	Generating a reason to engage a client on portfolio adjustment and build trust in the fact that their investments are constantly monitored in the right - customer oriented - way.	Personalized Retail and Investment Banking Services
INF_US_041	Financial Crime investigator	I want to receive more alerts about real cases and fewer alerts about innocent behaviour	So that I can focus on the more high risk cases	Predictive Financial Crime and Fraud Detection
INF_US_042	Fraud Analyst	I want a tool which helps me to reduce the number of false positives which I am forced to analyse in-depth in order to understand if they are real fraud attempts or not	So that we my work can by more efficient and focused on real cases, where my experience and skills will make the difference	Predictive Financial Crime and Fraud Detection
INF_US_043	Head of Financial Crime	I want to detect movement of the proceeds of crime into and out of Santander bank	So that criminals can be caught and the bank avoids fines.	Predictive Financial Crime and Fraud Detection

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_044	Head of Financial Crime	I want to reduce the number of suspicious alerts that turn out to be innocent	So that we spend more time investigating real criminal cases (or the highest risk).	Predictive Financial Crime and Fraud Detection
INF_US_045	Head of Fraud Department	I want to detect new and subtle type of frauds and make the analysis process more efficient	So that my financial institution can save money by stopping an higher number of frauds attempts previously undetected and by optimizing analysis process and number of employees assigned to boring tasks that could be automatized	Predictive Financial Crime and Fraud Detection
INF_US_046	Insurance Company	Underwriting process is inaccurate and inefficient	Predictive Underwriting	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_047	Insurance Company	SMEs risks change constantly	Monitoring and identifying risk changes	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_048	Insurance Company	SMEs are constantly evolving, and their insurance coverages get outdated	Identified needs with tailored products	Configurable and Personalized Insurance Products for SMEs and

D2.2-User Stories and Stakeholders' Requirements - II

				Agro-Insurance
INF_US_049	Insurance Company	To receive data with the exact whereabouts of the insured vehicles	Pricing is more accurate combined with traffic conditions and historical data of each area	Personalized Usage-Based Insurance Pilots
INF_US_050	Insurance Company	To receive data with the exact whereabouts of the insured vehicles	Preventing fraud by using different home address for lower tariffs	Personalized Usage-Based Insurance Pilots
INF_US_051	Insurance Company	To verify the VIN number	Detecting if there is inconsistency with vehicle's license	Personalized Usage-Based Insurance Pilots
INF_US_052	Insurance Company	To verify the VIN number	Extracting data from EU's ministries of transportation of the first circulation of the vehicle	Personalized Usage-Based Insurance Pilots
INF_US_053	Insurance Company	To have access to ministries' database of drivers' licenses	Detecting fraud drivers' licenses sent in the insurance company	Personalized Usage-Based Insurance Pilots
INF_US_054	Insurance Company	To receive data from vehicle's CPU of the maintenance of the vehicle	Identifying if the owner of the vehicle follows the manufacturer's maintenance program	Personalized Usage-Based Insurance Pilots
INF_US_055	Insurance Company	To have access to reports from official technical inspection centres	Verifying the good condition of the vehicle and its ability for circulation	Personalized Usage-Based Insurance Pilots
INF_US_056	Insurance Company	To have access to police authorities' database with tickets, penalties and pointing system connected with the	Identifying the driving behaviour of the owner of the vehicle and/or the driver	Personalized Usage-Based Insurance Pilots

D2.2-User Stories and Stakeholders' Requirements - II

		vehicle and/or the driver		
INF_US_057	Insurance Company	Receiving GPS data with the speed of the vehicle combined with speed limits in each area	Identifying drivers' behaviour and their tension to break the law	Personalized Usage-Based Insurance Pilots
INF_US_058	Insurance Company	Receiving the exact live location of the vehicle	Preventing fraud declaration of vehicle's theft	Personalized Usage-Based Insurance Pilots
INF_US_059	Insurance Company	Providing data of who is the actual driver of the vehicle (e.g. fingerprint)	Avoiding fraud by declaring different driver in case of an accident	Personalized Usage-Based Insurance Pilots
INF_US_060	Insurance Company	Receiving live data from vehicle's collision sensors of all the involved vehicles	Detecting fraud declaration of accidents, in different location and/or with different involved vehicles	Personalized Usage-Based Insurance Pilots
INF_US_061	Insurance Company	Assess risks based on the lifestyle of the client.	Pricing of the insurance products more accurately match the actual risk.	Personalized Usage-Based Insurance Pilots
INF_US_062	Insurance Company	Assess risks based on the lifestyle of the client.	Lower-risk clients get reduced prices relative to what the competitors can offer.	Personalized Usage-Based Insurance Pilots
INF_US_063	Insurance Company	Measure the privacy risk of the clients data	The collected data is protected with adequate measures	Personalized Usage-Based Insurance Pilots
INF_US_064	Insured	To provide with my exact mileage in cases when vehicle is rarely used	Being priced less depending on how much the vehicle is used	Personalized Usage-Based Insurance Pilots

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_065	Insured	Receiving the exact live location of the vehicle	Having the ability to locate the vehicle after it is stolen	Personalized Usage-Based Insurance Pilots
INF_US_066	Insured	Providing data of who is the actual driver of the vehicle (e.g. fingerprint)	Establishing tariffs per driver not per vehicle and achieving lower pricing for drivers with better driving behaviour	Personalized Usage-Based Insurance Pilots
INF_US_067	Insured	Providing GPS data of the speed and the exact location of the vehicle	Using all these in case of an accident so as to determine who is responsible for the accident	Personalized Usage-Based Insurance Pilots
INF_US_068	Insured	Achieving a low price in the car insurance without compromising my privacy	Drivers with a "good behaviour" can get a better deal with the insurance company	Personalized Usage-Based Insurance Pilots
INF_US_069	Insured	Providing an approximate location of the vehicle	Drivers' behaviour can be determined while their privacy is still preserved	Personalized Usage-Based Insurance Pilots
INF_US_070	Investment advisors	Provide tailored financial advice by leveraging on the risk and behavioural profiles of the entire bank clientele (not only of the existing investors as was the case until now).	Investment advisors' productivity increases thanks to better recommendations. Relationship with high-value customers strengthens.	Personalized Retail and Investment Banking Services
INF_US_071	Loss Adjuster	the support of EO data analysis that feeds the on-farm loss adjusting	the entire loss adjusting process becomes more time- and cost-effective.	Configurable and Personalized Insurance Products for SMEs and Agro-

				Insurance
INF_US_072	Loss Adjuster	to be able to conduct loss adjusting for specific perils (flood, fire, ...) remotely (EO data analysis)	an objective and highly efficient process can be established.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_073	Notaries	Get a sustainability score that encourage them to ensure sustainable business	Notaries get reduced the amount of paper used in their businesses.	Smart, Reliable and Accurate Risk Assessment
INF_US_074	Retail Client	Receive an AI based constructed portfolio proposal based on individual choices, risk-bearing capacity and preferences.	Ability to manage one's own portfolio and gain control over managing wealth with the help of Artificial Intelligence.	Personalized Retail and Investment Banking Services
INF_US_075	Retail Customers	Experience personalization in their investments by gaining access to a service previously offered only to the highest-value customers by their assigned investment advisors.	Consider NBG as their main financial services provider and gradually turn exclusively to NBG for the entire spectrum of financial advice, products and services.	Personalized Retail and Investment Banking Services
INF_US_076	Sales Agent	identify priority areas based on agricultural risk mapping	resource planning for sales activities can be improved.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_077	Sales Agent	identify priority areas based on agricultural risk mapping	client (farmer) can be informed about the risks (visualized) in a	Configurable and Personalized

			given area.	Insurance Products for SMEs and Agro-Insurance
INF_US_078	Sales Manager	Wants to assess the risk of a product and portfolio in real time in the form of VaR and ES	To be able to demonstrate on-the-go to a potential customer that the risks of the products are constantly evaluated in order to guarantee the highest possible security and control.	Smart, Reliable and Accurate Risk Assessment
INF_US_079	SME Owner	To Auto-Classify transactions in line with the categorization used by the SMEs accounting system/ SMEs requirements with a very high accuracy.	Reconciliation becomes more efficient and monitoring &controlling of expenses can be done more effectively. Human interference with transaction categorization is minimized.	Personalized Retail and Investment Banking Services
INF_US_080	SME Owner	To have the ability to manually override/define transaction category.	The correct transaction category is defined for each transaction.	Personalized Retail and Investment Banking Services
INF_US_081	SME Owner	To have clarity on the currently available working balance, i.e. the balance after taking all current and upcoming expenses as well as income into consideration.	Correct and real time understanding of the business situation.	Personalized Retail and Investment Banking Services
INF_US_082	SME Owner	Working Balance in the near-term future (forecast for up to 6 month).	Any liquidity, KPI challenges can be proactively addressed and focus can be given to safeguard future value creation through informed decisions e.g. on potential investments/bonus payments/etc.	Personalized Retail and Investment Banking Services

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_083	SME Owner	To monitor working capital and alert the SME when the working capital balance moved below a threshold which is defined in line with business type, behaviour and industry best practices and based on Days cash on hand benchmark.	To take corrective measures and arrange/obtain respective lending required to close any potential cash gap.	Personalized Retail and Investment Banking Services
INF_US_084	SME Owner	To predict the VAT amount payable at the quarter-end when due.	The SMEs VAT obligation can be met/paid without causing financial distress to the business operation.	Personalized Retail and Investment Banking Services
INF_US_085	SME Owner	To know the most likely time a specific invoice will be paid.	Allowing for streamlined collections, i.e. follow up at the "right" time as well customer assessment regarding invoice payment (e.g. versus other SME customers and/or SME peer comparison).	Personalized Retail and Investment Banking Services
INF_US_086	SME Owner	To achieve cash flow optimization by paying invoice(s) obligations at the "right" time.	Liquidity shortcomings can be avoided to the max. extend through optimized payment schedule as well as providing actionable insight for obtaining working capital so as to avoid any negative impact on credit score.	Personalized Retail and Investment Banking Services
INF_US_087	SME Owner	To be always up to date with obligation by being alerted in time for upcoming payments and potential cancellation options as well as to identify any multiple subscriptions /recurring payments for the	Increase transparency, stay on top of payments safeguarding that multiple subscriptions are avoided and/or subscription(s) can be handled most appropriately to save money. Bills are paid on time to not only avoid late fees but also	Personalized Retail and Investment Banking Services

D2.2-User Stories and Stakeholders' Requirements - II

		same purpose or alternative options.	potential negative impact on credit score. Incorporates obtained info into the decision-making process before the actual amounts are actually spend.	
INF_US_088	SME Owner	To get informed in case transaction amount(s) and/or transaction type(s) deviates from normal behaviour.	To spend time/effort efficiently on items that need further investigation.	Personalized Retail and Investment Banking Services
INF_US_089	SME Owner	To present basic insights regarding cost structure and compare this to other SMEs in a similar position.	Any potential cost optimization actions can be identify and/or respective advice be obtained if required.	Personalized Retail and Investment Banking Services
INF_US_090	SME Owner	The option to retrieve SME customized daily, weekly, monthly high level summaries on where the business stands (financial health matrix, performance matrix) compared to best practice knowledge/peer performance and the possibility to drill down in order to see what is behind the various KPIs.	To have a clear understanding of the business and ability to focus on business development and growth.	Personalized Retail and Investment Banking Services
INF_US_091	SME Owner	To see at any point in time the business status regarding financial health and performance in relation to best practice/peers.	To have a clear understanding of the business and ability to focus on business development and growth.	Personalized Retail and Investment Banking Services
INF_US_092	SME Owner	Realistic budget benchmark per category as default value with the ability to override. I want budget	Most realistic budget figures are being used.	Personalized Retail and Investment Banking

D2.2-User Stories and Stakeholders' Requirements - II

		recommendations to be based on best practice and peer information.		Services
INF_US_093	SME Owner	Budget(s) to be dynamically adjusted so as to reflect SME business growth/development together with other macro-economic parameter.	To avoid drawing wrong conclusions from static budget numbers that are no longer representative.	Personalized Retail and Investment Banking Services
INF_US_094	SME Owner	To have a cost control mechanism in place that safeguards spending alignment with the budget defined for different periods, categories, merchants.	To support healthy business growth by understanding where the money goes and where spending must be cut back.	Personalized Retail and Investment Banking Services
INF_US_095	SME Owner	To have a single system that serves as a ONE-Stop-Shop e.g. not having to logon to the accounting system in order to retrieve financial/performance data for KPI calculation/assessment.	User convenience and experience is maximized by running the business from one place and it allows for a complete cash flow picture to be shown.	Personalized Retail and Investment Banking Services
INF_US_096	SME Owner	To execute payroll as bulk payments whilst still maintaining full control over individual employee salary payments.	Admin time and human error is reduced.	Personalized Retail and Investment Banking Services
INF_US_097	Software Developer	Wants to create a system that reliably examines the various systems and products for their risk and that can be changed flexibly	So that subsequent regulatory changes on the part of the supervisory authorities can be spontaneously implemented in the risk analysis system and the program does not have to be reprogrammed from the very start.	Smart, Reliable and Accurate Risk Assessment

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_098	Supervisory authority	Implementation of the Platform for AML Supervision that will include semi-automated features and more direct data access.	Supervisory authorities are obliged to comply with EU AML regulatory requirements and implement Risk Based Supervision that corresponds to extensive use of resources in the supervision department.	Predictive Financial Crime and Fraud Detection
INF_US_099	Trader	Wants to assess the risk of a trade in real time using VaR and ES individually and at portfolio level	To know whether the risk of a trade is consistent with the pre-defined rules and policies and can be executed without having to resort to end-of-day data.	Smart, Reliable and Accurate Risk Assessment
INF_US_100	Underwriter	to conduct a precise risk assessment based on real data e.g. EO data, Climate and weather intelligence (not assumptions) before writing a risk	the agricultural portfolio is well balanced and compensates for potential claim payments.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_101	Underwriter	an overview of the agricultural risk landscape in market "Y"	sales activities can be targeted more specifically across the market "Y" with the objective of portfolio diversification.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_102	Underwriter	an overview of agricultural production and weather/climate patterns in market "Y"	areas can be identified where crop productivity and catastrophe probability is high.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance

D2.2-User Stories and Stakeholders' Requirements - II

INF_US_103	Underwriter	to increase the speed (effectiveness) of claim handling procedures	indemnity pay-outs can be transferred to the client more quickly.	Configurable and Personalized Insurance Products for SMEs and Agro-Insurance
INF_US_104	Bank's Data Scientists	I want a higher data quality	So that my analyses will improve a lot.	Predictive Financial Crime and Fraud Detection
INF_US_105	Company	Derive a risk, pricing, predictions on asset tickers based on AI processing of news feeds, in various languages	Portfolio allocation optimization is based on AI predictions of newsfeeds, trend following strategies	Personalized Retail and Investment Banking Services
INF_US_106	Data Governance Officer	Detect the key concepts related to the internal regulatory process; map the tagged concepts against the ABI Lab taxonomies (e.g. data, processes, business applications, etc.)	Standardisation of the classes associated to the documentation analysed	Smart, Reliable and Accurate Risk Assessment
INF_US_107	Enterprise Architect	Understand whether the reference taxonomies and architectural maps (e.g. data, processes, business applications, etc.) are able to comprehensively represent reality within a bank.	Creation of a unified reference glossary and continuous improvement of reference taxonomies and architectural maps	Smart, Reliable and Accurate Risk Assessment
INF_US_108	Researcher	Test the most relevant NLU models, verifying their ability to support the analysis of	Refine NLU models and semantic ontologies, starting from the lessons learned from the	Smart, Reliable and Accurate Risk

	internal regulatory process within a bank.	experimentation initiative	Assessment
--	---	----------------------------	------------

12 Appendix F: Stakeholder Requirements – Complete list

Requirements ID#	Origin	Requirements
INF_REQ_001	INF_US_002	Provide recommendations related to existing products
INF_REQ_002	INF_US_003	Allow analysts to have direct access to gathered relevant up to date data
INF_REQ_003	INF_US_003; INF_US_049; INF_US_053; INF_US_055; INF_US_056; INF_US_057; INF_US_059; INF_US_066	Allow automatic data gathering from internal/external sources
INF_REQ_004	INF_US_004	Enable third parties to send/upload data to the distribution channel tool
INF_REQ_005	INF_US_004	Allow the data received (especially from the FI) to be automatically integrated into the risk assessment tool
INF_REQ_006	INF_US_005	Allow the analyst to do a review of the alerts related to suspicious (/high-risk) behaviour and execute manual decision whether reviewed behaviour is high-risk or not.
INF_REQ_007	INF_US_006	Enable that the risk assessment tool to be updated by different triggers coming from internal and external sources (screening tool, distribution channel)
INF_REQ_008	INF_US_006	Enable the Risk assessment tool to trigger a notification for the reassessment when Identified high-risk behaviour (as part of internal sources)
INF_REQ_009	INF_US_007	Build the software that identifies and automates of frequent or repeated transactions patterns
INF_REQ_010	INF_US_009; INF_US_070	Provide risk profiles of users (e.g. of profiles: behavioural, expense)
INF_REQ_011	INF_US_009; INF_US_010; INF_US_013; INF_US_030;	Use client's profile data for the creation of personalized recommendations

	INF_US_031; INF_US_032; INF_US_048; INF_US_070; INF_US_006; INF_US_011; INF_US_012	
INF_REQ_012	INF_US_014	Provides a mechanism for identifying tables in non-structured documents
INF_REQ_013	INF_US_015	Provides a mechanism for identifying metadata inside the tables
INF_REQ_014	INF_US_016; INF_US_001; INF_US_100; INF_US_047; INF_US_099; INF_US_078	Provides a flexible, secure and real-time risk analysis system;
INF_REQ_015	INF_US_017	Enable the mechanism to offer new digital services by fostering sharing and 'trust' relationships with and between customers
INF_REQ_016	INF_US_018	Users need to provide permissions to different data uses
INF_REQ_017	INF_US_019	Provides a service that shares personal financial data with others, easily and securely.
INF_REQ_018	INF_US_019	Users need to provide permissions to shares personal financial data with others. And also, transaction and documentation data
INF_REQ_019	INF_US_020	Allows integration of added value services like analytics and data enhancement from a trusted organisation
INF_REQ_020	INF_US_021	Provides a service that allows businesses to share identification and account & transaction information safely with customers, partners (including government) and banks
INF_REQ_021	INF_US_022	Allows integration of added value services like analytics and data enhancement from a trusted organisation
INF_REQ_022	INF_US_023	Enable a 360 in-depth understanding of the customers/SME situation
INF_REQ_023	INF_US_023	Define the level of exposing the insights the SME can see
INF_REQ_024	INF_US_024	Check blockchain asset deposits to see if they can be traced to published or company internal fraud related addresses.

INF_REQ_025	INF_US_025	Support of multiple major chains such as Ethereum and Bitcoin.
INF_REQ_026	INF_US_026	Use a scalable parallel system that is able to handle massive number of transactions
INF_REQ_027	INF_US_027	Trace customer address and related linked transactions to see if they originate from blacklisted addresses published by authorities.
INF_REQ_028	INF_US_028	Create an approach for analysis of entire agricultural insurance portfolios of users (clients) via data sets
INF_REQ_029	INF_US_033	Provide tracing report
INF_REQ_030	INF_US_034	Provides a mechanism for establishing relationships between the data to create concepts
INF_REQ_031	INF_US_035	Adjust the price of insurance to the Identified insurance needs. Best relation product (insurance needs) versus price
INF_REQ_032	INF_US_036	Enables the coverages and amount insured are permanently adapt to the activity changes
INF_REQ_033	INF_US_037	Generate notifications and transaction alerts
INF_REQ_034	INF_US_038	Managing users/clients wealth through an AI based tool
INF_REQ_035	INF_US_038	Usage of AI for the creation of tailored portfolios
INF_REQ_036	INF_US_039	Customization of fully automated processes
INF_REQ_037	INF_US_040	Use the preset preferences to monitor a portfolio's health
INF_REQ_038	INF_US_040	Users have to be able to customize his preset preferences
INF_REQ_039	INF_US_043	Creates a crime detection (screening) tool to find suspicious behaviour in the Financial Crime remit
INF_REQ_040	INF_US_043	Enable to detect movement of the proceeds of crime into and out of the bank
INF_REQ_041	INF_US_044; INF_US_041; INF_US_042;	Reduce the number of suspicious alerts that turn out to be innocent (reduce. via tool, the number of false positives)
INF_REQ_042	INF_US_044	Generate notifications and transaction alerts
INF_REQ_043	INF_US_045	Enable to detect the new and subtle type of frauds and make the analysis process more efficient
INF_REQ_044	INF_US_046	Enable high predictive value to improve underwriting of insurance
INF_REQ_045	INF_US_049	Enable the monitoring of the connected vehicles
INF_REQ_046	INF_US_051	Automatic verification of VIN number

INF_REQ_047	INF_US_057	Mapping between speed limits and connected vehicles speed data
INF_REQ_048	INF_US_063	Provide data protection mechanisms
INF_REQ_049	INF_US_071	Support of EO data analysis that feeds the on-farm loss adjusting
INF_REQ_050	INF_US_072	Remotely (EO data analysis) be able to conduct loss adjusting for specific perils (flood, fire, ...)
INF_REQ_051	INF_US_073	Allows a sustainability scoring mechanism
INF_REQ_052	INF_US_074	Use user's preferences to create AI based portfolios
INF_REQ_053	INF_US_075	Allow experience personalization in their investments by gaining access to a service previously offered only to the highest-value customers by their assigned investment advisors
INF_REQ_054	INF_US_076	Enable to identify priority areas based on agricultural risk mapping
INF_REQ_055	INF_US_079	Enable Auto-Classification of transactions in line on SMEs accounting system/ SMEs requirements
INF_REQ_056	INF_US_080	To have the ability to manually override/define transaction category
INF_REQ_057	INF_US_082	Enable near-term future in Working Balance (forecast for up to 6 month)
INF_REQ_058	INF_US_083	Enable to use the working capital balance with the defined threshold to monitor working capital and alert the SME
INF_REQ_059	INF_US_083	Allow defining a threshold which is in line with business type, behaviour and industry best practices and based on Days cash on hand benchmark
INF_REQ_060	INF_US_084	Enable to predict the VAT amount payable at the quarter-end when due
INF_REQ_061	INF_US_085	Know the most likely time a specific invoice will be paid
INF_REQ_062	INF_US_086	Enable the paying invoice(s) obligations at the "right" time to achieve cash flow optimization
INF_REQ_063	INF_US_087	Creation a mechanism to manage the obligation by being alerted in time. For upcoming payments and potential cancellation options as well as to identify any multiple subscriptions /recurring payments for the same purpose or alternative options
INF_REQ_064	INF_US_088	Allow detection when the transaction amount(s) and/or transaction type(s) deviate from normal behaviour
INF_REQ_065	INF_US_089	Enable the basic insights regarding cost structure and compare this to other SMEs in a similar position

INF_REQ_066	INF_US_090	Enable daily, weekly, monthly high level SME customized summaries
INF_REQ_067	INF_US_090	Allow SME summaries on where the business stands (financial health matrix, performance matrix) compared to best practice knowledge/peer performance and the possibility to drill down to see what is behind the various KPIs.
INF_REQ_068	INF_US_091	Enable at any point in time the business status regarding financial health and performance to best practices/peers
INF_REQ_069	INF_US_092	Enable realistic budget benchmark per category as default value with the ability to override
INF_REQ_070	INF_US_092	Budget recommendations to be based on best practice and peer information.
INF_REQ_071	INF_US_093	Dynamically adjust budget(s)
INF_REQ_072	INF_US_097	Provides a system that reliably examines the various systems and products for their risk and that can be changed flexibly
INF_REQ_073	INF_US_098	Comply with EU AML Supervision regulatory requirements (Risk Based Supervision)
INF_REQ_074	INF_US_101	Provide an overview of the agricultural risk landscape per market
INF_REQ_075	INF_US_102	Provide an overview of agricultural production and weather/climate patterns per market
INF_REQ_076	INF_US_103	Provide a procedure for automatic claim processing to increase the speed (effectiveness) of loss adjusting/claim handling procedure
INF_REQ_077	INF_US_031	Enable lifestyle measurements of users
INF_REQ_078	INF_US_032	Enable user reporting of events
INF_REQ_079	INF_US_062	Display collected info for manual reasoning
INF_REQ_080	INF_US_061	Provide reasoning for health risks
INF_REQ_081	INF_US_063	Provide reasoning for fraud detection
INF_REQ_082	INF_US_005	Provide screening tool to identify potential high-risk behaviour and send an alert to the analyst.
INF_REQ_083	INF_US_084	Determine VAT obligation on transaction level based on information available for specific transaction.
INF_REQ_084	INF_US_084	Derive TOTAL VAT obligation based on outstanding VAT obligation and determined VAT obligation since last cust off date
INF_REQ_085	INF_US_084	Compare TOTAL VAT obligation with VAT Saving pot.
INF_REQ_086	INF_US_088	Identify transaction events that are important to the SME client. For instance, Amazon

		refund and match with related transactions.
INF_REQ_087	INF_US_085	Auto Matching partly or fully paid invoices to related transaction.
INF_REQ_088	INF_US_085	Identifying unmatched invoices/transactions and allowing manual matching of partly or fully paid invoices to related transaction.
INF_REQ_089	INF_US_085	Providing matching propositions for invoices/transactions where no exact match could be found.
INF_REQ_090	INF_US_088	Identify potentially avoidable expenses (e.g., high amount of ATM fees) utilizing any available data in relation to other products / peers.
INF_REQ_091	INF_US_090	To allow to collect feedback from SME client in order to rank insights according to their usefulness (e.g., Amazon 5-star rating system) and to determine visualization priority/ location
INF_REQ_092	INF_US_090	To allow to collect information from SME client in order to support other user stories evaluation in case of missing or extra required information through kind of questionnaire.
INF_REQ_093	INF_US_104	Keep KYC data up to date
INF_REQ_094	INF_US_043	Analyse transactions on normal/abnormal behaviour based on customer-group classification
INF_REQ_095	INF_US_044	Generate "FC-Score", i.e., measure of Financial Crime probability for transaction analysed as abnormal
INF_REQ_096	INF_US_014	Provides statistical data analysis and behaviour patterns discovering system
INF_REQ_097	INF_US_073	Automate the implementation of expert knowledge criteria
INF_REQ_098	INF_US_105	Delivers reusable and scalable services, with data government and models versioning
INF_REQ_099	INF_US_106	NLU model able to detect concepts related to the banking domain languages
INF_REQ_100	INF_US_107	Enable the classification of textual items according to reference banking classification taxonomies
INF_REQ_101	INF_US_107	Improve accuracy of reference banking classification taxonomies, according to NLU process result
INF_REQ_102	INF_US_108	Enable the mapping of a logical link between textual items, banking processes and Informational assets

Tailored IoT & BigData Sandboxes and Testbeds for Smart, Autonomous and Personalized Services in the European Finance and Insurance Services Ecosystem

Infinittech