PILOT EXECUTION AND EVALUATION PLANS

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ABBREVIATIONS

ABBREVIATION	DESCRIPTION
WP	Work Package
EU	European Union
Civio	Fundación Ciudadana Civio
ANSA	Agenzia Nazionale Stampa Associata
VRT	De Vlaamse Radio- en Televisieomroeporganisatie
Mx	Project Month (e.g. M12, M20)

EXECUTIVE SUMMARY

The goal of this document is to explain the approach that will be used to pilot the FANDANGO solution. This application is supposed to help their users (= newsrooms) in providing information regarding whether a claim, image, video or article is trustworthy or not. Based on this information, the newsroom is then able to make a decision if the claim/article/video/image is verified or not. This way, the spreading of disinformation can be counteracted.

In order to ensure that the FANDANGO solution is designed to help its users in the best way, the consortium's three media organisations (ANSA, Civio & VRT) have written use cases and provide examples of how they could be applied in their specific domains. Along the entire document, ANSA focuses on the use case concerning European Context, Civio deals with the use cases regarding Immigration and VRT describes the Climate use case.
An overview of all use cases is provided in table 1.

Use case	Description of purpose
1. Verify a claim	This use case describes the process a journalist should be following when verifying whether a claim is trustworthy or rather considered as disinformation.
2. Verify a video	This use case describes the process a journalist should be following when verifying whether a video is trustworthy or rather considered as disinformation.
3. Verify an article	This use case describes the process a journalist should be following when verifying whether an article is trustworthy or rather considered as disinformation.
4. Verify an image	This use case describes the process a journalist should be following when verifying whether an image is trustworthy or rather considered as disinformation.

Table 1: Overview of all use cases

Based on these use cases, the consortium's technical partners are developing a Big Data based solution, where different Big Data analysis modules enable the features provided by FANDANGO.

The effectiveness of this solution will be evaluated in two pilot iterations.

In order to measure the outcomes of the pilots, it is important to define the metrics for evaluation beforehand. The metrics defined for this project are:

- Speed
- Confidence
- Number of verifications
- Availability
- Shareability

These metrics will finally be assessed by a validation panel of 18 journalists that will be recruited from the user partners' news teams and external news organisations.

There will be two pilot iterations during the project: pilot 1 is foreseen in 2019, while pilot 2 will be conducted in 2020. During pilot 1, a small group of journalists from ANSA, Civio & VRT will be testing the first functional iteration of FANDANGO. During pilot 2, the focus will be on a bigger group of users and on a revised version of FANDANGO, after first pilot validation results.

Per pilot, the consortium has chosen to work with a two-phased approach. This gives the possibility to focus on the key points during two iterations to be measured and improve the processes and the software in a more agile structure.

The Pilot validation activities, from technical test to user acceptance studies for both rounds of piloting, will be conducted with a coordinating effort lead by ANSA among VRT, CIVIO and technical partners, of internal and external users and will also involve user panels.

1.   INTRODUCTION

Use cases tell a story about how a user will interact with the FANDANGO services. This narrative description includes information about the user, a history of the situation, and descriptions of the experiences, choices and outcomes of the interactive process. This information assists the structure and interface design for the best possible experience for the site's users.

A set of use cases can be created to describe the majority of user interactions with the application. This set includes examples from each user task profile. Together, the use cases establish the high-level scope of a project by representing the essential functionality that is required by the application.

Each use case follows a targeted persona and solution goal. The use case will describe how a specific persona would accomplish his/her goal using FANDANGO.

1.1.   PURPOSE

This document defines the pilot execution and evaluation plan of the FANDANGO solution. Given that most of the FANDANGO features are related to Big Data analysis techniques that will be used to score the trustworthiness of a news or a single component (e.g. Author, Source, Media,...), we focused this plan on use cases description of FANDANGO' services provided features.

Use cases are used to explore and communicate the likely actions of users when interacting with FANDANGO's services. Development of use cases helps the consortium members to understand the motivations of users and the functions that will compliment their motivations.

1.2.   REFERENCES

This document is based on the following documents:

- D2.3. User requirements

1.3.   NOTATION/STRUCTURE

Our use cases have the following sections:

1. **User profile**: what kind of user are we dealing with? A description of the user will include audience type, demographics, preferences, and any other details that are appropriate to the use case.

2. **Background**: the set-up for the use case. This section contains information about how the user came to use the application, and any pertinent details that influence their interaction.

3. **Objective**: the task that the user will complete in the use case. This section describes the user's intentions.

4. **Pre-conditions:** what needs to exist before starting.

5. **Post-conditions:** what the user should have at the end.

6. **Narrative**: a description of the events that happen. A story about the user's experiences and actions. Included are decisions that the user makes and the consequences.

2.   DEFINITIONS

Throughout the document, the terms 'use case' & 'scenario' will be used according to the following definitions[1]:

- **Use case:** The actions that are required to enable or abandon a goal. A use case has multiple "paths" that can be taken by any user at any one time.

- **Scenario:** An example of how the use case can be applied in each of the domains.

- **Domain**: A field/topic in which a use case is presented.

3.   USE CASES

In this chapter, four use cases (verification of a claim, article, image & video) will be explained by means of three scenarios applied in different domains (immigration, climate & politics). Section 3.1 elaborates on the verification of a claim, section 3.2 focuses on the verification of a video, section 3.3 zooms in on the verification of an article while the final use case - the verification of an image - is explained in section 3.4.

In Table 2, a list of the use cases is provided.

USE CASE	DESCRIPTION OF PURPOSE
1. Verify a claim	This use case describes the process a journalist should be following when verifying whether a claim is trustworthy or rather considered as disinformation.
2. Verify a video	This use case describes the process a journalist should be following when verifying whether a video is trustworthy or rather considered as disinformation.
3. Verify an article	This use case describes the process a journalist should be following when verifying whether an article is trustworthy or rather considered as disinformation.
4. Verify an image	This use case describes the process a journalist should be following when verifying whether an image is trustworthy or rather considered as disinformation.

Table 2: Overview of all use cases

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[1] http://tynerblain.com/blog/2007/04/10/what-are-use-case-scenarios/

3.1.   USE CASE 1: VERIFY A CLAIM

3.1.1.   DOMAIN: IMMIGRATION

Newsroom	Civio
User profile	Journalist
Subject persona	Patricia
Use case	Verify a claim
Domain	Immigration

Background:

Patricia is a data journalist at The Civio Foundation, an independent, non-profit organization based in Spain that monitors public authorities.

Patricia's area of expertise is immigration. She monitors and investigates issues and news reports on the subject, and she writes articles with her conclusions.

She has been given the task to closely monitor claims that are made by politicians and public figures in order to provide a critical but evidence based voice in the heated immigration debate.

Objective:

Patricia needs to verify a claim that a politician has made this morning on national radio. She needs help to back it up with solid research data.

Pre-conditions:

The journalist identified a claim that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the claim (source, content, author, etc.), a list of related, verified claims and useful data sources. This will enable her to take an informed decision on whether the claim is true or should be considered disinformation.

Narrative:

This morning, a politician on the radio claimed that "immigrants are guilty of nearly 80% of the rapes in Spain".

1. Patricia visits the FANDANGO website
2. She enters the claim in the search box
3. She presses the button "Analyse claim"
4. She reads the analysis that FANDANGO returns about this claim, containing similar claims with their own metadata and suggestions about open data sources to consult.

Patricia sees that the claim is wildly exaggerated and she uses FANDANGO's analysis results as part of her article refuting the claim.

Modules used:

FANDANGO uses these modules in this scenario:

- Similar claims module
- Open data dashboard

Sources used:

FANDANGO uses these sources to verify this claim:

- Database with verified claims
- List of public databases on immigration and criminality in Spain

3.1.2. DOMAIN: CLIMATE

Newsroom	VRT
User profile	Journalist
Subject persona	Stijn
Use case	Verify a claim
Domain	Climate

Background:

Stijn is a journalist and climate expert at VRT. He has to provide commentary on each climate subject across all news programs. His colleagues know they can rely on Stijn to know the ins and outs on those matters, so they don't have to.

Stijn's knowledge provides a certain level of trustworthiness for VRT, but it also means Stijn has to have the right answer at the right time.

Objective:

Stijn needs to fact check the numerous claims politicians make about climate change each day. He needs to back up or reject the claims based on scientific evidence.

Pre-conditions:

The journalist identified a claim that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the claim (source, content, author, etc.), a list of related, verified claims and useful data sources. This will enable her to take an informed decision on whether the claim is true or should be considered disinformation.

Narrative:

A politician wrote an opinion piece about *carbon capture and storage systems*. She claims that those systems will soon be more economical and have more impact than other ways of fighting climate change, like planting trees.

1. Stijn visits the FANDANGO website
2. He enters the claim in the search box, and the name of the politician
3. He presses the button "Analyse claim"
4. FANDANGO returns similar claims with their own metadata and suggestions about open data sources to consult
5. FANDANGO also returns relevant data about the publisher, the politician
6. Stijn clicks on the links to the data reports
7. He finds the data he needs to give nuance to the claim

Stijn has gathered enough information through FANDANGO's analysis to conclude the claim needs to be nuanced quite a bit. He passes this information to his colleagues so their reporting is accurate.

Modules used:

FANDANGO uses these modules in this scenario:

- Similar claims module
- Open data dashboard

Sources used:

FANDANGO uses these sources to verify this claim:

- Database with verified claims
- List of public databases on climate change in Belgium

3.1.3.   DOMAIN: EUROPEAN CONTEXT

Newsroom	ANSA
User profile	Journalist
Subject persona	Enrico
Use case	Verify a claim
Domain	European Context

Background:

Enrico is the Chief journalist at ANSA Brussels Desk and an expert of European Political Affairs.

Objective:

Enrico needs to verify a claim on Facebook reposted 16,000 times about a statement of French president Emmanuel Macron on Brexit that could change the scope of the article he is writing on Brexit.

Pre-conditions:

The journalist identified a claim that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the claim (source, content, author, etc.), a list of related, verified claims and useful data sources. This will enable her to take an informed decision on whether the claim is true or should be considered disinformation.

Narrative:

Figure 1: Claim to be verified (domain: European Context)

Figure 1: Claim to be verified (use case: European Context)

According to a Facebook post, Emmanuel Macron has said the UK will only be allowed to stay in the EU if they fully adopt all EU rules and regulations including adopting the Euro within six months of stopping Brexit.

1. Enrico visits the FANDANGO website
2. He enters the claim in the search box
3. He presses the button "Analyse claim"
4. FANDANGO returns similar claims with their own metadata and suggestions about open data sources to consult

Enrico uses this result as part of his article.

Modules used:

FANDANGO uses these modules in this scenario:
- Similar claims module
- Open data dashboard

Sources used:

FANDANGO uses these sources to verify this claim:
- Database with verified claims

3.2.   USE CASE 2: VERIFY A VIDEO

3.2.1.   DOMAIN: IMMIGRATION

Newsroom	Civio
User profile	Video journalist
Subject persona	Miguel
Use case	Verify a video
Domain	Immigration

Background:

Miguel is a video journalist at The Civio Foundation, an independent, non-profit organization based in Spain that monitors public authorities.

He monitors social media for new information that goes viral and that is posted by accounts from various organisations or personal accounts.

Objective:

He has to investigate a sudden rise of a couple of videos that claim to be a riot from a group of immigrants in southern Spain.

Miguel needs to ensure that the videos are not manipulated and that they actually took place in a village in southern Spain, or that they are false and have been used for social and political influence against immigrants.

Pre-conditions:

The journalist identified a video that needs to be verified.

Post-conditions:

The journalist has an indication of the trustworthiness of the video, enabling him to take an informed decision whether the video is verified or should be considered disinformation.

Narrative:

Last night, Miguel discovered two new suspicious videos on YouTube.

1. Miguel visits the FANDANGO video verification service
5. He enters the URL of the YouTube video in the search box
6. He presses the button "Analyse video"
7. He reads the analysis summary and information that FANDANGO returned

Miguel decides not to use this video in his article because it has been misplaced.

Modules used:

FANDANGO uses these modules in this scenario:

- Video analysis

Sources used:

FANDANGO uses these sources to verify this claim:

- Database with verified videos

3.2.2.   DOMAIN: CLIMATE

Newsroom	VRT
User profile	Video journalist
Subject persona	Nathalie
Use case	Verify a video
Domain	Climate

Background:

Nathalie is a video journalist at VRT, one of Belgium's public broadcasters. She works at the editorial team of *Het Journaal*, the daily, prime time news program on tv.

She keeps track of the new videos that are sent in by correspondents, but also trending videos that are published on social media. This way, she hopes to notice new videos as soon as possible, since time is of the essence. It's hard to know if they are real, though.

Objective:

Nathalie has to find new social, trending videos and check their trustworthiness fast, in order to use them on tv, in the most watched news program in prime time.

Pre-conditions:

The journalist identified a video that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the video and an indication of the trustworthiness of the video, enabling her to take an informed decision whether the video is verified or should be considered disinformation.

Narrative:

Figure 2: Video to be verified (domain: Climate)

Last night, Nathalie saw several Twitter accounts posting a sensational video of massive icebergs floating by the coast of Greenland. All accounts reported that (allegedly) these icebergs were a few of the many that had broken off the Arctic ice cap in the past week and that they were a major threat to the local marine traffic.

1. Nathalie visits the FANDANGO video verification service
2. She enters the URL of a Twitter post containing the video in the search box
3. She presses the button "Analyse video"
4. She reads the analysis summary and information that FANDANGO returned

Nathalie decides not to use this video in the tv program because it is from 2017, probably mixed with other footage and greatly sensationalised.

Modules used:

FANDANGO uses these modules in this scenario:

1. Video analysis
2. Authors

Sources used:

FANDANGO uses these sources to verify this video:

1. Database with verified videos

3.2.3.   DOMAIN: EUROPEAN CONTEXT

Newsroom	ANSA
User profile	Journalist
Subject persona	Giancarlo
Use case	Verify a video
Domain	European context

Background:

Giancarlo is the Chief journalist at ANSA Video Desk and an expert of Video and Photo contents.

Objective:

Giancarlo needs to verify a video published on many Italian newspapers to depict the president of the European Union Jean-Claude Juncker as an absent-minded person.

Pre-conditions:

The journalist identified a video that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the video and an indication of the trustworthiness of the video, enabling him to take an informed decision whether the video is verified or should be considered disinformation.
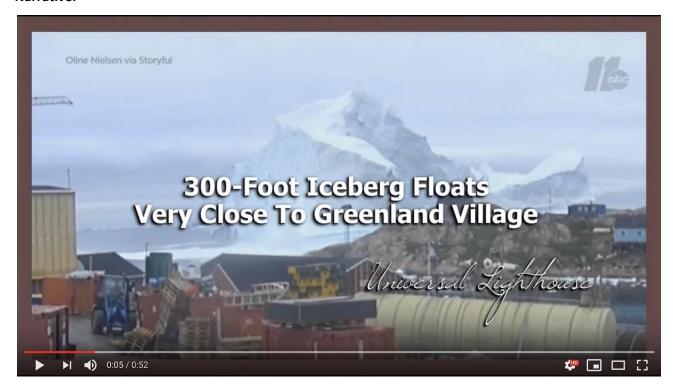
Narrative:

Figure 3: Video to be verified (domain: European Context)

According to a video published on Twitter and cited by Repubblica, Juncker was wearing two shoes of different color during a press conference in Brussels.

1. Giancarlo visits the FANDANGO website
2. He enters the URL of article with the video in the search box
3. He presses the button "Verify video"
4. FANDANGO, after examining the video reports that it is inaccurate

Giancarlo uses this result to avoid a mistake, also looking for and finding an official video of the same press conference that correctly shows Juncker with both shoes of the same color.

Modules used:

FANDANGO uses these modules in this scenario:

- Claims verification
- Text similarity
- FANDANGO Video Tool

Sources used:

FANDANGO uses these sources to verify this video:

- Database with verified claims
- FANDANGO Video database

3.3. USE CASE 3: VERIFY AN ARTICLE

3.3.1. DOMAIN: IMMIGRATION

Newsroom	Civio
User profile	Video journalist
Subject persona	Angela
Use case	Verify an article
Domain	Immigration

Background:

Angela is a data journalist at The Civio Foundation, an independent, non-profit organization based in Spain that monitors public authorities.

She investigates issues related to the public health system, and she writes articles with her conclusions.

She has been given the task to closely monitor the status of the health public system by analysing the monthly expenditure and the waiting list for surgeries and medical interventions.

Objective:

Angela needs to verify an article claiming that immigrants are congesting the system and that they use the sanitary facilities more than people born in Spain.

Pre-conditions:

The journalist identified an article that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the article and an indication of the trustworthiness of the article, enabling her to take an informed decision whether the article is verified or should be considered disinformation.

Narrative:

Angela checked an article and want to use it for its investigation. The article claims that "immigrants use more the health public system that Spanish people do"

1. Angela visits the FANDANGO website
2. She enters the URL of the article in the search box
3. She presses the button "Verify article"
4. She reads the results that FANDANGO returns about this article

She uses the results as part of her investigation refuting the article.

Modules used:

FANDANGO uses these modules in this scenario:

- Open data dashboard
- Article verification
- Text similarity
- Authors

Sources used:

FANDANGO uses these sources to verify this article:

- Database with verified claims and articles
- Scoring of the authors regarding their trustworthiness based on graph analytics
- List of public databases on immigration and health in Spain

3.3.2. DOMAIN: CLIMATE

Newsroom	VRT
User profile	Journalist
Subject persona	Annelies
Use case	Verify an article
Domain	Climate

Background:

Annelies is a journalist at VRT, one of Belgium's public broadcasters.

She specialises in climate issues and provides information to her colleagues that create radio, tv and online content. She doesn't host any of the shows, but she does the research and she is sometimes asked to provide scientific background information.

Objective:

Annelies has to verify articles about climate change from often dubious "news" websites. That way the public broadcaster can add neutral, factual information to the debate.

Pre-conditions:

The journalist identified an article that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the article and an indication of the trustworthiness of the article, enabling her to take an informed decision whether the article is verified or should be considered disinformation.

Narrative:

A couple of websites published articles with recent conclusions from a certain think tank. These conclusions contradict elements of previously released climate reports.

1. Annelies visits the FANDANGO article verification service.
2. She enters the URL of one of the articles.
3. She presses the button "Verify article".
4. She reads the verification analysis that FANDANGO returned.
5. She clicks on the links to related data that FANDANGO provided.

Annelies decides to inform her colleagues not to use this report since it contains data that has been taken out of context.

Modules used:

FANDANGO uses these modules in this scenario:

- Open data dashboard
- Article verification
- Text similarity
- Authors

Sources used:

FANDANGO uses these sources to verify this article:

- Database with verified claims
- List of public databases on climate change in Belgium

3.3.3.   DOMAIN: EUROPEAN CONTEXT

Newsroom	ANSA
User profile	Journalist
Subject persona	Corrado
Use case	Verify an article
Domain	European Context

Background:

Corrado is the Chief journalist of ANSA Economic Desk in Rome and an expert of Economic and Financial Affairs.

Objective:

Corrado needs to verify an article published by several Italian newspapers of a certain political faction on the European Budget.

Pre-conditions:

The journalist identified an article that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the article and an indication of the trustworthiness of the article, enabling him to take an informed decision whether the article is verified or should be considered disinformation.

Narrative:

According to the article, first published online on a single newspaper's website, "The European Union costs too much and the contribution paid by the member states to the EU budget mainly pay for the European bureaucracy".

1. Corrado visits the FANDANGO website
2. He enters the URL of the article in the search box
3. He presses the button "Verify Article"
4. FANDANGO reports that this article has been debunked directly by the Italian EU Representative in Rome and also gives access to the EU datasets on EU Budget Contributions and expenditures

From those results Corrado is able to find out that 94% of the EU Budget is directly reinvested on the territories and only 6% is used to pay for the European Apparatus. He also finds out several examples of Italian projects funded by EU in Italy.

Modules used:

FANDANGO uses these modules in this scenario:

- Claims verification
- Text similarity
- Dataset research

Sources used:

FANDANGO uses these sources to verify this article:

- Database with verified claims
- EU datasets on EU Budgets and Expenditures ingested from EU Open Data

3.4.   USE CASE 4: VERIFY AN IMAGE

3.4.1.   DOMAIN: IMMIGRATION

Newsroom	Civio
User profile	Video journalist
Subject persona	Eva
Use case	Verify an image
Domain	Immigration

Background:

Eva is a journalist at The Civio Foundation, an independent, non-profit organization based in Spain that monitors public authorities.

Eva's area of expertise is digital design and new narratives. She is in charge of choosing multimedia assets for the investigations published on the webpage.

She has been given the task to find images for an investigation about the resettlement of refugees in Europe.

Objective:

Eva needs to verify a couple of images for the investigation. Some media are claiming that one of those images represents several women that have been beaten by refugees in Europe.

Pre-conditions:

The journalist identified an image that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the image and an indication of the trustworthiness of the image, enabling her to take an informed decision whether the image is verified or should be considered disinformation.

Narrative:

One image shows several women with their faces beaten that is claiming to be women mistreated by refugees in Europe

1. Eva visits the FANDANGO website
2. She enters the image in the search box
3. She presses the button "Verify image"

4.   She reads the results that FANDANGO returns about this image

Eva uses the results as part of her article refuting the image.

Modules used:

FANDANGO uses these modules in this scenario:

- Image Analysis

Sources used:

FANDANGO uses these sources to verify this image:

- Database with verified images

3.4.2.   DOMAIN: CLIMATE

Newsroom	VRT
User profile	Journalist
Subject persona	Brecht
Use case	Verify an image
Domain	Climate

Background:

Brecht is an online journalist at VRT. He's an expert on digital media and he scouts the internet non-stop looking for news. Being a digital native, he is deeply embedded in social media and know it's intricacies, slang and customs very well.

Objective:

When Brecht finds an image floating around on social media, he has to verify it before he can suggest it to his colleagues as a new, possibly interesting news story.

Pre-conditions:

The journalist identified an image that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the image and an indication of the trustworthiness of the image, enabling him to take an informed decision whether the image is verified or should be considered disinformation.

Narrative:

Figure 4: Image to be verified (domain: Climate)

On Reddit, Brecht found a trending post with an image that actor James Woods tweeted about the California wildfires in 2018.

1. Brecht visits the FANDANGO image verification service
2. He uploads the image
3. He presses the button "Verify image"
4. He reads the verification analysis that FANDANGO returned: the image is from 2007 and has been edited for dramatic effect

Brecht discards the image because they can't use it in any news reports.

Modules used:

FANDANGO uses these modules in this scenario:

- Image verification
- Authors

Sources used:

FANDANGO uses these sources to verify this image:

- Database with verified images

3.4.3. DOMAIN: EUROPEAN CONTEXT

Newsroom	ANSA
User profile	Journalist
Subject persona	Alessio
Use case	Verify an image
Domain	European Context

Background:

Alessio is a journalist at ANSA Images Desk in Roma and an expert of photojournalism.

Objective:

Alessio needs to verify a photo of a credit card with the EU and UNHCR logos.

Pre-conditions:

The journalist identified an image that needs to be verified.

Post-conditions:

The journalist has an overview of the available information linked to the source, content, author, etc. of the image and an indication of the trustworthiness of the image, enabling him to take an informed decision whether the image is verified or should be considered disinformation.

Narrative:

Figure 5: Image to be verified (domain: European Context)

According to websites including Voice of Europe and Slovenia's Nova 24, this card is distributed to undocumented migrants to finance their travels across Europe.

1. Alessio visits the FANDANGO website
2. He enters the image URL in the search box
3. He presses the button "Verify image"
4. FANDANGO analyses the photo finding it doctored and also finds that it has been verified and debunked by France 24 Fact Checkers

Alessio decides not to use this photo for ANSA Images Service.

Modules used:

FANDANGO uses these modules in this scenario:

● Claims verification
● FANDANGO Photo Tool

Sources used:

FANDANGO uses these sources to verify this image:

● Database with verified claims
● Database of photo fakes

4. METRICS

To measure FANDANGO's added value compared to the current situation, we will define the following metrics. We will use them to capture and compare FANDANGO's impact in each pilot phase.

As described in *Chapter 5: Timing*, the user partners VRT, ANSA and Civio will first capture these metrics during the first pilot phase, in which journalists of each organisation will be observed and interviewed during their daily activities. This is the as-is situation.

In the second pilot phase the user partners will capture these metrics again, when the journalists use the FANDANGO solution.

Afterwards, these metrics will be compared, analysed and used as basis for a structured pilot report.

4.1. SPEED

How much faster will a user be able to perform their news verification tasks using FANDANGO versus the *as-is* situation?

Examples from the use cases and domains:

● How much faster will a FANDANGO user find the right data to verify a politician's claim?

● In which way does FANDANGO speed up the tedious process of verifying a video shared on social media?

● How much time, compared to before, does it take using FANDANGO to find the right data related to an article?

4.2. CONFIDENCE

Journalists trust their own judgement and that of their colleagues. That is why they have high confidence in the results of their own work. This is the advantage of a manual verification process, but the disadvantage is that it's slow. FANDANGO will be very suited to address the speed parameter, but it has to guarantee a certain level of confidence in the results. To ensure we don't compromise one over the other, we will keep track of the level of confidence FANDANGO users have in each of the pilot phases.

Examples from the use cases and domains:

- How confident is a FANDANGO user about the suggested open data sources related to the claim or article they entered?

- Is a user more or less confident about the video and image analysis done by FANDANGO, compared to their manual verification process?

4.3. NUMBER OF VERIFICATIONS

We want to keep track of the average number of verifications that happen in any given newsroom during the pilots planned in the project.

Does FANDANGO increase that number? Does it manifest as sessions per user, or as an increased amount of users? In essence: is more news being verified than before?

Examples from the use cases and domains:

- What is the average amount of videos analysed by FANDANGO in VRT's newsroom during the first pilot phase and the second? How do they compare?

- How many articles will the Civio journalists verify with FANDANGO?

- How many claims and photos will the ANSA journalists verify with FANDANGO?

4.4. AVAILABILITY

Does the sheer existence and 24/7 availability of an online news verification system like FANDANGO have any impact on the users? Manually checking a certain piece of information often requires finding human sources, people close to the subject that can verify or negate the information, calling government officials, sending emails to statistics bureaus and other time consuming actions. When depending on other people for information, it often means being constricted by office hours, fighting for a spot in their work schedule, etc.

What impact does FANDANGO's availability have on the verification work of journalists?

4.5. SHAREABILITY

Does FANDANGO impact the shared knowledge in the newsroom? Do the journalists share their analysed results with colleagues? This is something we will keep track of, because it will help the proliferation of good news verification practices, knowledge about and traffic to the FANDANGO services.

4.6.   PILOT KPIs

Each of the sevices that will be tested in the pilots will be evaluated based on their relevant KPIs. The aim of the selected metrics will be to provide a clear understanding of the strengths and weaknesses of each service in order to guide the end-user (i.e. journalists) in how they will be using them.

Specific KPIs to be measured during the pilots to measure the different areas of impact.

4.6.1.   KPIs FOR USE CASE "VERIFY A CLAIM"

AREA OF IMPACT	KPI	DESCRIPTION
Speed	Time to first impression	Time, in minutes, until the [user] has established a first impression about the possible accuracy of the claim.
Speed	Time to conclusion	Time, in minutes, until the [user] has concluded the investigation with an acceptable outcome.
Confidence	Confidence after first impression	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after achieving a first impression.
Confidence	Confidence after conclusion	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after reaching a conclusion for the claim verification.
Number of verifications	Number of claims verified	Total number of claims verified per day, in a given newsroom.
Number of verifications	Number of claims verified per user	Number of claims verified per newsroom user, per day.
Number of verifications	Number of tools	Number of different tools used to verify a claim.
Number of Verifications	Number of criterias checked	Number of different criteria evaluated to verify a claim, e.g. credibility of author, similar claims, validation of open data about the subject.
Availability	Waiting time	Time, in minutes, that the user has to wait on the response of other people or applications during the verification process.

Shareability	Convenience of sharing results	Convenience of making the results of a claim verification available to other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception after reaching a conclusion for the claim verification.
Shareability	Convenience of accessing shared results	Convenience of accessing the results of a verification already done by other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception when checking a claim that's already verified.

Table 3: KPIs to be measured during the pilot for use case "Verify a claim"

4.6.2.   KPIS FOR USE CASE "VERIFY A VIDEO"

AREA OF IMPACT	KPI	DESCRIPTION
Speed	Time to first impression	Time, in minutes, until the [user] has established a first impression about the possible accuracy of the video.
Speed	Time to conclusion	Time, in minutes, until the [user] has concluded the investigation with an acceptable outcome.
Confidence	Confidence after first impression	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after achieving a first impression.
Confidence	Confidence after conclusion	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after reaching a conclusion for the video verification.
Number of verifications	Number of videos verified	Total number of videos verified per day, in a given newsroom.
Number of verifications	Number of videos verified per user	Number of videos verified per newsroom user, per day.
Number of verifications	Number of tools	Number of different tools used to verify a video.

Number of verifications	Number of criterias checked	Number of different criteria evaluated to verify a video, e.g. credibility of author, timestamp.
Availability	Waiting time	Time, in minutes, that the user has to wait on the response of other people or applications during the verification process.
Shareability	Convenience of sharing results	Convenience of making the results of a video verification available to other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception after reaching a conclusion for the video verification.
Shareability	Convenience of accessing shared results	Convenience of accessing the results of a verification already done by other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception when checking a video that's already verified.

Table 4: KPIs to be measured during the pilot for use case "Verify a video"

4.6.3.   KPIs FOR USE CASE "VERIFY AN ARTICLE"

AREA OF IMPACT	KPI	DESCRIPTION
Speed	Time to first impression	Time, in minutes, until the [user] has established a first impression about the possible accuracy of the overall news article and its contents.
Speed	Time to conclusion	Time, in minutes, until the [user] has concluded the investigation with an acceptable outcome.
Confidence	Confidence after first impression	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after achieving a first impression.
Confidence	Confidence after conclusion	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after reaching a conclusion for the article verification.

Number of verifications	Number of articles verified	Total number of articles verified per day, in a given newsroom.
Number of verifications	Number of articles verified per user	Number of articles verified per newsroom user, per day.
Number of verifications	Number of tools	Number of different tools used to verify an article.
Number of verifications	Number of criterias checked	Number of different criteria evaluated to verify an article, e.g. credibility of author, similar publications, validation of claims, validation of open data about the subject.
Availability	Waiting time	Time, in minutes, that the user has to wait on the response of other people or applications during the verification process.
Shareability	Easy to share results	Convenience of making the results of an article verification available to other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception after reaching a conclusion for the article verification.
Shareability	Easy to access results	Convenience of accessing the results of a verification already done by other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy ", based on the user perception when checking an article that's already verified.

Table 5: KPIs to be measured during the pilot for use case "Verify an article"

4.6.4.   KPIs FOR USE CASE "VERIFY AN IMAGE"

AREA OF IMPACT	KPI	DESCRIPTION
Speed	Time to first impression	Time, in minutes, until the [user] has established a first impression about the possible accuracy of the image.
Speed	Time to conclusion	Time, in minutes, until the [user] has concluded the investigation with an acceptable outcome.
Confidence	Confidence after first impression	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute

		confident of the outcome", based on the user perception after achieving a first impression.
Confidence	Confidence after conclusion	Rate, measured from 1 to 10, where 1 means "Not confident in the outcome" and 10 means "Absolute confident of the outcome", based on the user perception after reaching a conclusion for the image verification.
Number of verifications	Number of images verified	Total number of images verified per day, in a given newsroom.
Number of verifications	Number of images verified per user	Number of images verified per newsroom user, per day.
Number of verifications	Number of tools	Number of different tools used to verify an image.
Number of verifications	Number of criterias checked	Number of different criteria evaluated to verify an image, e.g. credibility of author, timestamp.
Availability	Waiting time	Time, in minutes, that the user has to wait on the response of other people or applications during the verification process.
Shareability	Convenience of sharing results	Convenience of making the results of an image verification available to other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception after reaching a conclusion for the image verification.
Shareability	Convenience of accessing shared results	Convenience of accessing the results of a verification already done by other users, measured in a scale from 1 to 10, where 1 means "Very difficult" and 10 means "Very easy", based on the user perception when checking an image that's already verified.

Table 6: KPIs to be measured during the pilot for use case "Verify an image"

4.6.5.   NON-FUNCTIONAL KPIs

FANDANGO's pilots focus on establishing measurable results that can evaluate the overall results of the project and assess the impact of the technology. Therefore, non-functional KPIs are an essential part to define quantitative and qualitative results provided by the platform that do not directly impact the functionality, but is essential to ensure applicability and scalability of the solution in a real world scenario.

These KPIs will be first measured during the Pilot 1 - Phase 2, which will document the results a first functional version of FANDANGO platform. These metrics will be established based on the technical components driving the functionality hereby described and reported in the deliverable D6.2.

5.   VALIDATION PANEL

We will assemble a validation panel of journalists that will be recruited from the user partners' news teams and external news organisations. To ensure test results are relevant, we aim for 18 participants, distributed as such:

- 5 journalists or news room team members from VRT

- 5 from ANSA

- 5 from Civio

- 3 external journalists (one for each language: Spanish, Italian & Dutch)

The panel will validate customer satisfaction and user acceptance by answering common research questions. Answers will be captured on a Likert scale (*Strongly disagree - Disagree - Neutral - Agree - Strongly agree*).

- FANDANGO assists me in assessing possible fake news.
- FANDANGO speeds up the process of assessing possible fake news.
- I find FANDANGO's interface easy to use.
- I will recommend FANDANGO to my colleagues.
- I want to use FANDANGO in the future.
- I have confidence in FANDANGO's results.
- …

The panel, at the end, will have to provide a verdict, stating whether the FANDANGO solution meets the objectives regarding functionality ('yes' or 'no').

6.   TIMING

There will be two pilot iterations during the project: pilot 1 is foreseen in 2019, while pilot 2 will be conducted in 2020. During pilot 1, a small group of journalists from ANSA, Civio & VRT will be testing the first functional iteration of FANDANGO. During pilot 2, the focus will be on a bigger group of users and on a revised version of FANDANGO, after first pilot validation results.

Per pilot, the consortium has chosen to work with a two-phased approach. This gives the possibility to focus on the key points during two iterations to be measured and improve the processes and the software in a more agile structure.

Pilot 1 - Phase 1 will be the stage in which the metrics are collected without the use of the FANDANGO services, to establish a comparison benchmark with the current process. These results will be used for the evaluation of Phase 2.

Pilot 1 - Phase 2 will be the evaluation stage for the FANDANGO application. During this phase, the users will be working on FANDANGO and the same metrics will be collected for comparison. The benchmark

results from phase 1 will then be compared to the results of the FANDANGO services, enabling the consortium to evaluate whether the pre-defined metrics are improved, and possible gaps that need to be addressed.

Pilot 1 - First phase

- M12-M15 define the use cases for the pilot
- M15-M18 manual analysis of content reliability with the following purposes:
  - Technical partners will provide a template for data annotation – M15
  - Siren and the user partners VRT, ANSA and Civio will establish metrics to be collected about the process – M16
  - The user partners will collect metrics about the process of identifying content reliability (= pilot 1) – M16-M17
  - The user partners will provide quantifiable results of the manual process and complementary annotated data produced as outcome - M18

Pilot 1 - Second phase

- M18 delivery of FANDANGO 0.4 [technical partners]
- M19-M24 analysis of content reliability using FANDANGO 0.4:
  - The user partners will collect metrics about the process of identifying content reliability (= pilot 2) – M19-21
  - The user partners will provide quantifiable results of the manual process and annotated data produced as outcome – M22
  - Siren will consolidate the pilot results for the final report – M23
  - Engineering will revise the pilot results – M24

Pilot 2 - First and second phase

Both phases of Pilot 2 should be similar in content to the second phase of Pilot 1, targeting the use of the FANDANGO services and benchmarking its improvements over the different areas of impact defined in this document.

However, Pilot 2 will be conducted using more recent versions of FANDANGO, improved based on user feedback and results collected during the first iteration. The second phase of Pilot 2 is where the final version of the application should be tested by a wider audience, and project results benchmarks measured. This document will be updated accordingly towards the end of 2019.

Pilot Validation

The Pilot validation activities, from technical test to user acceptance studies for both rounds of piloting, will be conducted with a coordinating effort lead by ANSA among VRT, CIVIO and technical partners, of internal and external users and will also involve user panels created as part of task 6.1. Validation subtasks include the evaluation of fake news classification output, scalability, operability/maintainability and performance as well as user acceptance testing of the end solution, according to the metrics established during the two Pilot iterations. Details will be provided with the next deliverables.

CONCLUSION & RECOMMENDATIONS

As a conclusion to this document, one can state that the basis for the further technical developments of the modules has been set by means of the use cases described above. These use cases give an overview of what should be focussed on and what the output of the FANDANGO services should be with regards to fact checking of images, claims, articles & videos.

During the testing phases, it will be necessary to closely follow up whether the services are user friendly and if the output is the desired result by the user. Therefore, regular adjustments and validation during the pilots will be required.

Additionally, the consortium believes that by defining the metrics for the evaluation, the timing and the approach presented in this document, one will be able to measure the added value of the FANDANGO services in the most efficient way.