

# **NEEDS ASSESSMENT AND STATE-OF-ART ANALYSIS**

POP - D2.1

**Croatia · Italy · Germany · Spain**



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## Project Information

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## Document Information

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## Executive summary

*Deliverable D2.1 presents a comprehensive needs assessment and state-of-the-art analysis conducted within the framework of the POP project (Promoting Opportunities to Propel European Media Literacy Education Among Rural Communities and Older Adults). The report provides a cross-border examination of disinformation trends and media literacy capacities across the four target countries: Spain, Germany, Italy, and Croatia, with a specific focus on rural communities and older adults (50+).*

*The analysis combines quantitative and qualitative evidence, including survey data collected from older adults and rural populations, to identify key media literacy gaps, perceived vulnerabilities, and preferred formats for educational and awareness-raising interventions. Findings highlight common challenges across contexts, particularly related to information verification practices, digital platform use, and unequal access to tailored media literacy resources in rural areas.*

*In addition, the deliverable maps and critically assesses existing media literacy education initiatives at both national and European levels. This state-of-the-art review identifies effective practices, structural limitations, and gaps in current approaches, particularly regarding accessibility, inclusivity, and adaptation to older and rural audiences.*

*Overall, D2.1 establishes the empirical and conceptual foundation for the POP approach by integrating evidence on user needs with an assessment of existing interventions. The results directly inform the design of subsequent project outputs, ensuring that the POP methodology and toolkit are evidence-based, context-sensitive, and responsive to the identified media literacy challenges across the participating countries.*



# 1. Introduction

Misinformation and disinformation rank second among the most severe short-term global risks in the World Economic Forum's Global Risks Report 2026, consolidating their position as a leading global threat for the third consecutive year (WEF, [2026](#)). While this is a universal challenge affecting all age groups, older adults, and particularly those in rural areas, remain largely overlooked by media literacy initiatives designed to address it (Hermans, [2022](#)). Research has shown this group to be among the most vulnerable, and that the risk is even greater for those living in rural areas. The collapse of local media has left rural communities increasingly dependent on social media and messaging apps as their primary source of news (Verza et al., [2024](#)), spaces where the absence of professional editorial oversight allows disinformation to proliferate, and where above-basic digital skills, found in only 20% of rural residents across Europe compared to 33% in cities (Eurostat, [2023](#)), make populations more exposed to informational risk. Yet media literacy education has remained largely an urban endeavour: those living in rural areas are consistently less reached than urban populations (Edwards and Goodman, [2024](#)), and non-engagement with media literacy initiatives is most likely among older people in rural areas (Yeoman and Yates, [2023](#)).

Consequently, the need for evidence-based, accessible and locally delivered media literacy education for these communities is clear. Against this backdrop, and building on Maldita.es's Bulobus model of rural media literacy outreach in Spain, the POP project (CREA-101246227) sets out to build the resilience of adults aged 50+ in rural areas of Croatia, Germany, Italy and Spain through an innovative, gamified and locally deployable media literacy toolkit.

This report presents the findings of Task 2.1 of Work Package 2, constituting Deliverable 2.1, coordinated by Maldita.es with the participation of all consortium partners: Correctiv (Germany), The Fact-Checking Factory (Italy), Faktograf (Croatia), HelpAge (Spain) and Prodigioso Volcán (Spain). We apply a cross-border comparative methodology to three parallel research streams: **(1) a disinformation narrative analysis** identifying the prominent mis- and disinformation narratives possibly affecting older adults and rural communities in the four project countries across five thematic areas (health and science, climate, conspiracy theories, artificial intelligence, and online scams); **(2) a survey with older adults and rural communities**, gathering direct evidence on information habits, disinformation exposure and learning preferences of the target audience; and **(3) a state-of-the-art media literacy review** mapping existing educational provision and gaps at national and European levels.

The disinformation narrative analysis draws on IFCN-certified databases and does not claim to be an exhaustive inventory of all disinformation circulating in each country, but rather a targeted scan of the narratives most likely to affect the target audience. The state-of-the-art review captures the provisions available in early 2026 and should be read as an analytical snapshot rather than a definitive inventory. Data from the four countries are presented comparatively, and nationally specific findings are discussed in more detail in the country-specific sections of each analytical part.

■ **Renewables, climate and immigration are the most believed narratives among older adults.** Scepticism prevails (over 80% disbelief), yet three narratives show higher credibility: “renewable energy invading natural areas” (12.6%), “climate change as a natural cycle” (9.1%), and “immigrants receiving more aid” (8.3%). AI disinformation is the primary concern across all countries (>50%); immigration and climate change are the dominant concerns in Germany (~65% each), while health and online scams lead in Croatia.

■ **Immigration and AI lead disinformation exposure.** Only 14 out of 1,001 respondents reported no exposure to any disinformation topic in the past week. Immigration (81.5%) and AI-generated content (76.2%) were the most

■ **Older adults are highly exposed, yet underserved.** Only 29.2% (aged 55+) have received formal media literacy training, 55.1% rely on informal learning, and 15.7% have never received any training at all; a figure that reaches zero among the oldest cohort surveyed (85-94 years). The gap is more acute in rural communities: 30% report no training of any kind, and only 11.7% have ever attended a formal course or workshop.

■ **Media literacy training does not equal confidence.** Spain records the highest formal training rate among the 55+ target group (17%), yet 51.1% of Spanish respondents in this group still feel not very or not at all capable of spotting



encountered; all remaining topics (economy, health, climate change and conspiracy theories) ranged between 60% and 70%.

■ **Most respondents verify before sharing.**

Most read without sharing until certain or verify in other sources; only 4.9% share without prior verification. Upon detecting disinformation, 41.6% consult a reliable source and 27.6% notify their contacts, while 14.1% remain passive. These patterns are consistent across age groups and municipality sizes.

■ **Public media and scientists are the most trusted sources.** Among the target group, public media (75.7%) and scientists (73.5%) are the most trusted sources, while governing and opposition parties fall below 10% and AI tools reach only 2.2%, suggesting that older adults in rural areas still place their trust in expert voices.

disinformation, pointing to the limited effectiveness of existing programmes or the perceived complexity of detecting disinformation even after formal training.

■ **Media literacy education landscape is fragmented and largely urban.** All four countries have initiatives addressing older adults, but they are predominantly short-term, externally funded, limited in scale and city-focused. The content often overlooks critical thinking and the ability to recognize manipulation, focusing almost exclusively on basic device and digital navigation skills.

■ **Interventions must go to where older and rural audiences already are.** Engagement among these groups hinges on in-person sessions in familiar settings rather than online or self-directed models, which have high dropout rates. Non-formal learning techniques tailored to older adults are essential for reducing participation barriers. The face-to-face, gamified, train-the-trainer approach directly addresses this need.

The report contributes to the design of POP's media literacy approach by giving a cross-border analysis of mis- and disinformation exposure and media literacy provision for older adults and rural communities across Spain, Germany, Italy and Croatia. Its findings feed directly into the POP Framework (D2.2) and will guide all subsequent design, content and evaluation decisions in the project.

**Disclaimer:** The disinformation narrative analysis presented in this report draws on open-source monitoring and fact-checking databases maintained by each national partner organization. It is not intended as a comprehensive or representative mapping of all disinformation activity in each country, but as a targeted analytical scan of narratives most likely to affect rural communities and older adults in the five thematic areas of the POP project. Country-level data should not be used to draw comparative conclusions about the overall prevalence of disinformation across project countries.



## 2. Mis/disinformation narrative analysis

### 2.1. Primary narratives

#### 2.1.1. Economy and pensions

This category encompasses false or misleading narratives related to the sustainability and management of the public pension system, the impact of immigration on social benefits, the economic situation of retirees, and reforms to the social protection system. Our experience indicates that disinformation in this field is structured around two main vectors: (a) alarmist narratives about the imminent collapse of the public pension system, which exaggerate demographic and fiscal deficits in an attempt to generate distrust of institutions and promote privatization-oriented solutions; and (b) financial fraud and scams specifically targeting older adults, exploiting their concerns about savings management and their lower levels of digital literacy. The latter, however, are examined in the section on scams and digital security.

#### CROATIA

Narratives primarily revolve around financial scams and, to a lesser extent, disinformation surrounding the introduction of the digital euro. While debates concerning pension and economic systems are frequent and pervasive in the public sphere, they generally remain within the domain of conventional political discourse, where various actors advocate for diverging economic policies. Occasional instances of data manipulation, policy misinterpretations or decontextualized claims by political figures have been observed, yet these specific narratives rarely achieve significant virality or broad systemic impact [1, 2, 3]. Frequent reader inquiries about the pension system show that citizens face systemic barriers when trying to find clear, accessible information. This systemic lack of information accessibility creates a specialized vulnerability among the retirees providing fertile ground for disinformation actors to deploy misleading economic narratives and exploit the financial anxieties of this demographic [1, 2].

- **“Partisan pensioners are a privileged group”:** periodic debates resurface claiming that WWII veterans ([“Partisan pensions”](#)) receive superior treatment compared to Homeland War veterans or that the number of such pensioners remains disproportionately high. These narratives often exploit historical grievances to fuel contemporary social division.
- **“The digital euro will eliminate cash and turn Europe into a surveillance state”:** claims alleging that its introduction will lead to the total abolition of physical cash, the establishment of state-mandated surveillance over citizens' private lives, and the restriction of financial autonomy. Furthermore, these claims suggest that the digital euro will mirror the Chinese social credit system. Such assertions have transcended marginal social media profiles and were articulated by certain members of the Croatian Parliament. These actors have claimed, for instance, that EU regulations might prevent private investments in companies due to ideological misalignment with the European Commission. They further draw parallels to China's social credit mechanisms, alleging that algorithms monitoring facial expressions and government loyalty could eventually be integrated into the European Union to dictate citizens' access to healthcare, public transport, and other essential services based on their perceived political adherence. Individual social media users leveraged [power outages in Spain and Portugal to amplify narratives regarding the perceived dangers of implementing the digital euro](#) suggesting that a transition to a purely digital currency would leave citizens vulnerable and financially paralyzed during infrastructure failures or energy crises [1, 2, 3].

#### ITALY

This type of disinformation centres primarily on the pension system, exploiting widespread anxieties about its long-term viability. False stories often focus on the fact that the social security system lacks the financial resources to pay pensions, a situation partly attributed to “politicians' high pensions” and “subsidies for migrants”. There is often a great deal of confusion surrounding pension reforms.

- **“Politicians have extremely high pensions”:** according to this narrative, [politicians](#) and [union leaders](#) receive very high pensions ranging from 30,000 to 98,000 euros per month. This leads to the idea of a stark economic and social disparity with the rest of the population, who are forced to go hungry while the powerful grow richer.



- **“Pensions have been cut”**: when governments change, pension reforms often follow. Especially depending on which political parties are in power, [false reports](#) often circulate in such cases, confusing [pension cuts](#) with the amount of the [minimum required contributions](#).
- **“INPS cannot pay pensions”**: according to this version, the National Social Security Institute (INPS) [does not have](#) the financial resources to pay pensions, leaving the elderly without an income.

## GERMANY

Disinformation about economic, pension, and social policy in Germany is a recurring phenomenon on social media and video platforms. It is often deliberately designed to trigger strong emotions such as fear, anger, or hope, especially among people directly affected by these issues, such as pensioners. These narratives typically take complex political or economic topics and oversimplify or distort them, making the claims appear plausible despite being false. Their purpose is often to generate attention and clicks, undermine trust in public institutions, or intensify social tensions.

- **“Pensioners will receive double pension payments”**: claims about non-existent [pension increases](#) or [special payments](#). Examples include supposed double pension payments from a certain date or one-time tax-free bonuses of several hundred euros, often spread as “breaking news” on platforms like YouTube or TikTok.
- **“Pensioners should leave the country”**: [fake statements](#) attributed to politicians, such as alleged derogatory remarks about pensioners. These are often based on manipulated videos or AI-generated audio and have no real basis.
- **“Pensioners are systematically disadvantaged in Germany”**: many claims are designed to create fear or distrust in the pension system. These include [alleged payment suspensions due to EU regulations](#), claims of [double taxation](#) of pensions, supposed [unfair pension payments to refugees](#), or warnings that [pensions will be cut off if official letters are ignored](#).
- **“The EU wants to abolish cash without mercy”**: another common narrative is the alleged plan by the EU or the German government to [abolish cash](#). Variations include a [complete ban on cash](#), [mandatory digital payments](#), or [new reporting requirements for cash deposits](#).

## SPAIN

Economic disinformation in Spain revolves around issues related to **taxes, pensions and social benefits**, which appeal to perceptions of fiscal injustice and fears for economic stability. These narratives often use inflated or decontextualized figures to generate **social alarm and distrust** of institutions. When it comes to pensions, Spain has for years been subject to a persistent narrative about the “unsustainability” of the public pension system which, although based on legitimate economic debates, often becomes disinformation when presented in a biased or outright false manner.

- **“The public pension system is unsustainable and will collapse”**: claims that pensions are unfairly taxed with personal income tax, suggesting an alleged [“double taxation”](#), or the claim that [the European Parliament has ruled to exempt them](#). More recently, the rumor has also circulated that Social Security had [“lowered the minimum widow's pensions if you receive more than 9,442 euros”](#), when they were referring to the “minimum supplement”, which in reality has also increased.
- **“The middle class and retirees pay disproportionate taxes”**: claims that [the middle class pays more than 50% of their income in taxes](#), or that [certain income brackets will face disproportionate increases](#). Changes in withholdings were used to claim that some [taxpayers would pay up to 1,000 euros more in their tax returns](#), when in fact only the payment schedule changed, not the total amount.
- **“The digital euro will be used to eliminate cash and control citizens”**: with messages claiming that [the use of the digital euro will be enforced, that physical money will be eliminated and that it will be a mechanism for financial surveillance by the state](#).
- **“The state gives away houses and salaries in the villages”**: this narrative frames repopulation incentives as far more generous than they actually are. Several municipalities in what is known as “Empty Spain” became unwitting targets of a [wave of hoaxes promising free housing, guaranteed salaries, and nonexistent immigration benefits](#).



### 2.1.2. Immigration

Misleading narratives within this category portray migrants and refugees as threats to the security, economy, cultural identity, or social cohesion of host societies. As the European Commission's Joint Research Centre points out, they usually exploit terminological confusion about migration and the public's limited knowledge of asylum procedures (JCR, [2025](#)). In the European context, three main narrative families are identified (Neidhardt, [2025](#)). The first is the **security threat narrative**, which systematically links immigration to crime, terrorism, or public disorder through the false or unsubstantiated attribution of offenses to migrants. The second is the **economic threat narrative**, which claims that migrants disproportionately consume public resources (social benefits, housing, healthcare) to the detriment of the native population. The third is the **identity-based or conspiratorial threat narrative**, which includes theories such as the “Great Replacement”, according to which elites deliberately promote immigration in order to replace the native population.

#### CROATIA

With the increasing number of foreign workers over the past three years, social and political tensions related to (im)migration have escalated. This trend includes [the proliferation of conspiracy theories \(such as the "Great Replacement" Theory\) and other disinformation narratives](#). Furthermore, Croatia is witnessing increasing instances of violence and criminal acts committed against foreign workers.

- **"Migrants commit violent crimes against locals":** the most prominent case concerns a fabricated report that a migrant in Zagreb had brutally attacked a nun while shouting religious slogans. First published by self-proclaimed journalist Marin Vlahović and amplified by far-right figures including Velimir Bujanec and the Slovenian portal Nova24TV, which even fabricated the attacker's identity, [the false report reached a global audience through anti-migrant activist Tommy Robinson](#). A swift police investigation revealed that the attack never happened; the nun had inflicted the injuries on herself. There were also other false accusations of foreign workers and migrants for serious offenses and crimes, ranging from violence, [theft](#), and [forged documents](#) to the [sexual harassment of women](#) and [girls](#). Local social media users, influencers, and politicians often cite “alleged experiences” from foreign countries to spread conspiracy theories and disinformation about migrants. For example, it was shared through social media that [migrants have stabbed the local mayor](#), that migrants have organized a protest against the Christmas festival in Germany or that they have [assaulted girls in Scotland](#). [The example of Sweden as the “rape capital of the world”](#) is also often used to signal the “shift” that a large migrant population might bring to a country.
- **“Foreign workers bring dangerous and uncivilized customs”:** foreign workers have been falsely accused of various alleged cultural practices and customs in order to shock local populations, such as claims that [“Nepali workers are cooking and eating rats”](#) or that [“Nepali workers have freezers full of cat meat”](#).
- **“Migration drives crime”:** politicians frequently employ [data manipulation or entirely inaccurate information](#), often drawing false correlations between unrelated datasets, such as [the total number of foreign workers versus the crime rate among foreigners](#), using the topic of migration as a tool for political confrontation.
- **“Migrants bring infectious diseases”:** disinformation regarding [alleged infectious diseases brought into Croatia by foreign workers](#) is also prevalent.
- **“Migrants and refugees receive more state support than Croatian citizens”:** just after Russia's invasion on Ukraine, when Croatia also accepted refugees from Ukraine, a narrative started forming on how Ukrainian refugees received extensive benefits ([housing, access to education, financial aid](#)) that Croatian citizens themselves could not count on from the state. Similar narratives continue to resurface periodically in relation to [asylum seekers and immigrants](#) more broadly.

#### ITALY

Italy is a country rife with misinformation and hate speech directed not only at refugees, but also at other migrants and asylum seekers. Unfortunately, this issue has long been marked by violence and discrimination. The main targets are Arabs and Muslims (including second-generations) who come from North Africa and West Asia, but Chinese migrants and Ukrainian refugees have also been and continue to be targets. The most widespread belief is that migrants are invading Italy and Europe more broadly, and that there is a deliberate plan to replace the white population. A related concern is that these people are dangerous and violent, opposed to “Western values”, and unwilling to integrate. They



are not an asset to society, but a problem and a burden. In fact, migrants are also described as people who demand financial assistance from the state. All false stories that have given rise to [pro-remigration movements, conferences](#) and [protests](#).

- **“Migrants are flooding into Italy and other European countries”**: the main xenophobic narrative, claims that migrants are [invading our country](#) and all of Europe. In particular, there is a [claim](#) that the Italian right wing (including the media) has been promoting for years: that there are over 700,000 people leaving Libya to “invade” us; and that one of the results is that these people want to [change “our culture”](#).
- **“Migrants are scammers, dangerous, and violent”**: one strategy used to discredit migrants is to link them to false news stories that [portray them as fraudsters](#), [violent individuals](#), [criminals](#), and, more generally, as [openly opposed](#) to Western values. Most of these false stories emphasize ethnic and cultural differences (and often religion as well) to fuel xenophobic sentiments.
- **“In Italy, migrants can obtain citizenship very easily”**: there is a [widespread belief](#) that this is true. This belief became particularly widespread in June 2025, when a referendum on citizenship was held to amend one of the requirements.
- **“Migrants come to Italy to take our money”**: migrants are portrayed solely and exclusively as a [burden on society](#), [receiving](#) 45 euros a day, a smartphone, [a credit card and many other benefits](#). Even second-generation immigrants are portrayed in the same way: the government allegedly [provides all subsidies](#) and financial aid exclusively to them, leaving Italians behind.

## GERMANY

Immigration is one of the topics most heavily affected by disinformation. False narratives in this area are widely circulated online, often targeting older audiences by linking migration to crime, welfare, or cultural change in emotionally charged ways.

- **“Children with a migration background are violent and commit crimes”**: claims suggesting that juvenile crime in Germany is rising significantly and is mainly driven [by minors with a migration background](#), allegedly linking migration directly to violent behaviour without providing any evidence.
- **“Refugees are better off in Germany than Germans”**: claims that refugees receive [more financial support than German citizens](#). This appears in several forms, like claims that suggest that [refugee benefits exceed the income of employed workers](#) or that the [government provides a €500 welcome payment](#) for refugees.
- **“Germany is being culturally replaced or overrun by migration”**: this narrative claims that migration is leading to the cultural displacement of Germany. This appears in several variants, such as claims that [Muslim prayer calls have “taken over” Christmas markets](#), that [St. Nicholas is being renamed the “pointy-hat man”](#) to promote diversity or [that the government is “pairing” adult male migrants with underage German girls](#).

## SPAIN

Immigration has been a constant focus of disinformation narratives in Spain, often aimed at **criminalising immigrants** or painting them as **a threat to social and economic stability** (Maldita.es, 2025). These narratives often exploit **fear** and **prejudice** by using false or misleading claims to provoke distrust towards immigrant communities. Common strategies include **misattributing violent crime to migrants**, **associating unaccompanied minors with violence**, or claims of **“positive discrimination”** that benefit migrant people to the detriment of Spaniards. Messages often rely on stigmatizing labels such as *“mena”* (acronym for unaccompanied foreign minor), *“pagapensiones”* (“pension payer,” used sarcastically), or *“joventlandés”* (a pejorative neologism implying foreign origin). In addition, migrant arrivals on the coasts are often exaggerated to **portray a crisis** or **“organized invasion”**, and to **feed narratives about an alleged loss of border control** or **government complicity in mass immigration**.

- **“Migrants are violent”**: one of the most recurring narratives associates migrants with violence, crime, and incivility, frequently targeting young men, even minors, from North Africa. Labels such as “Maghrebi,” “Moroccan,” or “unaccompanied minor” are common in messages



disseminated within this narrative. Furthermore, it operates through a recurring mechanism: following any criminal incident (real or fabricated), images taken out of context, invented identities, and manipulated data are rapidly disseminated, generalizing blame to the entire immigrant community. The most documented case of 2025 was that of [Torre Pacheco](#). Other examples include the [stabbing of an 11-year-old child in Mocejón](#); claims that [all those arrested for robbery in the DANA-affected areas of Valencia were immigrants](#); and [narratives linking migrants to animal attacks](#)).

- **“Unaccompanied migrant minors are dangerous”**: one example followed the murder of a social worker in a supervised housing facility in Badajoz (Extremadura) on 9 March. Social media quickly flooded with messages such as “a group of [three menas](#) murder a social worker in Badajoz”, attributing the crime to migrant minors, or “this is one of the brats who murdered a caregiver in Badajoz; as you can see, he is not Spanish. Guess where he is from: his name is Mohamed H” (sic.), accompanied by a photograph presented as one of the detainees. However, the National Police in Badajoz confirmed that the minors involved were not foreigners but “Spanish nationals of Spanish origin”.
- **“Migrants are invading the West with government complicity”**: examples include that [the Spanish government allows them to arrive on Spanish shores without doing anything](#)”; or that [“the people who arrive on patera are part of an organized army”](#).
- **“Migrants receive more aid than Spanish citizens”**: for instance, in the context of Israeli attacks on Palestinian civilians over the past year, content circulated claiming that [refugees from Gaza received €1,600 per month](#) for ten years simply for being refugees. Other examples include claims that [undocumented migrants receive €1,000 per month in benefits upon arrival in Spain](#), or allegations that [Spanish municipalities such as Barcelona were registering undocumented migrants](#) at private residences without consent in order to allow “illegal immigrants” to access social benefits. A related variation asserts not only that migrants receive privileged access to aid, but that they waste it. For several years, [disinformation content has accused migrants of discarding food donated](#) by the Red Cross or funded through European Union programs. The extraordinary regularization of migrants approved by the Spanish government in 2026 also triggered a [wave of disinformation](#).
- **“Islam is a threat”**: messages claiming that Islamic customs are being imposed in ways that [endanger Spanish traditions](#). For example, allegations that [Sharia law](#) and [Islamic religious instruction](#) are being imposed across Europe, or that [pork has been banned in school cafeterias](#), among others. The perception of an imminent “Islamization” promoted by these narratives may be particularly unsettling for older individuals with more fixed traditional identity reference points.

### 2.1.3. Science and health

This category includes disinformation narratives related to scientific and health issues (diseases, treatments, medications, vaccines, medical practices, alternative remedies, etc.), often distorting or misinterpreting scientific data, proposing anti-scientific theories, promoting unproven health alternatives, exploiting uncertainty, or fostering distrust in scientific and medical institutions. It is the category with the greatest direct and documented impact on public health, given that disinformation in this area can translate into behaviors that put people's lives at risk: refusing vaccines, abandoning medical treatments, consuming remedies without proven effectiveness or delaying seeking professional care. Academic research identifies several recurring narrative axes: (a) **vaccination-related disinformation**, fueled by anti-vaccine movements that spread distrust and conspiracy theories regarding the safety of established immunization programs; (b) **lifestyle distortions**, where profit-driven entities promote unhealthy products (such as ultra-processed foods, alcohol, and tobacco) while dissimulating their potential harms to public health; (c) **alternative medicine and miracle supplements**, involving influencers who advocate for untested treatments and promote a general distrust toward conventional medicine; and (d) **mis-disinformation regarding prescription drugs, diagnostic tools, and crisis scenarios**, which uses social media to evade advertising regulations, promote deceptive self-diagnosis, or spread false rumors during disasters to manipulate public response (Aouati et al., [2024](#)).

### CROATIA

[The most common health-related disinformation in Croatia concerns vaccines](#), due to long running anti-vax groups in the country. Disinformation regarding the health of women and transgender persons, as part of the political struggles of anti-gender movements is also prevalent. The sheer volume of public



queries that Faktograf receives on health topics speaks to how disorienting this landscape is for ordinary citizens – from dubious preparations to [natural remedies](#) marketed as alternatives to conventional medicine. In this area, we notice a significant number of suspicious advertisements on websites, as well as fake AI-generated ads on social networks that often incorporate conspiracy theory narratives claiming the pharmaceutical industry and global elites are hiding natural or miracle cures from citizens. Conspiracy theories regarding Chemtrails or 5G technology, also include health since these technologies are allegedly attempting to poison the population for the purpose of population control.

- **“Vaccines are unsafe”:** [anti-vax disinformation](#) appears on social networks in waves and is particularly pronounced during changes to the vaccination calendar or the introduction of new mandatory vaccines, as was the case with [HPV](#) and seasonal vaccinations.
- **“Medical diagnostic procedures are unnecessary or harmful”:** : disinformation regarding various medical diagnostic procedures, such as [mammographies](#), [biopsies](#), and [others](#), also appears periodically. Recently, disinformation about mammographies became more common and it was even spread by a small local political party on its Facebook page claiming that [state sponsored mammography programs are just money laundering since mammography can't find all types of cancer](#).
- **“Gender-affirming care harms children and young people”:** The health of transgender persons is frequently instrumentalized by anti-gender actors for political gain and doctors providing care for transgender individuals are often targeted by right-wing actors. [Information regarding the medical care of transgender minors and youth is specifically manipulated](#), as are official figures on the number of people [experiencing gender dysphoria](#). Although gender reassignment for minors is prohibited in Croatia and the country maintains a conservative approach, extremist actors continuously attempt to radicalize the public on these topics.
- **“Sex education sexualises and harms children”:** [disinformation](#) about sexual health education in schools commonly claims that health education leads to promiscuous and risky sexual behaviour and causes the “sexualization” of children, or is otherwise linked to exposing children to paedophilia and homosexuality.
- **“Pharmaceutical companies and elites are hiding miracle cures”:** a recurring conspiracy narrative claims that revolutionary treatments exist but are being suppressed, often violently, by the pharmaceutical industry and global elites. AI-generated ads [\[1, 2, 3\]](#) for miracle cures always follow the same pattern: a famous person, doctor, or scientist has discovered a revolutionary cure, faces persecution for it, but courageously reveals the truth and urges citizens to buy the product. Prominent Croatian medical figures and journalists have repeatedly been used without consent in these campaigns.

A case from 2023 shows us how misinformation about a potential public health problem can turn into widespread panic among the population. Specifically, [the poisoning case in Rijeka](#) began with the hospitalization of a young man who consumed an alkaline cleaning agent that was put in a mineral water bottle at a cafe, which triggered a wave of mass panic and disinformation on social media due to the slow response from official institutions. Although it later turned out to be an isolated incident, public distrust was deepened by the spread of audio recordings and photos alleging the mass poisoning of entire product lines from a multinational corporation.

## ITALY

Health-related mis-disinformation in Italy focuses primarily on vaccines; in fact, there is a very strong anti-vaccine grassroots movement in the country that believes vaccines cause autism. With the COVID-19 pandemic and the associated vaccines, misinformation on the subject has grown significantly, portraying them as unsafe drugs that have made many people sick and killed others. There is also no shortage of misinformation regarding other diseases, such as cancer, and their treatments. In this context, Big Pharma is often targeted because it is viewed as untrustworthy; the claim is that its sole aim is to enrich itself rather than to actually find cures.

- **“Vaccines cause autism”:** a persistent narrative portrays vaccines as unsafe, claiming they [contain graphene](#) and [heavy metals](#) and are [the real cause of autism](#). Many parents who believe this falsehood choose not to have their children vaccinated.



- **“COVID-19 vaccines have made thousands of people sick and killed them”**: As these vaccines became widely available in 2020-2021, claims spread that they caused [thousands of people to fall ill](#) (particularly with [heart disease](#) and [tumor](#)) and of [killing just as many](#).
- **“Cancer can be cured with lifestyle changes and alternative remedies”**: Much of the [mis-disinformation about cancer concerns](#) its causes and possible treatments. Common false claims include that cancer is primarily hereditary and that alternative remedies can replace the treatment regimens prescribed by oncologists, framing chemotherapy, radiotherapy, and surgery as unnecessary or harmful.
- **“Pharmaceutical companies hide effective treatments in order to sell drugs and make a profit”**: One of the most [widespread hoaxes](#) within this narrative (which amounts to a full-fledged conspiracy theory against pharmaceutical companies) claims that a [definitive cure for cancer exists](#), but that pharmaceutical companies and doctors are hiding it in order to profit from it. This frame extends to other diseases and feeds directly into broader anti-institutional distrust of the healthcare system.

## GERMANY

Science and health-related topics in Germany are frequently targeted by disinformation, with narratives often using pseudo-scientific language to undermine trust in public health institutions and evidence-based medicine.

- **“Vaccines are being used for hidden control, forced on children, and their risks are being suppressed”**: claims that vaccination policies are coercive, that [the German government plans mandatory vaccination for children](#) with penalties for parents, or that international institutions like the [WHO coordinate punitive measures against vaccines](#).
- **“Natural foods or home remedies can cure cancer”**: this narrative promotes the idea that simple [natural substances can cure cancer](#), often claiming that they are [more effective than medical treatments](#).

## SPAIN

Narratives on science and health tend to question, among others, the credibility of medicine, presenting unfounded theories that create confusion or skepticism on topics such as **vaccination** and **food safety**. The COVID-19 pandemic was a turning point in the scale and speed of scientific-health disinformation in Spain. Although Spain does not have vaccine rejection rates as high as other European countries, the pandemic generated a wave of mistrust that has left persistent consequences. One year after the start of confinement, hoaxes about COVID-19 vaccines accounted for 54% of all disinformation spread about the pandemic according to Newtral, and 48% according to Maldita.es (Almansa-Martínez, Fernández-Torres & Rodríguez-Fernández, [2022](#)). Beyond vaccines, there is a considerable volume of disinformation aimed specifically at the most prevalent pathologies among older people. Thus, hoaxes about diabetes, hypertension, cholesterol and Alzheimer's are common, including false claims about miraculous dietary treatments, non-existent contraindications for commonly used medications, or suppression of data on alternative cures by the pharmaceutical industry.

- **“Vaccines are unsafe and cause serious harm”**: [anti-vaccine narratives](#) stand out; with claims such as [“the flu vaccine increases the risk of Alzheimer's”](#), [“vaccines are bad for health”](#), [“they cause sudden death”](#), [“COVID-19 vaccines contain graphene”](#), and [“mRNA vaccines alter human DNA”](#).
- **“Natural remedies and alternative therapies are safer and more effective than conventional medicine”**: there is a vast ecology of disinformation that does not deny science (although it is still present, such as [cholesterol denial](#)) but offers supposedly superior alternatives: natural remedies, healing diets, supplements, and alternative therapies presented as safer and more effective than conventional medicine; which can be especially attractive as they are presented as popular wisdom or knowledge hidden by the pharmaceutical industry. Common examples include [narratives about chemotherapy](#) claiming it “kills more than cancer” or that doctors are “forced to prescribe it”; claims that sunscreen [“increases the risk of skin cancer”](#) or [prevents the synthesis of vitamin D](#); the idea that [specific foods and restrictive diets can cure any type of cancer](#) without chemotherapy; and false claims about miracle cures for [Alzheimer's](#) or the supposed [health benefits of being moderately overweight](#) in older adults.



#### 2.1.4. Climate change, agriculture and livestock farming

This category encompasses narratives that deny, distort, or politically exploit the climate crisis and its relationship to the primary sector. Disinformation in this area operates on two simultaneous or frequently interconnected levels: on the one hand, climate denial and relativism, which question the existence, human origin, or severity of climate change; and on the other, the exploitation of agricultural discontent, which takes advantage of the legitimate demands of farmers and ranchers to spread conspiracy theories against the EU, green policies, and institutions in general. Both levels converge in a disinformation ecosystem that has a direct impact on rural areas, where agriculture and livestock farming remain the cornerstone of identity, the economy, and society for a large part of the population over 50. Academic research distinguishes between classical denialism (denying that climate change exists or has a human cause), climate relativism (minimizing its urgency or questioning the measures), and climate obstructionism (accepting the existence of the problem but delaying, softening, or blocking effective measures to combat it) (Gertrudix et al., [2024](#)). The HEAT (Harmful Environmental Agendas & Tactics investigation) project, run by Logically and EU DisinfoLab with support from EMIF, identifies four pillars of climate disinformation in Europe: the **conspiratorial environment** (HAARP, chemtrails, geoengineering), the **culture war and partisan discourse** (framing climate action as elitist or authoritarian), **hostile state actors** (disinformation amplified by foreign media, notably Russia-linked outlets such as Pravda and RT), and **campaigns aligned with fossil fuel interests** (Logically & EU DisinfoLab, [2025](#)).

#### CROATIA

The analysis titled "[Fabricating Doubt and Persecuting Science](#)" based on 90 articles published by Faktograf between 2018 and 2023, demonstrates that the primary objective of climate disinformation is to undermine trust in science. Rather than completely denying the existence of climate change, which has become increasingly difficult due to visible shifts in climatic conditions, the focus has shifted toward discrediting scientific authorities and proposed solutions. Within the analyzed sample, 44% of the articles pertain to the narrative that climate science is unreliable, followed by the claims that human activity does not cause climate change at 18% and that public policies are unnecessary at 17%. Narratives such as the outright denial of climate change at 8%, the claim that the impact of climate change on life on Earth is not harmful at 3%, and the overemphasis on weather extremes at 7% are significantly less represented. What we observe regarding climate disinformation is the fact that a significant number of these claims originate outside of Croatia. This includes disinformation surrounding extreme weather events in other countries, such as [the floods in Spain](#), or [the farmers' protests in different EU countries](#), as well as content allegedly exposing the hypocrisy of [politicians](#) or [activists](#) who advocate for climate policies.

[Research conducted by the University of Zadar in 2024](#) on a representative sample of 1,000 citizens reveals a concerning level of susceptibility to climate disinformation. Although 80% of respondents believe they have a good understanding of the issue and can easily identify disinformation, their answers to specific questions suggest otherwise. Specifically, 40% of citizens partially or fully believe that climate change is exclusively a natural cycle, while 35% partially or fully agree with the claim that electric cars are dangerous and unreliable. Furthermore, nearly 40% of respondents consider environmental policies to be more of a political interest than a scientific fact, and just over 40% of citizens believe in the "chemtrails" conspiracy theory. Additionally, 24% believe that 15-minute cities are intended to restrict citizens' freedoms, while 23% believe that scientists control the weather through facilities like HAARP and CERN. Notably, 39% of respondents incorrectly believe that scientists do not agree on the severity of the situation, despite a nearly overwhelming consensus within the scientific community. The research identified several **key predictors** of misinformation susceptibility. Older generations and individuals with lower levels of education are more prone to non-scientific interpretations of climate issues. The highest susceptibility to disinformation is found among **those who gather information through podcasts and social media videos**, as well as **viewers of fringe and extremist programs**. Finally, the lowest levels of trust are expressed by voters of the extreme right and individuals who have no interest in politics whatsoever.

- **"Extreme weather events aren't caused by climate change"**: conspiracy theories related to climate change are highly prevalent among social media users, particularly during extreme weather events. These occurrences are frequently attributed to scientists and elites ["controlling the weather"](#) rather than to climate change itself. We have even recorded instances where extreme weather was portrayed as divine punishment for the practice of abortion. During the summer wildfire season, disinformation regarding arsonists is common, with several cases where [fires were falsely attributed to citizens of Serbian ethnicity](#), further inciting inter-ethnic



tensions. Additionally, summer seasons see the cyclical reappearance of disinformation regarding [the manipulation of meteorological maps](#) and [historical temperature data](#).

- **“Electric vehicles are unsafe, unreliable, and part of a harmful climate agenda”:** [an analysis of EV-related disinformation in Mediterranean countries](#), conducted by Faktograf and Klimatski Portal in partnership with Raskrinkavanje.me, showed that Croatia and Spain share three fundamental narratives: “EVs are unsafe and/or unreliable”, “climate policies are harmful and/or unnecessary”, and “science on EVs is unreliable”. Concerns regarding EV reliability and safety were by far the most prevalent, followed by narratives targeting climate policies. Consequently, the majority of claims debunked or prebunked by fact-checkers played on fears that EVs are fundamentally flawed or dangerous pieces of technology.
- **“European Union will make us eat bugs”:** disinformation and manipulation regarding [agricultural policies and food production](#) frequently appear in the online space, often fueled by political actors, including those in the national parliament. For instance, one member of parliament stated “In 2023, when technology has advanced so much, when science has gone so far, when we can have top-quality and healthy food, the head of the European Commission is sending us on a time machine to the era of John the Baptist by saying that European citizens, including us Croats, should eat insects”. Exploiting the “disgust instinct” toward the unknown is a frequent basis for spreading disinformation about food policies, which is why [the consumption of insects is a recurring topic for climate disinformers](#). It is part of a broader narrative about elites imposing restrictions on ordinary citizens; restrictions so extreme they would force people to abandon traditional food in favour of insects.

## ITALY

In terms of climate and the environment, initially a portion of the Italian population denied climate change and did not believe in its effects, even taking issue with environmental activists and various forms of protest. Then, a new form of denialism emerged, targeting and discrediting renewable energy and various solutions to combat climate change, such as electric cars. Regarding food safety, there was a significant disinformation campaign claiming that insects were present in products sold at supermarkets, secretly added.

- **“Climate change is not real and/or is not related to human activities”:** a theory that [denies the existence of global warming and climate change](#), [their effects](#), and [their cause](#) (human responsibility).
- **“Electric cars are useless and are dangerous”:** [claims that question](#) the role of electric cars as a solution to climate change, arguing that they [are dangerous](#) because lithium batteries [explode easily](#) and useless because these [cars don't work in cold weather](#).
- **“They're cutting down trees to install solar panels”:** [false claims spread](#) to suggest that green solutions to climate change are a farce.
- **“Companies secretly put insects in food”:** following the introduction of European regulations on the sale of edible insects, some people have begun to believe in a [conspiracy theory claiming that certain retail chains or manufacturers](#) are already including insects in their products without disclosing it.

## GERMANY

Disinformation on climate change, agriculture, and livestock farming in Germany often targets emotionally sensitive issues like environmental policy, food production, and rural livelihoods. While climate-related narratives are usually widely circulated and emotional, agricultural and livestock-related claims tend to be more niche and based on selective use of facts.

- **“Climate change is not real and/or is not related to human activities”:** a common claim argues that [cold spells](#) or [heavy snowfall disprove global warming](#).
- **“Agricultural policy is destroying farming and forcing farmers out of business”:** this narrative claims that government policies are intentionally undermining agriculture, [for example through land-use restrictions or regulatory pressure](#).
- **“Livestock farming has little or no impact on the climate”:** another common claim within this narrative suggests that industrial animal farming [does not significantly affect the climate](#).



## SPAIN

Climate change disinformation in Spain includes narratives that undermine the existence and/or impacts of climate change, the unambiguous human influence, and the need for urgent action per the IPCC scientific consensus and the Paris Agreement. These narratives distort scientific data to erode trust in climate science, institutions, experts, and solutions. They may also falsely advertise support efforts for climate goals that, in reality, contribute to global warming or contradict mitigation and adaptation measures, relating to what researchers call climate obstructionism. Spain presents a particularly dense disinformation ecosystem in this category, shaped by the convergence of recurring climate denial narratives, the instrumentalization of genuine agricultural grievances, and a series of acute crisis events (such as the 2024 Valencia flash floods, or the 2025 wildfires) that served as catalysts for large-scale disinformation campaigns.

### *Climate change denial and manipulation narratives*

- **“Climate change is not real and/or is not related to human activities”**: persistent narratives [denying or relativising climate change](#), claiming it is natural rather than human-caused, or that CO<sub>2</sub> is [“food for plants”](#).
- **“Extreme weather events are artificially engineered”**: for example, during the Valencia flash floods (October 2024), disinformation centred on [HAARP and artificial climate manipulation](#), and the false claim that the DANA was [artificially triggered](#) to damage Spanish farmland, among others.
- **“Electric vehicles don’t help fight climate change”**: this disinformation narrative argues that the transition to electric vehicles is either useless or counterproductive. It includes claims that electric cars catch fire more easily, that [charging stations rely on polluting diesel generators](#), that they have a [greater environmental impact than combustion-engine cars](#), and that governments are pressuring people to switch to electric cars [based on the false promise that they will “save the planet”](#).
- **“Other countries and elites should fix climate change, not citizens”**: e.g., this narrative accepts the reality of climate change but [shifts the burden of action away from one's own country or individual action](#). It includes claims that China and India are mainly responsible for the climate crisis and [should act first](#); that the EU emits less than 10% of global CO<sub>2</sub> and, so its efforts are pointless; that only the rich or corporations should take responsibility, not ordinary citizens; and that acting alone would hurt national competitiveness while others continue polluting.
- **“The Spanish government is deliberately worsening the drought by demolishing dams”**: e.g., this narrative claims that [current water shortages in Spain are intentionally caused by national authorities or the EU through the removal of water infrastructure](#). It includes claims that the government is destroying fully functional dams during a drought; that demolitions are part of an EU agenda that ignores national needs; that usable reservoirs are being dismantled to create artificial scarcity; and that dismantling small water barriers directly reduces Spain’s ability to retain water.
- Other recurring narratives also include [chemtrails and aerial fumigation](#) and the [“15-minute city”](#).

### *Agricultural and agri-food disinformation*

Farmers' and livestock producers' legitimate grievances have been systematically instrumentalized to spread disinformation that goes well beyond the actual demands of the sector. The report *A Fertile Ground for Disinformation: From Spreading Climate Change Misinformation to Undermining Climate Action: How the Farmers’ Protests Were Used to Influence Audiences* (Newtral & Science Feedback, 2024) found that “81.6% of the total posts featuring narratives against climate action and the EU in the most popular posts about the farmers' protests were published by far-right politicians”, and were designed to amplify scepticism towards EU climate policies ahead of the European elections. The most active narrative clusters include:

- **“Renewable energy is invading and destroying agricultural land”**: for example, [photos of solar panels in other countries](#) as though they depicted the situation in Spain, or [inflated figures for real projects](#) that have been disproportionately exaggerated.



- **“EU and Spanish green policies are designed to destroy agriculture”**: e.g., [“Europe wants to ban all leather products”](#), [“Brussels allows Morocco to conceal the origin of food exported to Europe”](#), or that the [Agenda 2030 prohibits clearing forests](#).
- **“Moroccan products are dangerous for Spanish agriculture and public health”** (e.g., [“Moroccan food products contain chemicals exceeding EU safety limits”](#), [“Europe opens the door to Moroccan chicken, putting Spanish farmers up in arms”](#), [“Hepatitis A detected in strawberries from Morocco”](#)).
- **“Agenda 2030 will ban meat consumption and force people to eat insects”**: e.g., [“The Agenda 2030 prohibits meat and dairy by law”](#), [“Products carrying the Rainforest Alliance frog logo contain ground insects”](#); [“Pedro Sánchez obeys Bill Gates: Spain will ‘ban’ eating meat by 2050”](#).

### 2.1.5. Conspiracy theories

Conspiracy theories offer alternative explanations for events or situations, based on the belief that a powerful group is secretly orchestrating actions with sinister intentions or control (Napolitano & Reuter, 2021). These narratives present conspiratorial explanations as the “truth” others are trying to hide, often challenging expert consensus and relying on insufficient, distorted, or non-existent evidence. They are also characterized by their resistance to falsification: counter-evidence, or even the lack of evidence, is interpreted as confirmation of its veracity. Their appeal lies not only in the falsity of the content, but in the psychological needs it satisfies; the need to understand complex or threatening events, the desire to belong to a group with special knowledge, and the feeling of agency in the face of forces perceived as uncontrollable (Douglas, Sutton & Cichocka, 2017). These aspects of conspiracy theory belief have been attributed to facilitate increases in polarization, conflict, and intergroup prejudice (Jolley et al., 2020). The result is a closed belief system that appeals more to faith and emotions than to verifiable evidence.

#### CROATIA

Conspiracy theories dominating the Croatian online space largely align with globally present conspiracies, with the added dimension that Croatian conspiracy theorists identify additional regional actors intent on destroying Croatian sovereignty, specifically Serbs and the Republic of Serbia, allegedly aided by remnants of the former Yugoslav regime. As [Blanuša et al. state](#): “The conspiratorial ecosystem of the Balkan triangle (Serbia, Croatia, and Bosnia and Herzegovina) differs from the Western European model in two key aspects. First, the legacy of the 1990s wars maintains a pervasive identity of victimhood: each community sees itself as a historical victim of external manipulation, making conspiracy theories psychologically plausible and politically useful. Second, conspiratorial narratives in the region are part of the mainstream. Unlike most EU member states, in Serbia, and to an extent in Bosnia and Herzegovina and Croatia, ruling elites and media outlets routinely disseminate conspiracy stories. Such “top-down” support blurs the line between fringe and official discourse, deepening cynicism and weakening democratic accountability”.

[Research conducted in 2022 within the framework of the project Pro-fact: Research, education, fact-checking and debunking disinformation narratives about COVID-19 in Croatia](#) shows beliefs in COVID-19 conspiracy theories, and it can also be applied to other conspiracies. Namely, the analysis clearly shows very high correlations between four forms of conspiracism: belief in COVID-19 conspiracy theories, global conspiracy theories, the existence of internal and external enemies of Croatia, and the conviction that some secret evil forces are seizing our land. The research identifies four key clusters of conspiracy belief predictors applicable to the broader disinformation landscape. The strongest predictors are scientific skepticism combined with low scientific literacy and narrow-mindedness. This is followed by political traits, specifically populist anti-elitism, “national narcissism”, and a Manichean world-view. Regarding media habits, trust in social networks over traditional media, combined with a lack of awareness of media strategies, significantly increases susceptibility. Finally, socioeconomic factors play a role, with higher belief levels found among younger populations (25-29), those with lower education and income, and residents of smaller, multi-generational households.

- The most widespread conspiracy theory is the [Great Replacement Theory](#), which is also supported by political actors who use it to promote anti-migrant political stances.
- [The Great Replacement Theory](#) in combination with the [Conspiracy on Gender Ideology](#) and so-called [Green Ideology](#), is forming what could be called a **“Woke Conspiracy”**. This consists



of a dystopian vision in which European and Western elites and mainstream political parties will lock the population inside “15-minute cities,” take away their cars, force them to ride bikes, influence children to change their gender, support genital operations on children without informed parental consent, make people eat bugs, allow dark-skinned men to rape white women, and generally use their policies to aim at the destruction of Christian culture and the traditional heterosexual family.

- In addition to the above, all other global conspiracy theories are present, such as: [the New World Order](#), [chemtrails](#), [HAARP and geoengineering](#), as well as [Flat Earth theories](#).

## ITALY

- **“Man has never been to the moon”**: this [conspiracy theory](#) is one of the most common in Italy, and begins to circulate again in a cyclical pattern. The topic came up during Italian astronaut [Samantha Cristoforetti's space mission](#), and it gained [traction again](#) when a famous Italian singer, Rose Villain, brought it up, and in early 2026 with NASA's [Artemis II mission](#).
- **“Airplanes release chemtrails”**: the [chemtrail theory](#) is one of the [longest-standing](#) conspiracy theories. The basic idea is that an unidentified entity is releasing chemicals harmful to humans into the atmosphere via airplanes. On social media, you can find daily posts from people who photograph the “streaked skies” created by these contrails. Some people also [believe that chemtrails](#) were the cause of the various floods in Italy in recent years.
- **“Weather forecast programs are causing alarm”**: in recent years, there has been a [widespread belief](#) that weather forecast programs [have adjusted](#) the color scale used on weather maps to create a sense of “climate alarmism”: the colors on the temperature scale would have been altered to suggest a rise in temperatures that does not actually exist.

## GERMANY

In Germany, most of these narratives are not limited to specific age groups, but circulate across different parts of the population. However, certain themes resonate more strongly depending on personal concerns or political contexts.

- **“Germany is not a real state, but a company (‘GmbH’)”**: a narrative often linked to the so-called Reichsbürger milieu claims that the Federal Republic of Germany is [not a sovereign state but a private corporation](#), while the “German Reich” still exists.
- **“Germany is still controlled by the Allies until 2099 through secret agreements.”** Another claim suggests that secret documents, such as a so-called “Chancellor file,” [prove that Germany remains under Allied control](#).
- **“COVID-19 was planned or artificially created as part of a global control agenda.”** During the COVID-19 pandemic, several conspiracy narratives gained traction, including claims that the virus was [intentionally planned by elites or figures such as Bill Gates](#) as part of a population control scheme. Another widespread claim suggested [a link between 5G mobile networks and the coronavirus pandemic](#).

## SPAIN

Conspiracy theories blend **global narratives with local contexts** to exploit social distrust and reinforce divisive agendas. These theories often intertwine **scientific phenomena, political actions and global initiatives** with unsubstantiated claims to create a sense of urgency or fear. By targeting institutions, political figures and widely recognized symbols, they embed disinformation in public discourse, which is particularly effective in polarising debates around climate change, public health and social norms, as we have recently seen with the case of the flash floods in Valencia in 2024. The main conspiracy theories active in Spain are:

- **“Elites and institutions have hidden plans to control the population”** (population reduction, food control, restriction of freedoms): for example, the [Great Replacement theory](#), the claim that the World Economic Forum is [ordering the killing of bees to cause a famine](#), or that the United Nations (UN) has a plan to [control the population through microchips](#).



- **“Crisis events (floods, blackouts, fires) are intentionally caused”:** (e.g., [“the blackout on April 28th was due to a government experiment with renewable energy”](#) or [“Morocco provoked the DANA storm to destroy the Spanish countryside”](#)).
- **“Weather is secretly manipulated by geoengineering technologies”:** (e.g., conspiracy theories claiming that the floods in Valencia were caused by a [HAARP weather attack](#), because [radars diverted clouds](#) towards the province of Valencia, or by [chemtrails](#)).

### 2.1.6. Scams and online security

This category includes digital fraud techniques that aim to manipulate, scam, or steal users' information. Online scams and digital security issues include messages with false offers, prizes, gifts, and surveys promising benefits in exchange for personal data or upfront payments. Beyond specific narratives, this category focuses on the characteristics and structures of the most common scams that may particularly affect older adults.

#### CROATIA

[According to Ministry of the Interior \(MUP\) data for the past year](#), every third victim of computer fraud is over the age of 60, though the good news is that the overall number of such frauds is declining. In 2025, a total of 1,656 computer frauds were committed with material damage in the amount of 17,215,869 €. It is safe to assume that a number of frauds remain unreported due to stigma and shame. Among the victims, 36% were older than 60, and most cases involved financial scams. These can include impersonation, withholding information, or executing actions contrary to expectations or prior agreements, according to MUP officials. The most frequent scams debunked by Faktograf in its work relate to financial fraud, potential identity theft, and [the advertising of miracle cures](#) (as detailed in the previous section on health disinformation).

- **“Recovery scam”:** a deceptive practice targeting individuals who have already lost money in previous investment frauds. The platform presents itself as a legitimate service capable of reclaiming lost funds, but investigations reveal it is a predatory scheme that uses stolen photos and fake testimonials to gain trust. Instead of recovering assets, the service demands upfront fees or sensitive financial data from victims who are already in a vulnerable position.
- **Investment platforms promising quick and easy earnings**, often involving AI generated videos of politicians, journalists or business people that are promoting alleged investment platforms promising quick and easy earnings [\[1, 2, 3\]](#).
- **[Fraud related to public transportation passes](#).**
- **Fake prize contests** exploiting the branding of well-known retailers are very common and most often result in the theft of personal data [\[1, 2, 3\]](#).
- **“Incredible deals, limited time only”:** con artists exploit emotional hooks to extract money or data through [fake stores with large discounts](#), [stores allegedly closing](#) due to business difficulties, and fake stories about [sick](#) or [unfortunate](#) people in need. Fraud related to [public transportation passes](#) follows the same pattern and has also been widely recorded in other countries.
- **“Fast and easy financial aid and loans from trusted institutions”:** dubious Facebook pages [advertising fast financial aid](#) or [loans](#) frequently use the logos of well-known financial institutions, [such as the IMF](#), to lend false credibility to their offers.
- **[Sale of foreign language courses of questionable quality targeting women which are in an unfavourable position on the labour market](#).** The so-called “Better Future” program targeted women aged 50 to 64 through Facebook ads, suggesting the courses are subsidized by local counties or EU funds. Although the campaign's visual identity mimics official government projects to appeal to this older demographic, authorities have confirmed they have no affiliation with the Polish company behind the ads. Consequently, many women in this vulnerable age group end up paying for low-quality materials, often described as poorly translated, under the false impression of receiving a legitimate, state-backed educational grant.

#### ITALY

In Italy in 2025, cybersecurity has become increasingly complex, with sophisticated attacks, ransomware, online fraud, and crimes against individuals impacting citizens' lives and essential



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services, as [reported](#) by the Postal Police. Law enforcement agencies are offering [advice](#) on how to [protect oneself](#) and are alerting citizens, especially elders, through online channels, to new scams circulating on the Internet. Some examples include:

- **“Investment platforms endorsed by politicians and celebrities”:** On social media you can find [sponsored content](#) that refers to purported television programs aired by networks such as Rai and La7, featuring exclusive messages from politicians and celebrities addressed to the “Italian people.” In these clips, the celebrities (their deepfake, actually) reveal the secret to their financial success, urging citizens to follow their example and invest a few hundred euros to end up with significant profits.
- **“Stores having a clearance sale”:** Sponsored posts [have appeared](#) on Facebook and Instagram from purported Italian and international jewelry and artisan clothing stores announcing their permanent closure after years in business, along with a complete clearance sale of their inventory. These posts link to their respective websites, where you can purchase their products at competitive prices, with discounts of up to 80 percent. The offer, in addition to being very tempting, also seems credible, and the sites appear quite reliable. But, in reality, we are dealing with a well-organized scam.
- **“Win a Decathlon backpack”:** [messages were circulating on Facebook](#) and in email inboxes urging users to fill out a simple online form to win a Decathlon backpack. This is an online scam designed to steal users’ sensitive and personal data.
- **“The ‘CARD Onde Sismiche’ file that hacks phones”:** [according to this claim, hackers are sending](#) photos of an earthquake via WhatsApp to hack users’ phones. The file is reportedly called CARD Onde Sismiche. In reality, this story is false and is nothing more than a WhatsApp chain message.

## GERMANY

Scams targeting digital users in Germany increasingly affects older people, who are often less familiar with online communication formats and therefore more vulnerable to manipulation. Many scams rely on emotional pressure, impersonation of trusted institutions, and the creation of urgency to obtain money or sensitive data.

- **“Family members are in urgent trouble and need money immediately.”** A common scam is the [so-called “grandparent scam” or shock call](#), where criminals impersonate relatives in distress to pressure victims into sending money. Increasingly, AI-generated voices are also used.
- **“This is my new phone number, save it and contact me”.** This one involves messages via WhatsApp or SMS in which fraudsters pretend to be [a child or relative using a new number, later requesting money or sensitive information](#).
- **“Transfer money to protect it from criminals”** Urgent messages or visits from alleged police or authorities are often sent out to senior citizens. The fake policemen [demand personal data or ask the people for giving them her savings so that robbers can not get it](#).
- **“Criminal complaint from the Federal Criminal Police Office.”** [Emails pretending to come from the German Federal Criminal Police Office](#) attempt to trick recipients into sharing personal data.
- **“Your device or account is compromised – contact support immediately.”** In fake tech support scams, attackers pose as bank or IT support staff and claim that a device or account is compromised. Victims are pressured into granting access or revealing data. [Fake Microsoft support pop-ups requesting sensitive data](#). These warnings often appear as pop-up messages claiming system issues. [Phishing emails and fake websites](#) imitating banks or services. Fraudsters use realistic-looking messages to steal passwords or banking data.

## SPAIN

Cyber fraud totaled 412,850 offenses in 2024 (Ministry of the Interior, [2025a](#)), compared to 70,178 in 2016, an increase of 488.3% in nine years (Ministry of the Interior, [2025b](#)). In 2025, cybersecurity incidents increased by an additional 26%, reaching 122,223 managed by INCIBE; the Cybersecurity Helpline 017 received 142,767 inquiries, 44.9% more than in 2024, with phishing, vishing, and smishing



attempts being the most frequent reason (28% of calls) (INCIBE, [2026](#)). Some recent examples include:

- **Identity theft or phishing**, cyberattack involving messages impersonating trusted entities to try to obtain your personal or bank data, (e.g., [50 phishing cases attempting to scam you during the quarantine and how to avoid them](#)).
- **Smishing**, identity theft of a company or institution through SMS to obtain your personal data or distribute malware (e.g., [Be careful if you receive an SMS from your bank's message thread asking you to update or provide your data: it's SMS spoofing](#)).
- **Vishing**, fraud committed via a phone call, where fraudsters impersonate a company or organization to obtain personal or bank details "that can be used for cybercrimes" (e.g., [Be cautious if you receive a call from supposed WhatsApp technical support](#)).
- **Fake "miracle" products**, promoted through fake celebrity interviews, impersonating media outlets. Technically, a ["miracle" product](#) is one that has not demonstrated effectiveness or safety, lacks any health control, and is illegally marketed for the purposes and/or advertising attributed to it (e.g., [Miracle products promoted through fake celebrity interviews: why they can be dangerous and how to identify them](#)).
- **Fake investment scams**, promoting investment opportunities often linked with public figures to create a sense of security (e.g., [Irene Montero has not endorsed an investment platform](#)).
- **Fake offers and prizes**, scams promising rewards (trips, lotteries, free products) or large discounts in exchange for personal data or a small initial payment (e.g., [Beware of this supposed promotion for Ikea refurbished products: it's a scam spreading in other countries as well](#)).

### 2.1.7. Artificial intelligence

Since we do not have a substantial number of narratives that include exaggerations or distortions about AI's capabilities and social effects –and since narratives that portray AI as an imminent, uncontrollable threat (e.g., replacing human jobs) are unlikely to have a significant impact on older adults– this category focuses on how AI is used to reinforce pre-existing narratives (e.g., deepfakes, media impersonation, microtargeting).

#### CROATIA

From 2023 till 2025 Faktograf has detected [more than 60 pieces AI-generated disinformation, and manipulation](#). This content most often appears in the form of videos and images, and exclusively audio content has not been recorded. In Faktograf's sample, disinformation originating in or related to Croatia is most present (40%), followed by other regions of the world such as the [USA](#), the [Middle East](#) and [Europe](#), very often related to [foreign politics](#), [wars](#) and [natural disasters](#). This indicates that manipulative and fraudulent content appears in times of crisis and in relation to socially sensitive topics and serves to promote narratives about these events (e.g., evoking [sympathy for the victims of war](#) or [discrediting politicians](#)).

At the start of the 'super election cycle' in Croatia in 2024/25, during which multiple major elections (European, presidential and local) took place in quick succession, concerns were raised about the potential impact of AI-generated disinformation on the electoral process. However, these concerns [did not materialize](#). AI-generated political audio and video content generally falls into two broad categories. The first are scams that use AI-generated footage of politicians, and the second are satire, ridicule, political commentary and political propaganda, often resorting to defamations, stereotypes and even spreading hatred, especially towards migrants, foreign workers and the LGBTIQ+ community. Quite often, AI-generated video content is cheap and not clearly marked, but from the visuals, tone and narrative used in these videos, it is clear that this is political propaganda, and not an attempt to convince voters that they are being shown real events.

- Local AI-generated content related to financial fraud and health related scams most often abuses photos and videos of [journalists](#), [politicians](#), [businessmen](#), [government officials](#) and [scientists](#), especially [doctors](#). Scammers create deepfakes that simulate or use television shows or press interviews, and the guests, politicians, or scientists talk about quick money opportunities or magic cures for widespread health problems. The aim of such content is to



harm citizens by using public figures they trust, which can potentially lead to a weakening of trust in key social and democratic actors.

- The exception is [AI generated video of well known Croatian journalist Mojmir Pastorčić](#) used to invite citizens to anti-immigrant protests. This was one of the rare locally AI-generated content that wasn't cheapfake synthetic political propaganda but genuinely produced AI content aimed to deceive Internet users.

## ITALY

Artificial Intelligence became popular in the country in September-October 2025, when most AI-generative software increased their performance. This technology is used especially to create deepfakes of politicians (sometimes even by other politicians) but also to spread sexist, homophobic, ableist, racist, and xenophobic content.

- **“Politicians scam”**: as we saw above, AI is used to create deepfakes of [politicians promoting fundraising platforms](#). We [have also identified other cases](#) in which [deepfakes of politicians](#), shared by other politicians, were created to make them say implausible political statements.
- **“AI images of tennis players”**: there is a very [popular disinformation trend](#) on Facebook that claims tennis players are doing charitable work. The stories are false, all follow the same pattern, and are accompanied by AI-generated images that supposedly illustrate athletes visiting children in hospitals, saving restaurants from bankruptcy, or presenting a cheque to a former school caretaker to fund his pension. These artificial images target public figures and celebrities to leverage their popularity and increase the engagement of the page that publishes them.
- **“AI racist images from football Twitter”**: on X, the football community [is sharing AI-generated images](#) that are explicitly offensive and racist, such as the one depicting Romelu Lukaku working on a cotton plantation.
- **“AI for sexist and racist contents”**: the Italian far right [has created hundreds of videos](#) in which they depict European capitals as “Islamized,” complete with churches turned into mosques (the so-called “Eurabia” conspiracy theory). Similarly, some users have created videos that are clearly AI-generated and [target](#) Black people and Muslims [1, 2].

## GERMANY

AI-generated content in Germany often imitates journalistic formats, interviews, or expert statements and are designed to be difficult to detect. Older audiences are especially targeted, as they may be more likely to perceive such content as authentic and credible.

- **AI-generated videos show widespread poverty and collapse of the pension system.** A common pattern involves fabricated street interviews or emotional clips portraying pensioners in extreme financial distress. Videos with titles such as [“50 years of work for nothing”](#) or [“pensioners can't afford groceries”](#) are designed to provoke strong emotional reactions.
- **Entire AI-run channels spread fake news about pensions and social decline.** Some [online channels are fully automated](#) and continuously produce content using keywords such as [“pension crisis”](#) or [“government failure”](#) to create a constant sense of urgency and fear.
- **AI is used to manipulate elections and political opinion.** During election periods, [AI-generated or bot-amplified content is used to spread false claims about candidates, electoral fraud, or political scandals](#). These techniques are increasingly part of digital disinformation campaigns.
- **“Doctors confirm miracle cures in AI-generated health ads”**. In the health sector, deepfake videos are used to simulate medical professionals promoting false treatments. In one case, [AI-generated voiceovers were added to real doctors' footage to falsely promote beetroot capsules as cures for serious diseases](#).

## SPAIN

Most deepfakes circulating on social media feature political figures and artists, and are usually linked to current events. In this sense, each major crisis or event generates its own cycle of synthetic content. Some of the most documented examples in Spain are:



- **Synthetic images and videos of crises.** During the DANA storm that affected various parts of the country, [images and videos created with artificial intelligence](#) circulated on social media: President Pedro Sánchez was seen covered in mud with a sign that read “whoever wants help, ask for it”, and there was also a poster for a bullfighting festival created with AI; but the most viral image was that of a baby in the arms of a firefighter who had supposedly been “rescued alive in Catarroja”, when it was not a real image. During the major wildfires in California, [artificially created images and videos](#) were disseminated as if they were real recordings of the fire's advance. This also happened in the United States during the 2024 hurricanes. Supporters of Donald Trump spread AI-generated images on social media showing alleged victims of Hurricane Helene accompanied by messages critical of the Democratic government ([such as one of a girl crying with a puppy](#)) as well as narratives favorable to Trump, for example, [images depicting him wearing a life jacket amidst the floods](#).
- **Deepfakes of public figures for investment fraud.** Already mentioned in the Economy and Pensions category of this project, deepfakes of [King Felipe VI](#), [Princess Leonor](#), and other figures used to promote fraudulent cryptocurrency investment platforms.
- **AI-powered content farms.** It's not all about generative AI for images and videos; we've also seen a [rise in content farms](#), websites that mass-produce low-quality articles to reach more users and generate advertising revenue, that in recent years have begun using AI chatbots to create this content quickly and cheaply. Some of these websites masquerade as news outlets and [share false or inaccurate content](#), promoting the spread of disinformation and eroding trust in journalism.
- **Voice and identity cloning in phone calls.** [AI-powered voice cloning](#) allows for the replication of a family member's voice from just a few seconds of publicly available audio on social media, making calls from “[son/grandson in distress](#)” technologically indistinguishable from real ones. This method, documented globally, has also begun to be recorded in Spain as a variant of telephone fraud targeting elderly people.

## 2.2. Channels

### CROATIA

[The research conducted by Croatian Bureau of Statistics](#) shows that distribution of computer users across age groups has not significantly changed in 2025 compared to the previous year. The youngest population continues to lead in computer usage, with the number of users decreasing proportionally with age. In the 55-64 cohort, just over 60% of the population uses a computer, while in the 65-74 cohort, it is 34%.

The number of Internet users remains almost the same as last year, with a slight increase observed in the oldest age group. In the 55-64 cohort, 79% use the Internet, with a slight female majority, while in the 65-74 cohort, 54% use the Internet, with an even split between genders.

Comparing these results with data from the previous year, habits have not changed significantly. Individuals most frequently use the Internet for messaging (94%), gathering information about products and services (90%), reading daily newspapers and magazines (88%), using email (86%), telephony and video calls (77%), and e-banking (77%). Research results show that online shopping remains at last year's level, with 51% of Internet users purchasing goods and services online.

A portion of Internet users (32%) stated they have used generative artificial intelligence tools. These were most commonly used by the younger population aged 16 to 34, and usage declines proportionally with age, with only 15% of AI generative tool users being over the age of 55. The distribution of results by purpose shows that AI tools are very frequently used for private purposes (90%), nearly half of users employ them for educational purposes (49%), and they are least used for business purposes (33%).

According to the [Reuters Institute Digital News Report 2025 for Croatia](#), online sources and social media remain the primary gateways to news, with 77% of respondents using online platforms and 46% specifically relying on social media for their weekly news fix. While television remains a significant traditional medium with a 64% reach, print media continues its sharp decline, now reaching only 21% of the population. Among social media platforms, Facebook maintains its lead at 48% of people using it for news, followed by YouTube at 24%, while other platforms such as Instagram, TikTok and WhatsApp stay at 12-14%. The report highlights a fragile trust environment, as overall trust in news in Croatia stands at just 36%.



## GERMANY

The SIM Study (2024) and the [Reuters Digital News Report \(Germany\)](#) show that older adults increasingly combine traditional and digital media channels, while television and newspapers remain highly important. Together, the studies point to a gradual shift toward a hybrid media system in which analogue and digital sources coexist.

In terms of digital access, the SIM Study (2024) also reveals that 87% of people aged 60+ use the Internet at least occasionally, and around three quarters use smartphones on a near-daily basis. Messaging services are firmly integrated into everyday communication, with 80% using apps such as WhatsApp at least occasionally and 66% daily. Digital services are also widely used, including online shopping (67%) and online banking (60%). The Reuters Digital News Report complements this with broader findings: 67% use online news weekly, while 89% consume news at least weekly across all media, and 45% regularly access established online news providers.

Despite this, traditional media remain dominant in both studies. The SIM Study reports that more than 90% of older adults watch television almost daily, with TV remaining the most important source for world news and newspapers dominating regional information. Similarly, the Reuters report shows that 60% of adults use television weekly for news, and it remains the main news source for many older people, with newspapers still especially relevant for regional reporting. This consistency highlights the continued central role of television.

At the same time, both datasets show growing relevance of digital channels. The Reuters report finds that 42% of adults now name the Internet as their main news source, closely followed by television at 41%. Social media also plays a role, with 34% using it weekly for news, and platforms such as YouTube (21%), Facebook (16%), and WhatsApp (15%) contributing to news use. In parallel, the SIM Study shows increasing engagement with digital formats beyond news, with 63% using media libraries and 54% using video platforms such as YouTube, indicating a shift toward on-demand and video content.

Finally, the SIM Study highlights internal differences within the older population. Among those aged 85+, 67% of men but only 37% of women are online, showing a persistent gender gap. It also notes early adoption of new technologies, with 8% of people aged 60+ having tried ChatGPT and 43% having heard of it. While the digital gap is narrowing overall, age and gender differences remain visible.

Overall, both studies confirm that older adults in Germany are moving toward a hybrid media environment. Television and newspapers remain foundational, but digital media (especially the Internet, messaging services, and video platforms) are becoming increasingly integrated into everyday media and news use. The Reuters Digital News Report finds in addition to this that older adults in Germany (aged 55 and above) tend to have higher expectations of news compared to younger groups, particularly regarding diversity of perspectives, timeliness, and practical everyday relevance, with this age group showing the largest gap between expectations and perceived performance. In general, lower trust in news is strongly associated with more negative evaluations of news performance; for example, only about 33% of those with low trust say news media inform them well, and only 28% say they provide sufficient diversity of perspectives. When dealing with disinformation their response is mainly indirect through selective consumption, avoiding certain topics or sources, and generally reduced engagement. Overall, 41% of respondents report feeling overwhelmed by the sheer amount of news available, which can also contribute to withdrawal and more selective news use. Regarding disinformation, 42% of older adults (55+) report being concerned about their ability to identify it, while only 19% feel confident that they can recognize disinformation.

[The SIM Study 2024 for senior citizens](#) shows furthermore that, with regard to data quality, 57% of individuals aged 60 and older report that they are aware that some information on the Internet is incorrect, for example, due to fake news. Among them, 21% state that they have a comprehensive understanding and could explain the issue to others, while 36% consider their knowledge to be solid. In contrast, 28% assess their knowledge as limited, and 15% say they have no understanding at all.

## ITALY

According to the [most recent available data](#), more than half of older adults (aged 65 and over) use the Internet, and 47.7% use social media. The most widely used platforms are WhatsApp and Facebook, thanks to their ease of use and their role in helping people communicate with relatives and friends, followed by YouTube; while platforms such as Instagram and X are far less common among people over 65.

In general, older Italians [use social media less](#) than their European peers. More than half (6 out of 10) of households made up exclusively of older adults have Internet access, and older adults are also the age



group in which mobile phone use [increased](#) the most between 2023 and 2024. Most people over 65 [get their news](#) from television, which remains the main point of reference. [Other sources of information](#) for this segment of the population are the Internet (which rose from 30% to 37% between 2020 and 2025), radio, and print newspapers.

Overall, the Internet is the most widely used source of information, and its use is also increasing among those over 65, for whom it has become the second most commonly used medium. As for mis-/disinformation, the older population is highly vulnerable in many respects, and for this reason represents one of the groups most exposed to falling into the traps of fake news and becoming entangled in conspiracy narratives. As [some experts have pointed out](#), older adults [are more exposed](#) to false information because they are generally less media-savvy and less experienced in digital communication. In addition, a certain degree of cognitive decline can affect their ability to evaluate news critically and to distinguish reliable sources from unreliable ones: cognitive decline leads to poorer information retention and greater difficulty in processing information, making older adults more susceptible to simplistic and repetitive messages, which are typical of fake news.

## SPAIN

According to [Digital News Report Spain 2025](#), older adults stand out as the group with the highest interest in current events, while staying loyal to traditional and local media. Older adults rely more on traditional media such as television - being the primary source of news for 49% of adults over 55 - radio, and printed media. It is also stated that older adults (>65 years) are the most loyal to local news, even though interest has fallen 20 percentage points (from 62% in 2020 to 47% in 2025).

In rural contexts, where the decline of local media has augmented the “news deserts”, loyalty to traditional local media is difficult to sustain. According to Negreira-Rey et al., (2023), rural areas in Spain face a significant information gap: 77,53% of municipalities lack, creating “news deserts” that affect over 11,6 million people (24,51% of the total population in Spain). As a response to this situation, alternative news sources such as municipal apps, local government social media pages, Whatsapp groups or even podcasts have emerged to fill the void of local information channels (Galletero-Campos et al., 2024). However, this shift carries risks, as the absence of professional journalism pushes people towards social media and influencers as sources of local information (Medill, 2023), platforms where content is not subject to editorial oversight and exposure to misinformation is significantly higher.

## 2.3. Tactics and techniques

Disinformation actors across the four partner countries deploy a recurring set of tactics and techniques to craft, legitimize and amplify false narratives. Drawing on the [DISARM Red Framework](#), this section maps the main techniques identified by each partner. While the specific topics and local actors vary, the underlying mechanics show striking convergence across contexts.

**Objectives: cause harm, divide and make money.** Three main goals recur across all four countries. The first is to cause harm [T0140] and divide target groups [T0079]. For example, we have seen how content about immigration harms and degrades people, such as content portraying migrants as [scammers](#), [violent or criminals](#). In all four countries, xenophobic narratives about migrants aim to provoke fear and intergroup hostility. The second goal is to degrade the adversary [T0066], which can include the preparation and use of harmful information about the adversary’s actions or reputation: : deepfake and manipulated videos of politicians are created and shared by other politicians ([1](#), [2](#)); the Russian [Storm-1516](#) campaign used AI and chatbots to target the 2025 German federal election.

In some cases, the sole objective is financial gain [T0137], usually through scams [T0137.002]: fraudsters convince targets to pay for something without any intention of delivering it, or promise benefits, such as a fake cure, that never materialize, exploiting fear, urgency and impersonation of trusted figures. Documented cases include [investment platform scams](#), [grandparent/shock call scams](#), and [fake prize contests](#) exploiting retailer branding.

**Leveraging existing narratives and conspiracy theories.** Disinformation actors primarily rely on leveraging existing narratives [T0003] and known conspiracy theories [T0022.001]. By doing this, operators can leverage the power of the existing communities that support and propagate those theories without needing to expend resources creating new narratives or building momentum and buy in around new ones. Moreover, by rapidly connecting pre-existing narratives and conspiracies with current events, they fill information vacuums [T0102.003] with false explanations, as seen when [cloudseeding theories were linked to Zagreb storms](#). They also exploit [pre-existing social and political tensions](#) or [historical grievances](#) to gain traction and [engagement](#). Breaking news and active crises are also targeted [T0068]: the 2024 Valencia flash floods in Spain are a [documented case](#) of actors filling



information voids before verified reporting could emerge. Audience vulnerabilities are integrated into the narrative design [T0083]: disinformation relies on strong emotional triggers such as fear, anger or outrage since emotional content is shared more quickly and scrutinized less than factual information.

**Developing content: fabrication, distortion and manipulation.** In most cases, misleading content is not entirely fabricated; rather, it is based on a real event or a kernel of truth [T0042] that is then distorted [T0023], overinterpreted, or supplemented with unsubstantiated claims to construct a seemingly plausible narrative, a pattern observed in all four countries. A common form of this is reframing context [T0023.001]: for instance, authentic photos or videos of past events are often presented as if they were related to a current event; a practice that is particularly prevalent in [war](#) and [extreme weather event](#) coverage. Selective or misinterpreted statistics are used in the same way, as in [claims that historically high temperatures disprove global warming](#).

In terms of content production, most misleading material relies on simple manipulation rather than highly sophisticated techniques. Cheap fakes [T0086.002, T0087.002] stand out when it comes to manipulated visual content [T0086, T0087]. When it comes to audio-based content [T0088], AI-generated voiceovers are often [added to real videos](#) [T0088.001]. For example, scams frequently present videos that mimic television programmes or press conferences, featuring politicians, journalists or doctors apparently endorsing investment platforms or medical remedies. In many cases the video footage is real (taken from an unrelated event) but the audio is AI-generated and overlaid to put false words in the subject's mouth.

Cutting across all of this is the deliberate use of emotional triggers and linguistic framing. Content built around fear, anger or outrage is shared faster and scrutinized less than factual information, and small changes in wording lead to significantly different interpretations of the same fact, as documented with [examples around the digital euro](#) and [police crime statistics](#).

**Establishing legitimacy through fake infrastructure and personas.** Once the content is produced, a second layer of deception is needed to make it credible. The most common strategy is impersonating trusted figures or [institutions](#) [T0097], for instance, presenting unqualified individuals as “experts” to simulate scientific legitimacy (a technique documented as part of the [FLICC](#) toolkit alongside logical fallacies, impossible expectations of science, cherry-picking and conspiracy narratives). Similarly, disinformation sites impersonate legitimate media outlets [T0098.001]. These sites, sometimes motivated by [concerns other than propaganda](#), tend to carry superficial markers of authenticity (name, design, tone) but can be quickly exposed by checking ownership, publication history or advertising details.

**Microtarget.** One of the most significant shifts in disinformation over recent years is the move towards hyperpersonalisation: content is no longer broadcast uniformly but engineered to reach specific audiences with tailored messages that resonate with their existing beliefs, fears and information habits. Targeted advertisements [T0018] are purchased to deliver content precisely to defined demographic or behavioural groups; localized content [T0101] uses local language, dialects and references to blend in with genuine community news and complicate attribution. Echo chambers and filter bubbles [T0102] amplify this further: algorithms trap users in environments where they only encounter content that reinforces what they already believe, making false narratives feel like consensus. Clickbait [T0016] operates as the entry point into these loops, attention-grabbing headlines built on outrage, doubt or emotion drive the traffic and engagement that feed the targeting machinery.

**Maximize exposure.** Automated accounts and chatbots flood the information space [T0049] to massively disseminate content, which amplifies the illusory truth effect: the more frequently people encounter a claim, the more likely they are to perceive it as true regardless of its accuracy, as documented with [AI-driven dissemination networks](#). The Storm-1516 campaign illustrates how these techniques combine in practice: false claims were seeded through [fake news articles and AI-generated deepfakes](#), then amplified by influencers and bot networks with broad reach to target the 2025 German federal election.



### 3. State-of-the-art media literacy review

Media and information literacy (MIL) has been defined by the [European Media Freedom Act \(EMFA\)](#) as “skills, knowledge and understanding which allow citizens to use media effectively and safely and which are not limited to learning about tools and technologies but aim to equip citizens with the critical thinking skills required to exercise judgment, analyse complex realities and recognize the difference between opinion and fact.” This broad framing has informed a growing body of policy and practice in Europe –the concept is a key element of the [European Democracy Action Plan \(EDAP\)](#), the [Media and Audiovisual Action Plan \(MAAP\)](#), and the [Digital Education Action Plan](#)–, but the translation of that policy intent into provision specifically tailored to older adults and rural communities remains limited. The Nikoltchev (2016) mapping of media literacy practices across the EU found that only 7 of the 145 case study projects analysed specifically focused on older people. More recently, a benchmarking review of media literacy education for seniors across Europe found a significant lack of both programs and research specifically designed for this age group, with the remaining field predominantly oriented towards younger populations (Rasi-Heikkinen & Luksua, 2023). This pattern was confirmed by the most recent EU-wide mapping of media literacy initiatives (European Commission, 2025), which highlights that, although older citizens are beginning to receive more attention, they have historically been an overlooked stakeholder group.

This section presents the state of that provision at European level, focusing particularly on the consortium countries. The review covers recent projects, programmes, workshops, online courses, apps and printed guides. Findings are organized by country, followed by a cross-national identification of the main gaps.

Two intersecting conditions define the population of interest. The first is age, adults aged 60 and over constitute a demographic whose relationship with digital media and online information environments is shaped by lower average digital fluency, distinct information habits and specific vulnerability profiles (Lyons, 2023; Moore & Hancock, 2022). The second is rurality, residence in areas with lower population density, more limited connectivity infrastructure and reduced access to organized educational provision. Older adults in rural settings sit at the intersection of both sets of constraints, forming the least served segment of the population for media literacy education purposes (Council of Europe, 2022; Yun Lee et al., 2020).

#### 3.1. Older citizens vulnerabilities

The vulnerability of older adults to disinformation is not an inevitable consequence of biological cognitive decline, but rather stems from a complex intersection of social, technological, and digital inequality factors. Recent research demonstrates that, when controlling for social media skills and frequency of Internet use, chronological age ceases to be a statistically significant predictor of the ability to respond to misinformation, thus positioning digital inequality (and not aging) as one of the key explanatory mechanisms (Baines, Hargittai & Palfrey, 2025). Although changes in source memory can make it difficult to identify the original source of information, the semantic knowledge accumulated over decades allows older adults to effectively evaluate claims, provided they possess the necessary media literacy skills (Brashier & Schacter, 2020). However, as they are largely “digital immigrants,” this group often lacks the technical literacy to detect manipulated content, such as that generated by artificial intelligence, where their ability to distinguish between fact and fiction is barely better than chance (Carroll, 2025; Zhou et al, 2023).

This skills gap makes older adults a critical vector of dissemination. For example, Guess et al. (2019) found that Facebook users over 65 share almost seven times more fake news than the 18-29 age group, and more than twice as many as those in the second-oldest age group (45-64 years). Beyond a lack of technical expertise, this behavior is driven by an increase in partisan identity with age, which can cloud critical judgment and foster a visceral reaction to politically congruent information shared without rigorous verification standards (Ramos & Van Boven, 2025). Added to this is a pattern of interpersonal trust transferred from traditional media to channels such as WhatsApp; in these environments, older people validate information not for its intrinsic truth, but for the emotional closeness with the contact who forwards it (Sádaba et al., 2022).

This vulnerability reaches its most critical point in rural areas, where a situation of “double exclusion” arises due to age and geography. In small municipalities, the lack of infrastructure and services, coupled with depopulation, generates feelings of loneliness and abandonment that increase dependence on digital networks for social contact, exposing them to greater information risks without in-person support networks (Hermans, 2022). Moreover, the absence of educational dissemination networks in rural areas, equivalent to schools for young people, leaves older adults in these areas as the segment least served by literacy policies (Hermans, 2022). Following these ideas, a longitudinal study by Bierwaczzonek et al. (2024) tracking more than 2,000 Norwegians for nearly three decades



found that people reporting high levels of loneliness in adolescence, and those whose loneliness increases over the course of their lives, are significantly more likely to adhere to conspiratorial worldviews in adulthood. Rural social isolation, structurally more prevalent among older adults in dispersed communities, thus constitutes a risk factor not only for exposure to disinformation but also for the active adoption of conspiratorial belief systems.

On the other hand, in the healthcare field, many older adults apply the principle of "better safe than sorry," giving credence to rumors about nonexistent risks to avoid potential dangers, which makes them vulnerable to fraud and pseudoscientific remedies (Zhou et al, [2023](#)). This results in genuine feelings of distress, anxiety, and anger. For example, according to a study conducted on a national sample of people over 60 in Spain, 40.6% of respondents reported these feelings regarding health misinformation (Communication Study, [2023](#)).

Finally, the lack of effective intervention frameworks is exacerbated by the historical "statistical invisibility" of some age groups, such as those over 74, in official surveys (Hermans, 2022). Excluded from key studies on digital skills, this group lacks an empirical basis to support the design of public policies and specific initiatives. This lack of data delays the creation of national strategies to mitigate risks in a population that, paradoxically, is among the most active in democratic processes (Moore & Hancock, [2022](#)).

### 3.2. What works: evidence on intervention effectiveness

The evidence base on media literacy interventions specifically for older adults remains limited but is growing. Moore and Hancock ([2022](#)) tested a one-hour self-directed digital literacy module (MediaWise for Seniors) and found that participants aged 67+ in the treatment group improved fake news discernment from 64% to 85% accuracy, compared with 55% to 57% in the control group. The format, deliverable via familiar platforms, produced a 21 percentage point improvement in discernment, suggesting that modest, well-designed interventions can generate meaningful gains even in this underserved population. Supporting this, a meta-analysis of seven studies found that digital health literacy (DHL) interventions significantly improve knowledge and self-efficacy among older adults, directly enhancing their ability to judge the veracity of online content and their resilience to health-related misinformation (Dong et al., [2023](#)). However, the analysis notes that while theoretical understanding and confidence increase, improving practical technical skills remains a greater challenge, especially in interventions shorter than four weeks or those lacking face-to-face instruction (Dong et al., 2023). Complementing these findings, a rapid review of 21 studies reported "consistently positive results" in digital literacy and confidence across various groups, specifically noting improvements among rural residents and socially isolated individuals (Wale et al., [2025](#)). In the specific context of Spain, research on a 10-day WhatsApp-based course demonstrated that delivering content through familiar, low-friction platforms is an efficient tool for acquiring knowledge to fight disinformation (Sádaba et al., 2022). Nevertheless, this study also warned of a potential "overconfidence effect", where participants feel more secure in their judgments post-training even when their answers are incorrect, particularly when identifying false news as such, a task that requires more expertise than verifying true information.

Finally, evidence suggests that for rural populations (who often lack formal educational dissemination networks) the most effective interventions are those that transcend mere technical instruction. Successful models increasingly rely on peer-to-peer learning and a "warm expert" approach, which fosters a respectful atmosphere and provides the emotional and social support necessary for older adults to transition from passive recipients to active, critical digital citizens (Rasi-Heikkinen & Luksua, [2023](#); Hermans, [2022](#)).

### 3.3. The European landscape

The EU has progressively strengthened its media literacy policy framework. The revised [Audiovisual Media Services Directive \(AVMSD\)](#) requires Member States to promote media literacy skills and to report on their efforts every three years (European Commission, [n.d.](#)). The November 2025 [Communication on the European Democracy Shield](#) explicitly positions media literacy as essential to democratic resilience, announcing a new Media Resilience programme targeting all age groups (youth, adults, seniors) and both urban and rural areas. The OECD 2024 report *Facts not Fakes* similarly calls for "fostering societal resilience to disinformation," which involves empowering individuals to develop critical thinking skills, recognize and combat disinformation, as well as mobilising all sectors of society to develop comprehensive and evidence-based policies in support of information integrity (OCDE, [2024](#)).

At country level, the Open Society Institute Expanded Media Literacy Index ([2026](#)) –which measures resilience to disinformation in 47 states based on press freedom, education, trust, and e-participation– places Germany (cluster 1, score 62), Spain and Italy (cluster 2, 57 and 51, respectively), and Croatia



(cluster 3, score 47) in differentiated positions. It is worth noting that research emphasizes that those over 65 remain a group at risk of being underserved by media literacy initiatives, and there is a persistent lack of national programs and strategies specifically designed for this age group (Hermans, 2022). On Twitter, Grinberg et al., (2019) found that a large part of the sharing of misinformation was made up of users over 50 years. These aggregate patterns, however, do not reflect a generalized cognitive deficit. A study published in 2025 based on survey data from 2,000 adults aged 60+ found that lower social media skills, rather than age *per se*, were the primary predictor of reduced capacity to respond to disinformation, suggesting that **digital inequality rather than cognitive decline** is the key mechanism, as age became non-significant once skills and Internet experience were controlled (Baines, Hargittai & Palfrey, 2025).

## CROATIA

The media literacy education landscape for older adults in Croatia can be described as emerging and moderately developed, but still fragmented and largely project-based rather than systemic. On one hand, there is a growing number of initiatives, especially in recent years. However, despite this activity, the field remains relatively underdeveloped in structural terms. Most initiatives are **short-term, project-based and externally funded** (often EU-funded), **limited in scale** (e.g. small groups of participants in care homes), **not embedded in a national lifelong learning system** for older adults. Overall, Croatia has initiatives that are developing the ecosystem, with diverse actors involved, yet lacking long-term coordination, scalability and systemic integration into public education policies for older adults.

The empirical evidence from Croatian projects offers direct insight into the vulnerability profile of the target population. Online Seniori (DKMK) [found](#) that workshop participants in retirement homes were unable to recognize modern fraud formats including misleading advertisements, suspicious phone calls and deepfake content. Methodologically, the project is tailored to the needs of older learners, using a practical, step-by-step approach, repetition, and visual aids. Educational materials such as printed guides and reminders are provided to support long-term learning outcomes. The “[Guiding Silver Surfers Through New Media](#)” project (co-financed by the Croatian Agency for Electronic Media, 2023) produced what is documented as one of the first Croatian guidebooks designed specifically for older adults on navigating online fraud and disinformation.

[SMART AGE](#) (POU Čakovec) adapts the DigComp 3.0 framework to develop a micro-credential curriculum and MOOC for rural older adults, covering AI literacy, misinformation, AI-generated content, algorithmic awareness, and psychological resilience against online scams. We believe it is the most promising because it moves beyond isolated training sessions and builds a transferable, EU-aligned education system for senior digital and media literacy, including emerging challenges like AI and disinformation. It also stands out because it brings together multiple European partners, which increases its credibility and allows for the exchange of best practices across countries. Unlike many smaller, local initiatives, SMART AGE has the potential to be sustained and adapted over time, making it more impactful in addressing long-term digital exclusion among older adults. Other initiatives, such as [BOOMER](#) (University of Dubrovnik et al., 2024) provides freely available materials on digital skills through its Virtual Corner platform. [DigiLOOP](#) (CTK Rijeka, 2025) develops a tailored digital skills curriculum for older adults across Croatia, Lithuania, Poland and Slovenia, combining trainer training, peer mentoring and an online learning community to foster independent digital participation among 200+ seniors. “[Hodalica kroz lažne vijesti](#)” (Tonino Picula / Medijska pismenost, 2021) is a short-term awareness initiative targeting adults 65+ that delivered in-person fake news literacy workshops in 6 cities, complemented by educational videos and a social media campaign focused on disinformation recognition, fact-checking and critical evaluation of online content.

## ITALY

Due to the vulnerability of older adults, civil society and the academic ecosystem have responded with various initiatives, although few are specifically aimed at older adults in rural areas, and those that are in operation are not adequately designed to address media literacy; most focus solely on improving digital and computer skills, and they are not sufficiently promoted. Moreover, there are multiple valuable online courses and initiatives that risk not reaching senior citizens in rural communities.

The fact-checking organization Pagella Politica and Facta's [DORA](#) platform (2026) provides on-demand video courses on disinformation and fact-checking methodology for the general public. Politecnico di Milano's [MOOC on fact-checking](#) (2025) offers a well-structured three-week curriculum on disinformation and AI-assisted fact-checking, also for the general public. Scuola Futura MOOC “[New media e giornalismo digitale](#)” (2026) equips educators with AI literacy and fact-checking tools.



Among initiatives directly targeting older adults, [Evoluzione Digitale](#) (Unitre Reggio Emilia) delivers 15-hour in-person digital skills courses for older adults. Universities of the Third Age ([UNITRE](#)) are cultural associations, widespread throughout all Italian territory, dedicated to promoting lifelong learning and social inclusion for senior citizens. They provide a wide range of accessible, non-degree courses tailored to the interests of retirees. By offering a stimulating environment, they play a crucial role in fostering active aging, combating social isolation, and keeping older adults engaged in their communities. [MyNino](#) (Biblioteche Senza Frontiere Italia et al., Google.org Impact Challenge 2023), which aims to combat online disinformation among older adults, developed an easily accessible app (to be launched in 2026) aiming at fostering digital skills and media literacy among adults over 65. The app uses AI to answer questions about digital and online tools and offers interactive, gamified quizzes to promote learning. Although the app is still under development, the initiative is promising. Its primary purposes include preventing digital fraud and empowering older adults to independently and safely access essential administrative, financial, healthcare, and cultural services. When launched, it may become a fundamental tool for digital literacy for the target group.

## GERMANY

The [Council of Europe Digital Literacy for Seniors](#) report notes that Germany's BAGSO (National Association of Senior Citizens' Organizations) has repeatedly called for a more systematic governmental approach to older adults and digitalization, expressing concern that existing provision is insufficiently comprehensive. While it is true that adult education in Germany already offers a variety of programs for older people, particularly in digital literacy and, to some extent, disinformation, significant shortcomings remain, especially in effectively reaching senior populations. Many initiatives tend to stop at explaining how digital media functions, without addressing deeper competencies such as critically assessing information or navigating mis-/disinformation in everyday contexts. In addition, the landscape is highly fragmented: numerous associations, adult education centers, and publicly funded initiatives provide valuable but often isolated programs and mainly in urban areas. There is a lack of sustained, follow-up offerings that would enable long-term learning and continuous support for older adults and rural areas. Furthermore, key environments where older people spend much of their time (such as care homes or faith-based community organizations) are rarely integrated into these educational efforts, limiting both access and impact.

[Medien|66](#) is a particularly promising initiative and model, as it addresses several aspects that are often overlooked by comparable programs. It explicitly targets older adults and seniors in rural areas (primarily adults 60+), organizes in-person workshops in rural areas, and holds them in locations that are easily accessible and familiar to this audience. The sessions are designed as open, low-threshold formats and take place on a regular basis, enabling continuity and the potential for long-term engagement. However, a key limitation is the initiative's primary focus on general topics related to the use of digital devices. While this is valuable, the existing structure and outreach developed could be further leveraged to address more specific topics such as mis-/disinformation. Integrating content on disinformation into these regular, accessible formats would significantly strengthen the initiative's overall impact.

In the disinformation-specific domain, [media lab nord](#) provides practical example-based in-person sessions focused specifically on fake news identification. "[Gut gewappnet gegen Betrug](#)" (VHS im Dorfschultenhof) offers fraud prevention training led by a retired police officer, an instance of the trusted community figure as facilitator model, grounded in real-life examples (phishing, fake tech support, the "Enkeltrick"). Using real-life examples, participants learn to identify suspicious situations and apply simple, effective rules to protect themselves. The program is designed for a broad audience and requires no prior technical knowledge. The "[Aktiv mit Medien](#)" [programme](#) (mitmedien e.V.) trains volunteers and professionals as media mentors who support older adults in a cascaded Train-the-Trainer model, with advanced modules on misinformation available post-certification. "[Meine Meinung, meine Wahl](#)" (LFK / Silver Tipps, MKFS, 2026) addresses online opinion formation and disinformation in electoral contexts. [CORRECTIV](#) operates two complementary tools, the [Reporterfabrik](#) (online journalism academy) and the [Faktenforum](#), a participatory fact-checking platform. Among the in-person workshops, the [14h Deutscher Seniorentag](#) (BAGSO, Mannheim in 2025) offered a wide range of activities, discussions, and workshops aimed at older adults on AI, health and disinformation.

## SPAIN

Spain occupies an intermediate position in the European media literacy landscape; it has developed methodologically ambitious and internationally recognized initiatives, but the sector remains dependent on a small number of leading organizations. One of the most visible contributions internationally is [BuloBús](#) (Fundación Maldita.es, 2023), a media literacy minibus that visited 20 rural Spanish municipalities between April and May 2023, delivering in-person workshops, distributing



Co-funded by  
the European Union

printed materials, and offering expert support aimed at older adults and young people. By going to where the audience was, rather than requiring them to seek out resources, BuloBús addressed the structural exclusion that renders most online or urban programs irrelevant to this population. To our knowledge, it remains the only documented example in Southern Europe of a sustained mobile media literacy program targeting this population.

The [MediaWise](#) program (Poynter/Newtral/Meta, 2022–2023) offered a free microlearning course via WhatsApp with five-minute daily sessions on identifying disinformation. A study on its effectiveness by Sádaba, Salaverría, and Zabala (2022) concludes that the training was an efficient tool for improving the detection of true news, with the experimental group outperforming the control group by up to 16.2 percentage points in specific categories. It was also effective in expanding digital literacy, reducing the number of participants who were unfamiliar with advanced concepts like “lateral reading” or “inverse image search”. However, it did not show a significant improvement in the specific ability to identify false information; accuracy was very similar in some cases. The researchers suggest that future initiatives should adopt simpler, more user-friendly formats to ensure higher completion rates among this specific population. The EU-cofunded [Level Up](#) project (Maldita.es Foundation, 2024–2026) expands on this pedagogical approach through a multilingual educational game and training resources covering disinformation, AI, and online scams.

More recently, [INMERS – International Media Literacy – Empowered Rural Seniors](#) (2026–2028) represents the most directly comparable initiative to POP at national level. Coordinated by the Gobierno de Navarra in collaboration with partners from Finland and Romania, INMERS targets adults 65+ in rural areas, combining media literacy training and workshops with disinformation awareness to reduce digital exclusion.

At the local level, [Prensa sin Edad](#) (Asociación de la Prensa de Málaga) stands out for its continuity. Since 2021, it has run practical workshops aimed at older adults and led by journalists on disinformation, social media, artificial intelligence and cybersecurity across 26 municipalities in the province of Málaga.

Other initiatives are expanding the portfolio to include inclusion and digital skills. [Digital Competencies +60](#) (Red.es / La Caixa Foundation, 2024–2025) operates nationwide, with over [15,000 participants](#) in face-to-face workshops on Internet use, social media, and preventing online scams. [PIDA](#) (AlfabetICs60, 2023–2026) creates physical digital inclusion points for older adults. Both focus on acquiring digital skills, rather than specifically on media literacy or recognising disinformation, although they contribute to creating the conditions conducive to media literacy education.

## OTHER EUROPEAN-LEVEL INITIATIVES

The national landscapes sit within a broader European project ecosystem, most of it funded through Creative Europe and Erasmus+. Together these initiatives reveal both the scale of European investment in the field and its limitations in reaching rural older adults. Among the most directly relevant European initiatives in terms of thematic scope and audience are:

- [MELISE – Media Literacy for Seniors](#) (2023–2026), whose multilingual MOOC “Network and Realities: Media Literacy for Seniors” was launched in October 2025 in five languages (Spanish, English, Italian, Portuguese, German), covering disinformation, fact-checking, AI and audiovisual manipulation. Alongside the senior course, the project also offers a parallel training program for media literacy educators and professionals that combines online courses with face-to-face workshops. It also addresses online scam prevention and digital citizenship, and maintains a Community of Practice and podcast channel to promote ongoing knowledge exchange.
- [SUM – Seniors United Against Misinformation](#) (2022–2024) employed a peer-to-peer learning strategy, training volunteers aged 60+ to facilitate media literacy workshops in their communities across Spain, Finland, and Italy. The project’s benchmarking report highlights that older adults are often marginalized in the digital sphere and lack the formal educational networks available to younger generations. To overcome this, the SUM model relies on building collaborative networks with civil society organizations, such as senior associations and community centers, to recruit volunteers and reach seniors who are otherwise excluded from lifelong learning opportunities. While the project demonstrates impressive linguistic diversity and broad European reach, its focus on training professionals overlooks the needs of independent older adults who do not regularly interact with social service providers.



- [DISERA – Disinformation of Seniors in Rural Areas](#) is the European-funded project most explicitly aligned with the rural dimension of this review, operating across Italy, Ireland, Slovakia and North Macedonia to enhance media literacy among older adults in rural communities through radio broadcasting courses and training sessions held in local community spaces. By combining awareness-raising on disinformation with digital skills development and critical thinking, the project seeks to bridge the rural-urban divide and foster intergenerational inclusion. Its in-person, locally anchored model directly addresses rural accessibility. However, the project's reliance on localized, in-person training may limit scalability and sustainability, particularly in rural areas with poor digital infrastructure. Additionally, challenges related to digital accessibility, intergenerational engagement, and the lack of standardized evaluation tools could affect its long-term effectiveness and replicability.
- [DIGITOL – Digital Inclusion for Older People - Intergenerational synergies for the active participation in society](#) (2020–2022), funded by the EU's Erasmus+ programme, sought to combat hate speech, stigmatization, and disinformation by enhancing the digital skills and critical thinking of older adults through a cross-border, intergenerational approach. However, its scalability is limited, with no downloadable workshop templates or standardized materials, and its e-learning courses are only available in Italian, Croatian, and German, excluding non-speakers and lacking an English option. Additionally, traditional e-learning models often suffer from high dropout rates, highlighting the need for more engaging formats.

Further relevant European initiatives include [E-engAGED](#) (Athens Lifelong Learning Institute, 2023–2026), which pairs young volunteers (18–25) as media literacy trainers with older adults (50+) across Belgium, France, Greece and Italy, combining transnational training events with local intergenerational workshops on disinformation, digital citizenship and civic engagement; [Information Matters](#) (Erasmus+, 2022–2024), which developed 10 interactive educational modules and training resources addressing disinformation, misinformation and media literacy for adults 55+ in Bulgaria, Romania and Austria, alongside a parallel online training course for adult educators available in English, Bulgarian, German and Romanian; [REMEDIS](#) (Horizon Europe, 2022–2025), producing an open-access evaluation toolkit and evidence-based guidelines for MIL and digital skills interventions with vulnerable groups; and [CheckMate](#) (Erasmus+), which created immersive metaverse sessions, a dedicated web extension for assessing website reliability, and an e-training course available in six languages (English, German, Italian, Greek, French, and Lithuanian).

### 3.3. Cross-national patterns and gaps

Across the four countries, the initiatives mapped share a common profile: provision is predominantly delivered through time-limited, externally funded projects (most often EU grants) operating in a decentralized manner and without integration into national lifelong learning systems. Where programmes exist, they tend to concentrate in urban or institutional settings, with rural communities remaining largely outside their reach. Content usually focuses on general digital skills, such as device use, platform navigation, and online services, than on critical information evaluation, source analysis, or recognizing manipulation techniques. These patterns appear with enough consistency across all four contexts to suggest that they reflect structural features of the field rather than country-specific circumstances, though the relatively small number of initiatives mapped here warrants caution about the generalisability of these observations.

On the other hand, we have also observed a set of similar delivery formats repeated in all four contexts: in-person workshops in institutional settings; online courses and MOOCs for digitally connected audiences; Train-the-Trainer models; and printed materials as accessible offline alternatives. What seems more absent is an approach that combines direct physical presence in rural communities with replicable formats and trained local facilitators. Our review also points to a set of enabling conditions associated with more effective reach, including traveling to where the audience already gathers rather than requiring self-selection; formats that are accessible without prior digital fluency or reliable connectivity; and the involvement of trusted local figures (such as caretakers, community association leaders, and local volunteers) who can bridge both access and credibility gaps.

**The shortcomings identified in the four countries are set out below:**

- Very few initiatives have offered sustained rural coverage combining media literacy and mis-/disinformation content with face-to-face community access. When rural outreach programs exist, they tend to focus on general digital skills rather than manipulation recognition or critical thinking; while those that do focus on mis-/disinformation are generally disseminated in urban or institutional settings and directed predominantly at younger audiences.



- When existing initiatives do address disinformation, they tend to do so in broad terms rather than focusing on the forms most prevalent and consequential for older adults: health misinformation, online scams, climate disinformation, conspiracy narratives and AI-generated content including deepfakes and voice cloning. Emerging initiatives such as Level Up, address some of these areas thematically, but are either not designed for audiences with limited digital connectivity or have not yet demonstrated reach in rural settings.
- There is also a failure to reach older adults through their everyday environments rather than through adult education structures that require prior interest and active self-selection. The local actors best positioned to bridge this gap (carers, community association leaders, volunteers) are largely absent from delivery and outreach efforts.
- Programmes are also scattered, poorly promoted, and unknown to large segments of the target audience, making them difficult to find for those not already connected to formal education structures. There is no national directory or coordinating network.
- The vast majority of the initiatives identified are EU project grants with limited timeframes (Erasmus+, Creative Europe, grants from national media authorities) without pathways to permanent public offering or integration into lifelong learning systems.
- Short-term, single-session workshops (one of the dominant delivery modes) do not generate sustained skill development because there is no follow-up training or long-term curriculum to reinforce learning. Many initiatives rely heavily on digital access, which can exclude those with limited technical skills or poor internet connectivity.
- Where initiatives do reach rural communities, they tend to depend on expert facilitators. Freely available resources exist in some cases, but standardized, downloadable materials that would allow local educators, community workers or volunteers to replicate delivery independently and consistently are absent at scale.
- Few initiatives are specifically designed for adults aged 75 and over, who tend to be the most neglected within an already underserved target population.
- Interactive and gamified formats for media literacy education, while increasingly used with younger audiences, remain largely absent from provision targeting older adults and rural communities.
- Publicly available impact evaluations are rare across the entire landscape reviewed, making it difficult to assess what works for this population and constraining evidence-based programme development.



## 4. Survey

This section presents the findings of the cross-national survey on disinformation perceptions conducted across the four countries participating in the project. The analysis covers key aspects such as media consumption habits, exposure to false content or self-perception identifying disinformation, among others, in order to provide a comprehensive picture of how populations encounter, process and act against disinformation.

The survey was conducted in Croatia, Germany, Italy and Spain among interest groups. The independent administration of this survey resulted in separate datasets with different response formats that needed to be normalized prior to analysis. While the survey was designed as a stable questionnaire, each participating country independently translated and adapted the response options, resulting in terminological and categorical variation across the data that was provided by each country. In order to address this issue, a variable selection and normalization process was carried out before merging the data, comparing the response categories of each country and developing standardized labels.

Data is visualized using chart types generated with Excel. Data obtained from single-response questions, in which respondents selected exactly one option from a mutually exclusive set are represented as pie charts. Representing multiple-response answers as pie charts would provide a distorted picture of the frequency distribution, since percentages are calculated relative to the total number of answers and not of respondents. Bar charts are therefore used for this type of data and the sum of percentages across response categories can exceed 100%. In all charts, the variable displayed is the relative frequency, calculated with the total number of respondents in the considered group.

Although a general analysis of the full sample is provided, the findings are interpreted with particular focus on respondents aged 55 or older who have declared residing in municipalities with a population of 10.000 inhabitants or less, as it is considered that this combination increases the likelihood of targeting older adults living in rural areas. This subgroup has 230 participants (22.9% of the total sample) and will be referred to hereafter as the *target group*.

### 4.1. Sample description

In first place, an overview of the survey participants is provided, characterizing the sample across four sociodemographic dimensions: age, gender, municipality size, country and education level. These variables establish the demographic profile of the sample, and constitute the basis of the cross-tabulations presented in subsequent sections.

This sample comprised 1001 respondents across four countries (Croatia, Germany, Italy and Spain), with national sample sizes ranging from 116 to 521. Figures 1-5 present the characteristics of the sample.

**Figure 1. Education level**

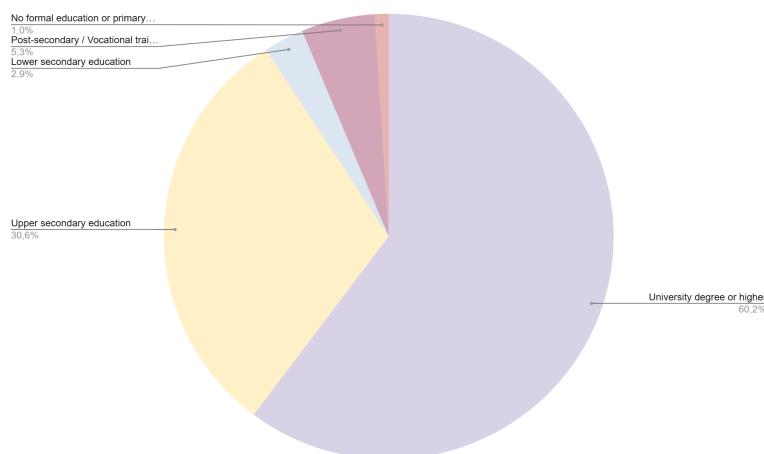
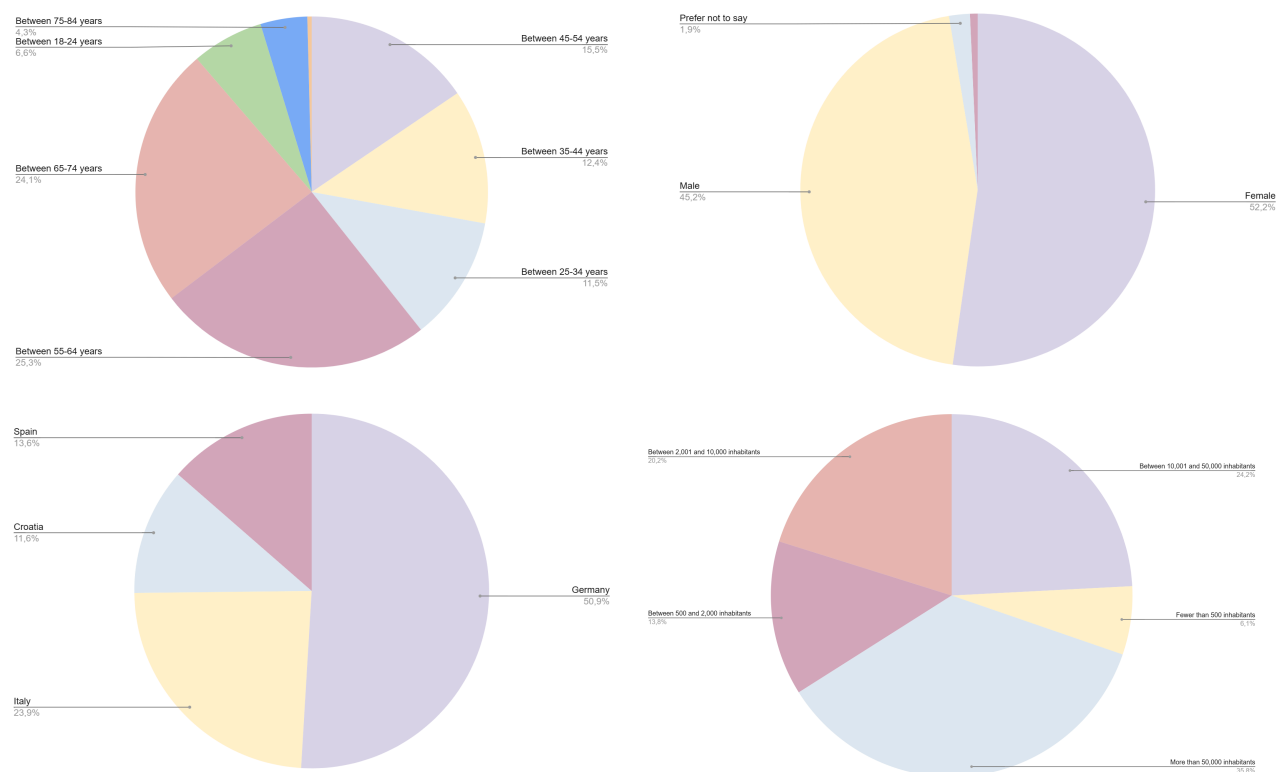


**Figure 2.** A) Age group. B) Gender. C) Country. D) Municipality size.

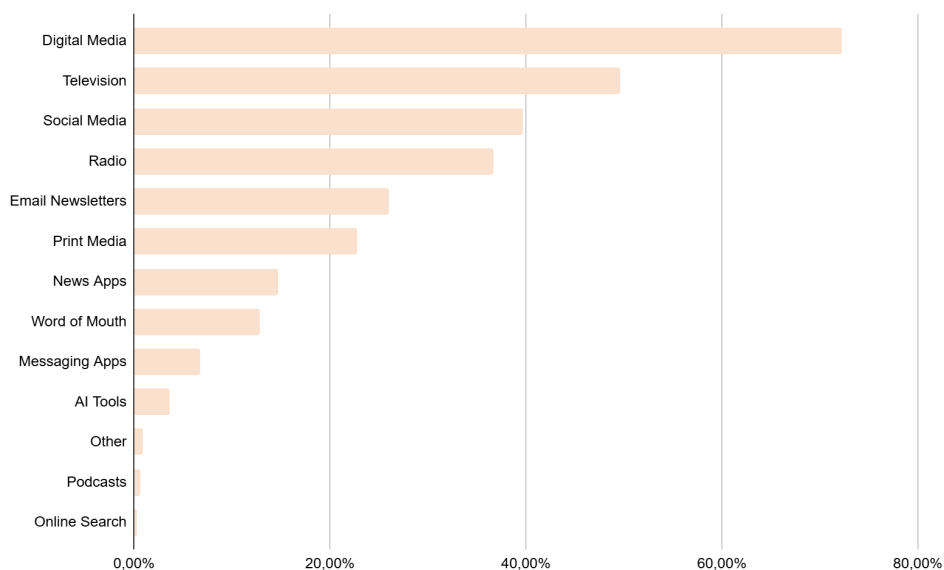
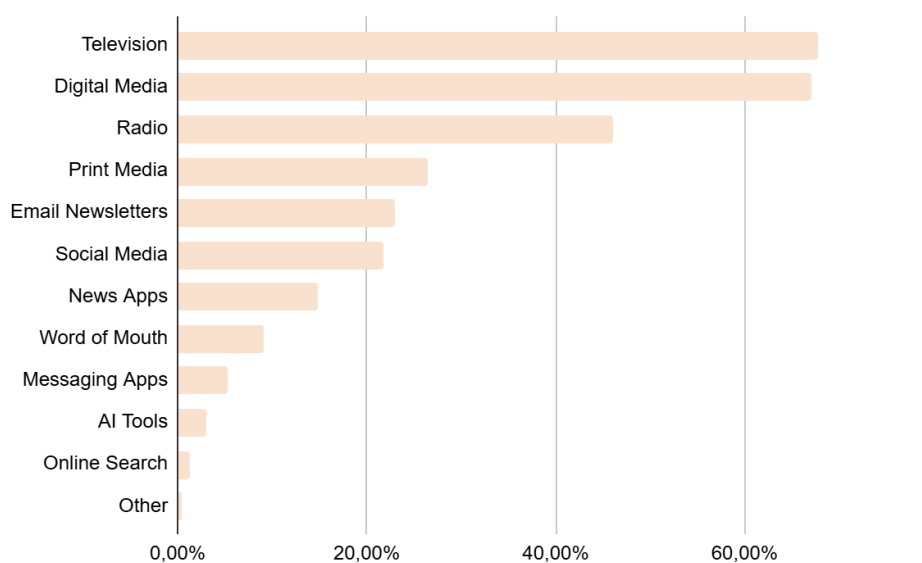
## 4.2. Preferred channels

Participants were asked to select the channels through which they prefer to stay informed. As shown in Figure 3, **digital media** constitute the most frequently used source of news across all municipality sizes, being selected by 72.2% of the respondents, more than 20 percentage points ahead of Television (49.7%), which is the second preferred channel. **Social media** is the third most cited channel (39.7%) followed closely by **radio** (36.7%).

Notable differences emerge when focusing on the target group. **Television** and **digital media** remain as the most cited channels (67.8% and 67%, respectively), while **social media** drops to sixth position (21.7%). **Radio** ranks as the third most used channel (46.1%), while **printed media** (which occupied sixth place in the aggregate data ranking) rises to fourth position (26.5%).

As it can be observed, there exists a gap of nearly 18 percentage points on the Social Media usage between the general sample and the target group, suggesting that older adults in rural areas engage less with platforms where disinformation spreads more easily. The strong use of radio, print media and television points to a **stronger reliance on channels with professional journalists involved**.

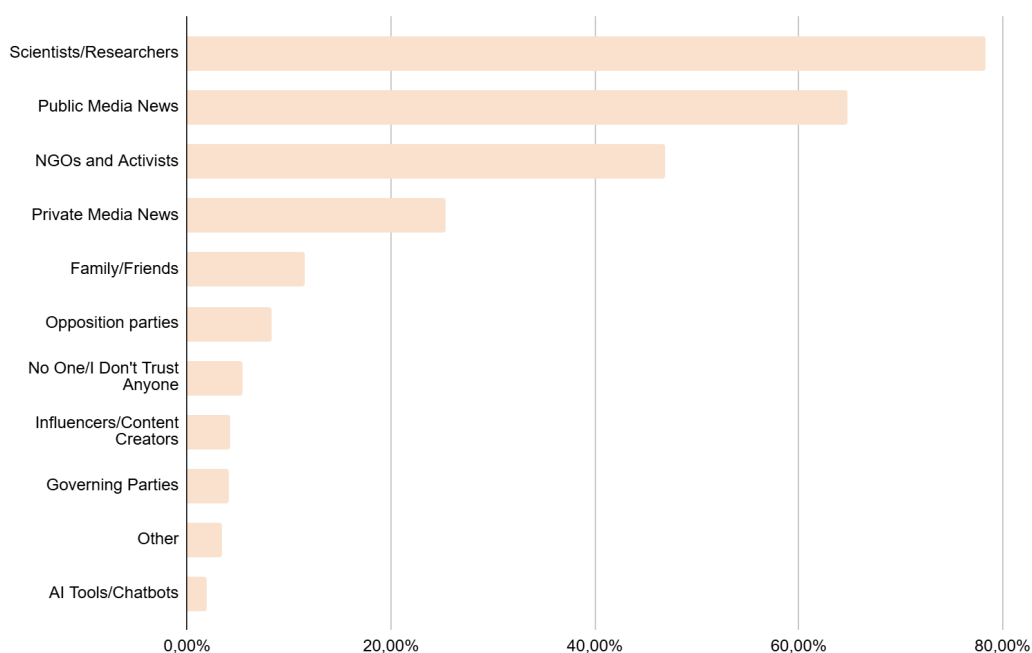
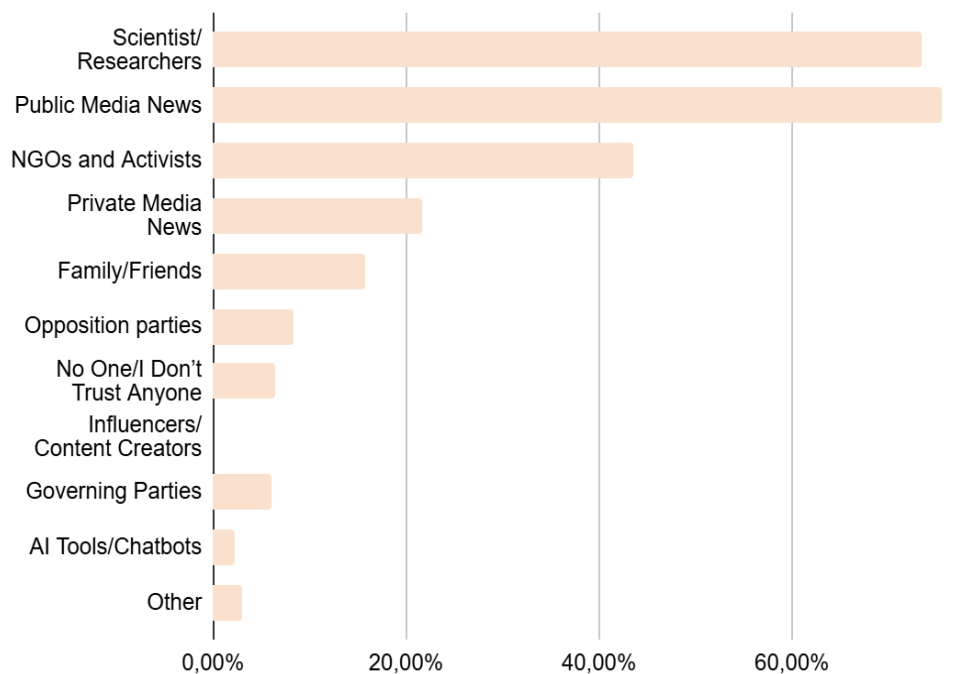


**Figure 3. Channels (general)****Figure 4. Channels (target group)**

### 4.3. Trusted sources

Participants were asked to select which sources they find reliable for staying informed about public debate. Results show that **scientist/researchers** (78.31%), **public media news** (64.84%) and NGOs and **activists** (46.85%) are the most trusted sources among the participants.



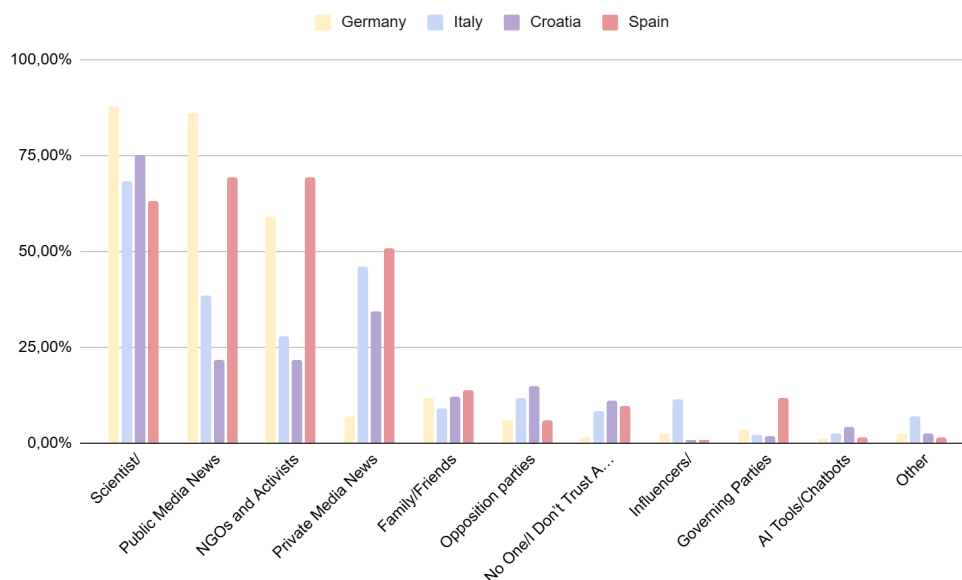
**Figure 5.** Trusted sources (general)**Figure 6.** Trusted sources (target group)

When focusing on the target group, the overall distribution of the trusted sources is kept, with **public media news** (75.7%) and **scientists/researchers** (73.5%) being the most trusted sources. However, differences at the country level become more relevant. Regarding trust in **scientists/researchers** (the most cited source overall) German respondents report higher levels of trust (87.8%) than their Italian (68.2%) and Spanish (63.2%) counterparts. In terms of the second most trusted source, Italian and Croatian respondents favour **private media news** (46% and 34.5%, respectively), whereas Spanish



and German respondents place greater trust in **public media news** (69.1% and 85.9%, respectively). Germany stands out for its low trust in **private media news** (6.9%), in contrast with the other countries, where percentages range between 34.5% and 50.70%. Regarding institutional sources, Spanish respondents show comparatively higher trust in **governing parties** (11.8%), while Italy and Croatia report greater trust in **opposition parties** (11.7% and 14.7%, respectively). Finally, it is worth noting that 11.3% of Italian participants cite **influencers/content creators** as a trusted source, a figure that stands out against the other countries surveyed, where percentages range between 0,7% and 2,5%.

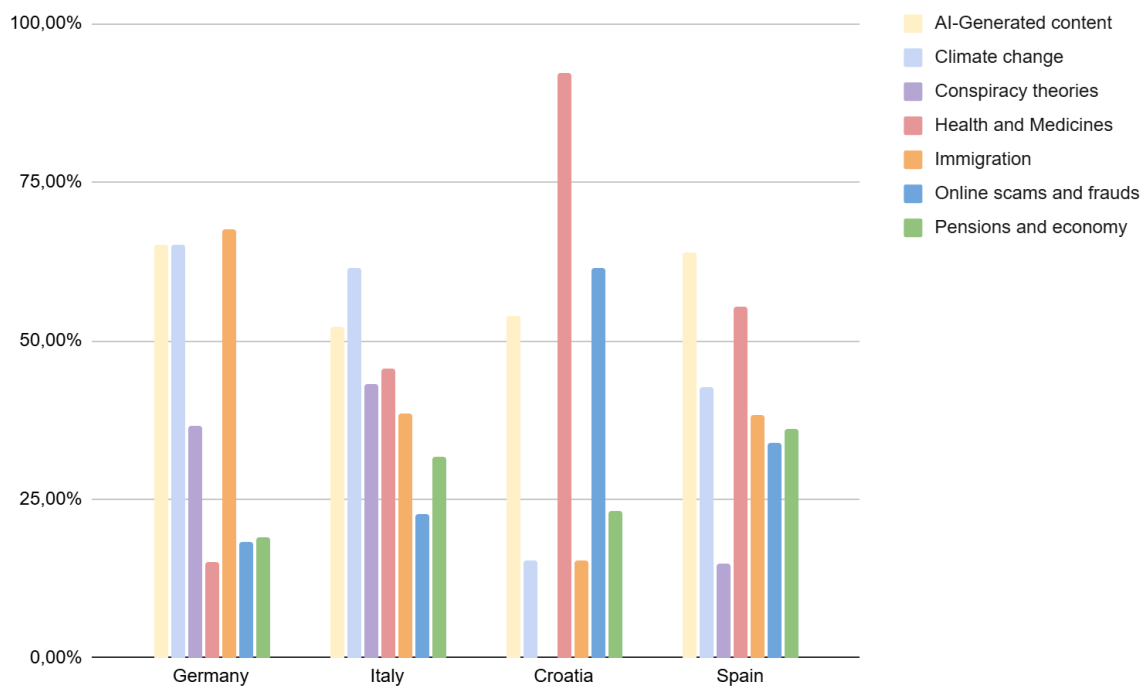
**Figure 7.** Trusted sources by countries (general)



It is worth highlighting that 6.5% of the target group, and 5.2% of the general sample, declared that they **do not trust anyone**.

#### 4.4. Disinformation concerns

Results show that **generative AI** represents the most consistent disinformation concern among all countries, being one of the main topics of concern in all of them, exceeding the 50% of participants who are concerned about this topic in all the countries and, in the case of Spain, it is the main concern. **Immigration** and **climate change** feature most notably in Germany, where both topics were selected by approximately 65% of respondents in the target group. Croatia is presented as an exception, with **health and medicines** and online **scams and frauds** as main concerns among respondents in the target group in this country. It is worth mentioning that disinformation concerns are rarely limited to a single topic: in the target group, only 2.6% of respondents declared being concerned about one topic.

**Figure 8.** Disinformation concerns by countries (target group)

Focusing on this target group, disinformation concerns depend mainly on the country of origin. Age group and municipality size demonstrate limited discrimination power. With the exception of the oldest age group (between 85 and 94 years), which presents a very small sample size, percentage distributions remain consistent across disinformation concerns. A similar pattern exists when the distribution is calculated by municipality size, suggesting that disinformation concerns are **shaped mostly by national context**.

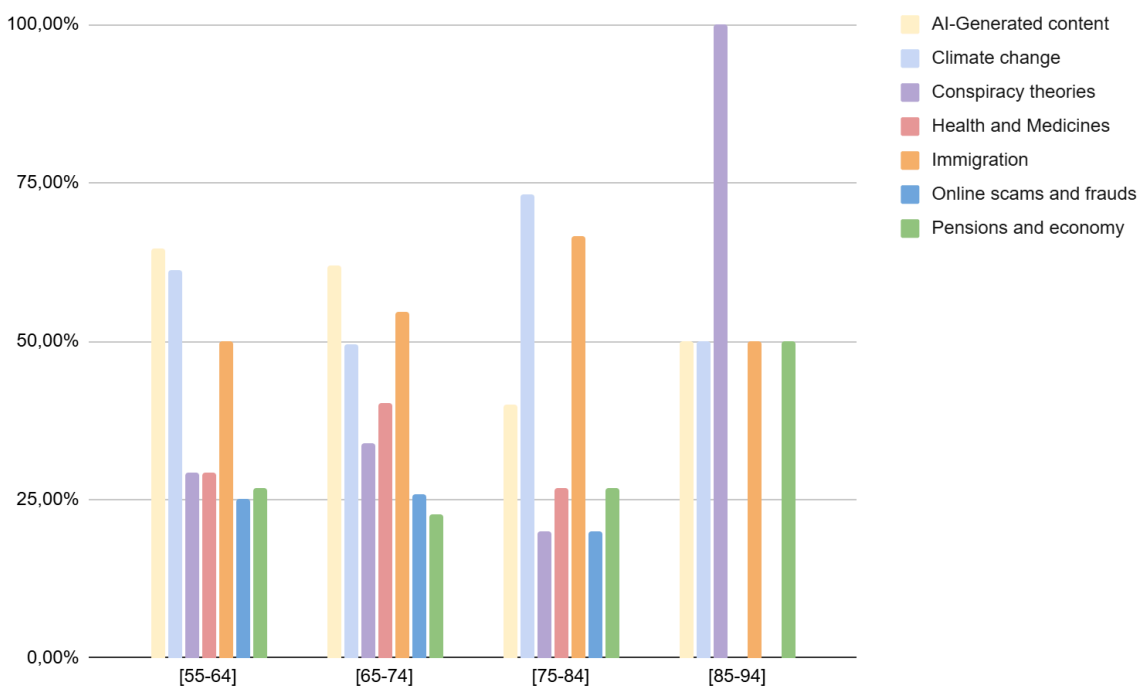
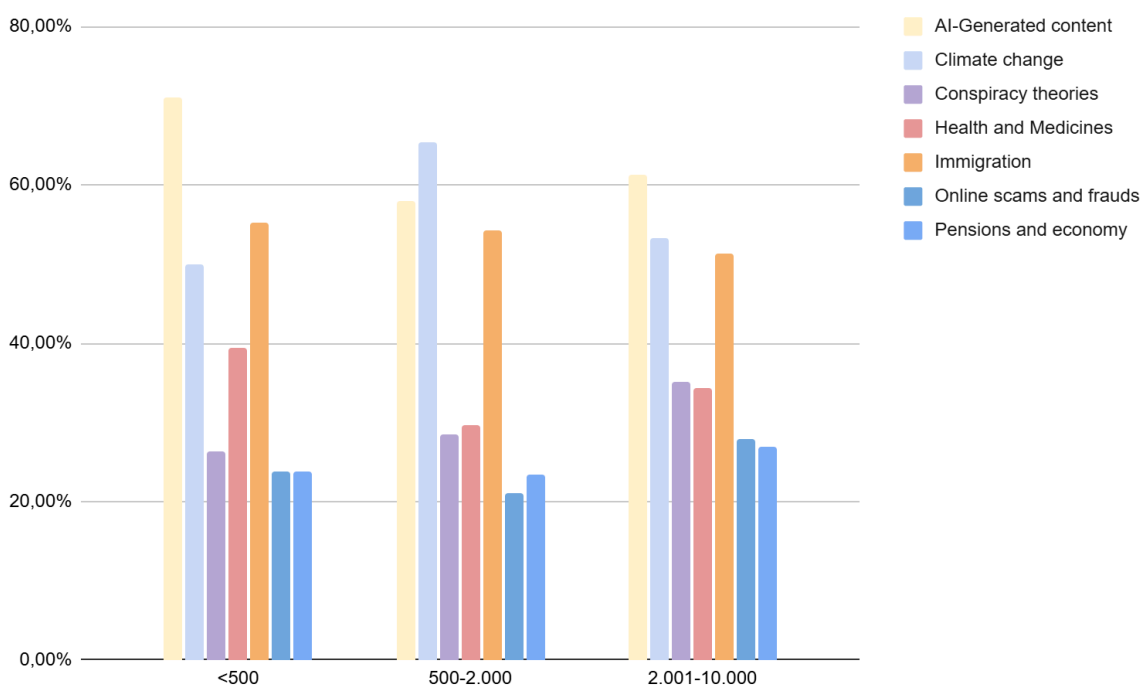
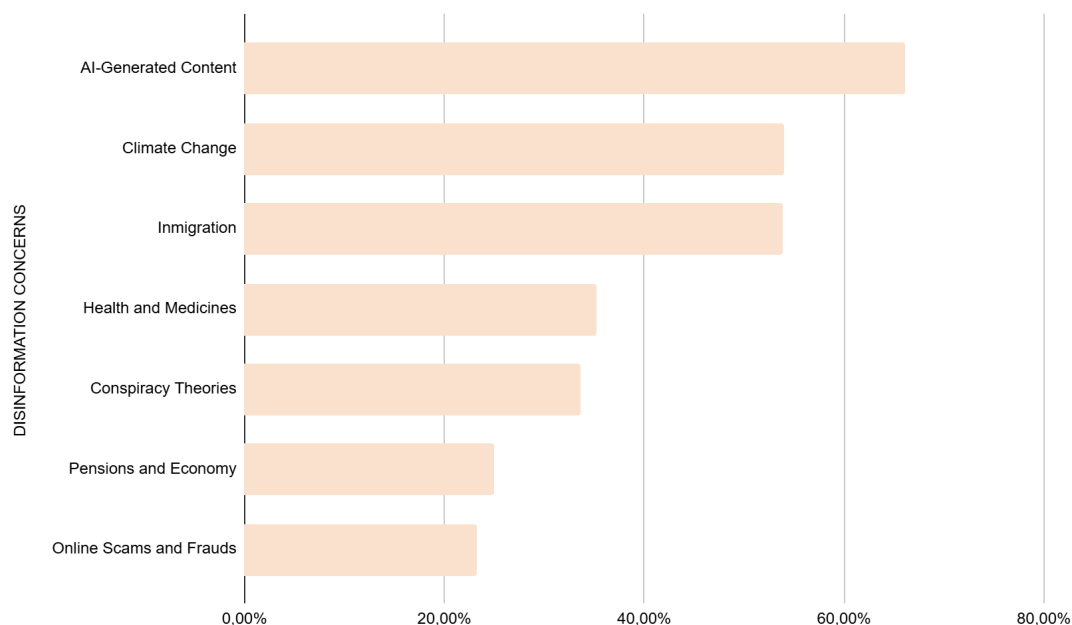
**Figure 9.** Disinformation concerns by age group (target group)

**Figure 10.** Disinformation concerns by municipality size (target group)

A cluster of concerns can be identified: **Immigration, AI-Generated content** and **climate change**: 93% of respondents have manifested concern for at least one of them and 16% of the participants exposed concern for the three of them simultaneously. As it can be observed in Figure 11, these three topics coincide with the main concerns at the aggregate level.

**Figure 11.** Disinformation concerns (general)

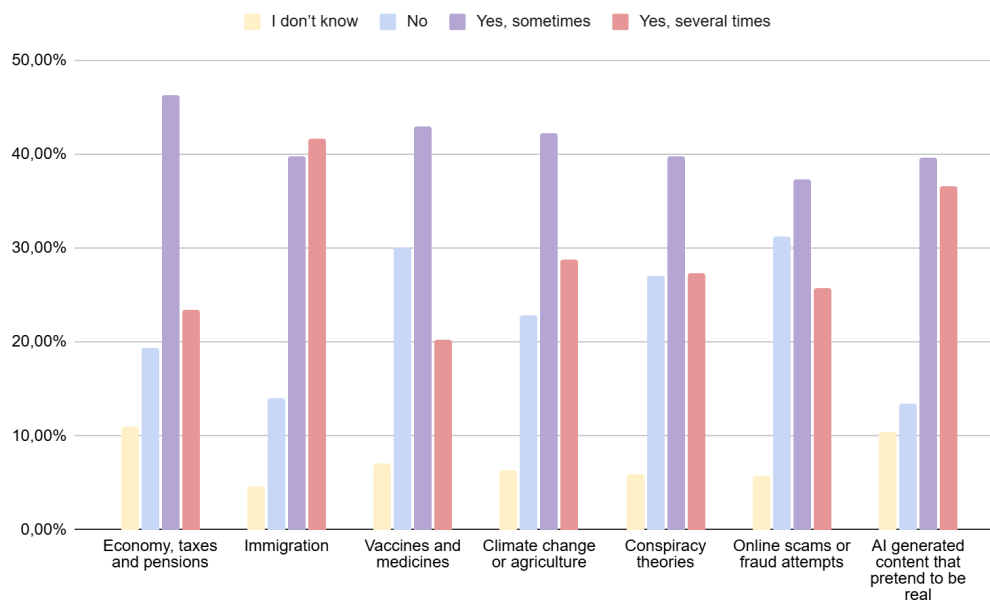
#### 4.5. Disinformation exposure

Participants were asked whether they had encountered disinformation related to different topics, collecting their responses on a four point scale (*No; I don't know; Yes, sometimes; Yes, several times*).



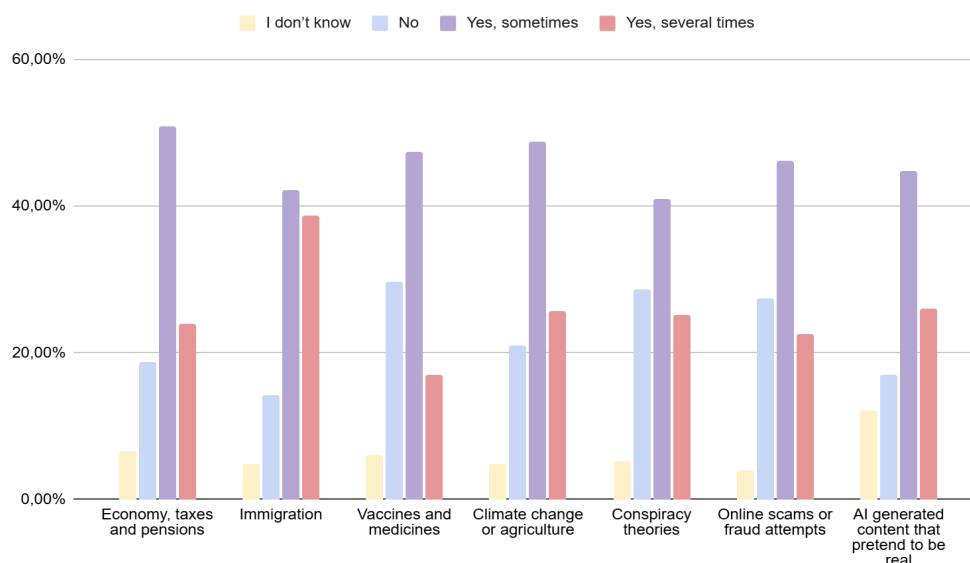
The aggregate data show that 81.5% of respondents reported some level of exposure to **immigration** related disinformation, and 76.2% reported some level of exposure to **AI-generated content** pretending to be real. Exposure to the remaining topics ranged between 60% and 70%. It should be noted that 11% of respondents declared not knowing whether they had been exposed to **economy, taxes and pensions** disinformation content, and 10.4% declared not knowing whether they had encountered **AI-generated content pretending to be real**.

**Figure 12.** Disinformation exposure (general)



As it can be observed, there are no meaningful differences when focusing on the target group. The differences between both groups range approximately 5 perceptual points in terms of any exposure (*yes, sometimes* and *yes, several times*). The most notable change is that this target group appears more capable of identifying whether a given content is misleading, as reflected in lower “*I don't know*” response rates. The only exception is **AI-generated content pretending to be real**, where the target group shows higher values across all response options except “*Yes, several times*”, which drops 10 percentage points in comparison to the aggregate data. Only 2.2% among the target group declared **no exposure** to any disinformation topic in the last week.

**Figure 13.** Disinformation exposure (target group)



#### 4.6. Beliefs

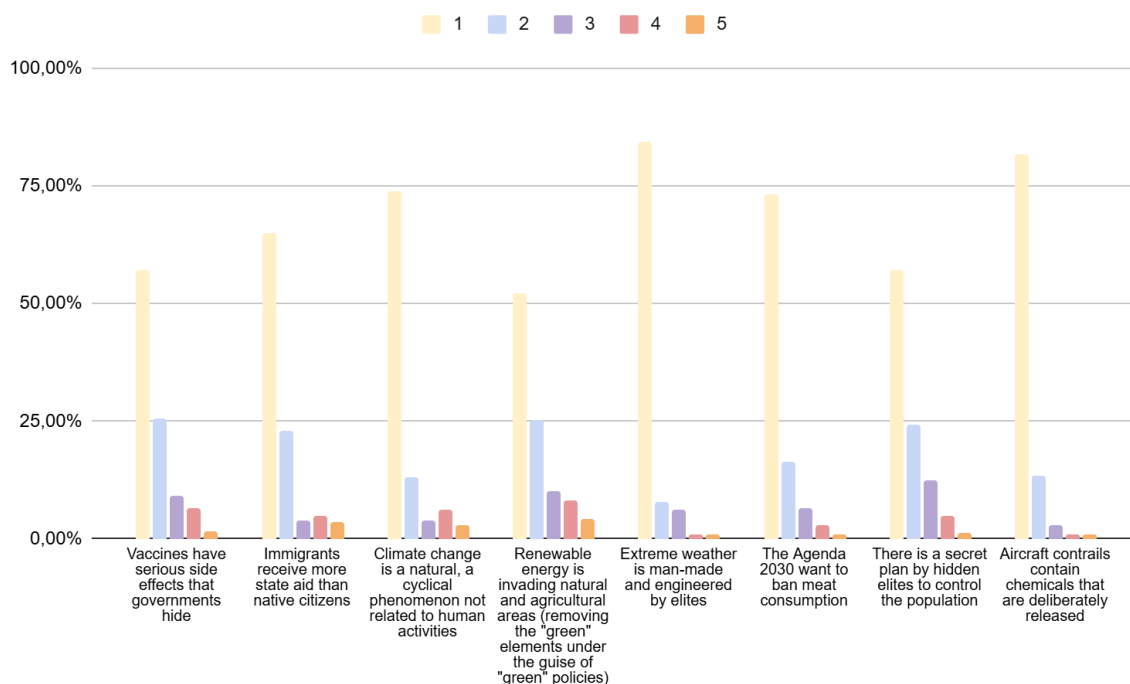
Respondents were asked to rate their degree of belief in a set of statements using a five-point scale, where 1 indicated complete disbelief and 5 indicated complete belief (Figure 14). The analysis of these beliefs is focused on older age groups, as these segments are considered particularly relevant. The tables below display the absolute frequency distributions for each belief, cross-tabulated by degree of belief (1-5) and age group.

Figure 14. Five-point scale (degree of belief)

| 1                                          | 2              | 3                    | 4             | 5                                    |
|--------------------------------------------|----------------|----------------------|---------------|--------------------------------------|
| Completely false / Don't believe it at all | Probably false | Not sure / Can't say | Probably true | Completely true / I fully believe it |

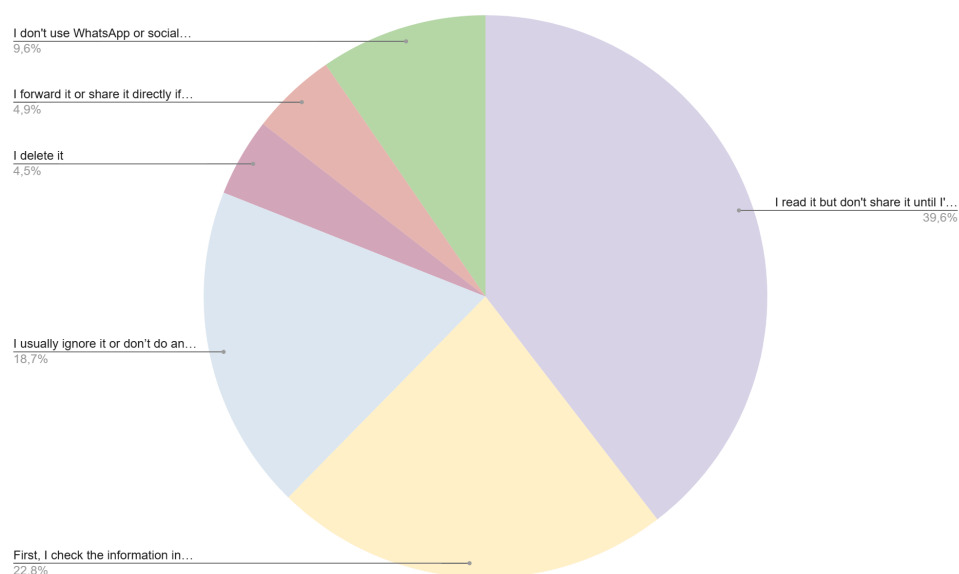
It is worth noting that skepticism is the overarching pattern across the data presented: 1 (don't believe it at all) and 2 (probably false) account for over 80% of the responses in all statements, with the exception of belief **“Renewable energy is invading natural and agricultural areas”**, where responses shown a wider distribution: 77.4% of respondents indicate disbelief to some degree (1 or 2) and 12.6% express some degree of belief (4 or 5). The statement **“Climate change is a natural, a cyclical phenomenon not related to human activities”** is the second one with the highest rate of belief (9.1%), and the lowest rate of neutral responses (3.9%), suggesting that respondents tend to have a more defined opinion on this topic. **“Immigrants receive more state aid than native citizens”** also registers this proportion of neutral responses while also being the third statement with the highest degree of agreement: 8,3% of respondents evaluated this belief as probably true or completely true.

Figure 15. Beliefs (target group)

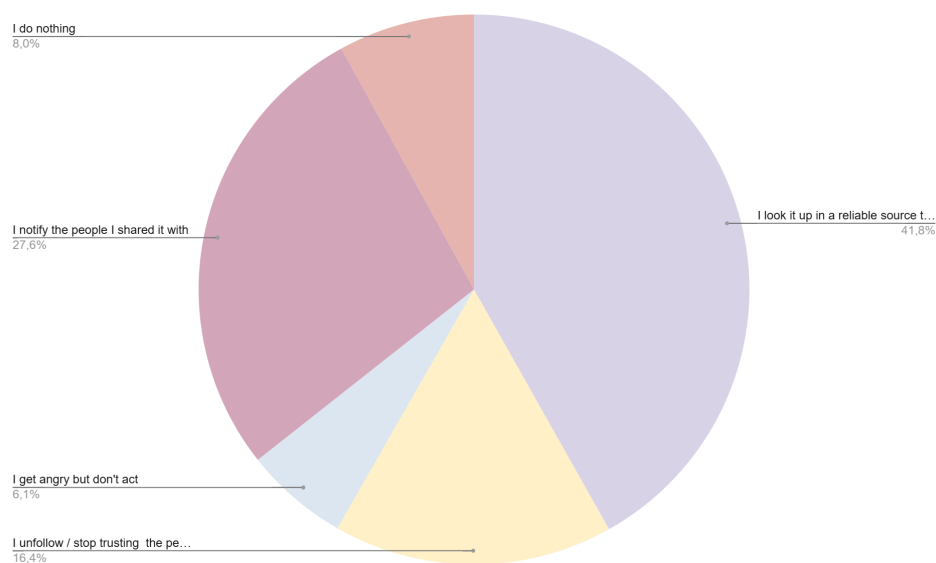


#### 4.7. Behaviour when receiving news

Having established the landscape of disinformation concerns and beliefs, this section turns to the behaviour of the participants when they receive news and when they find out a content is disinformation.

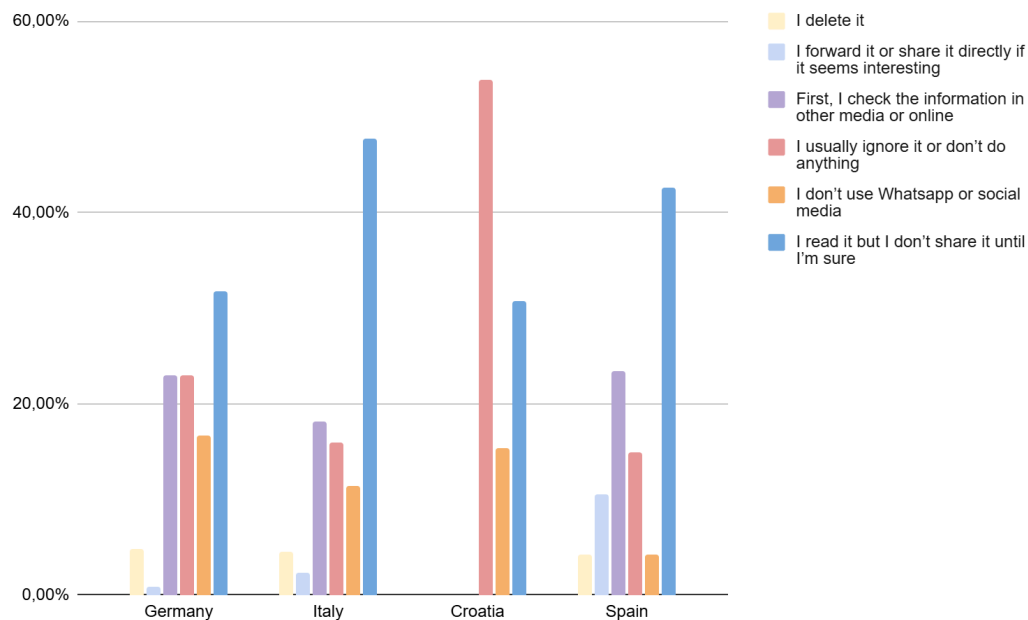
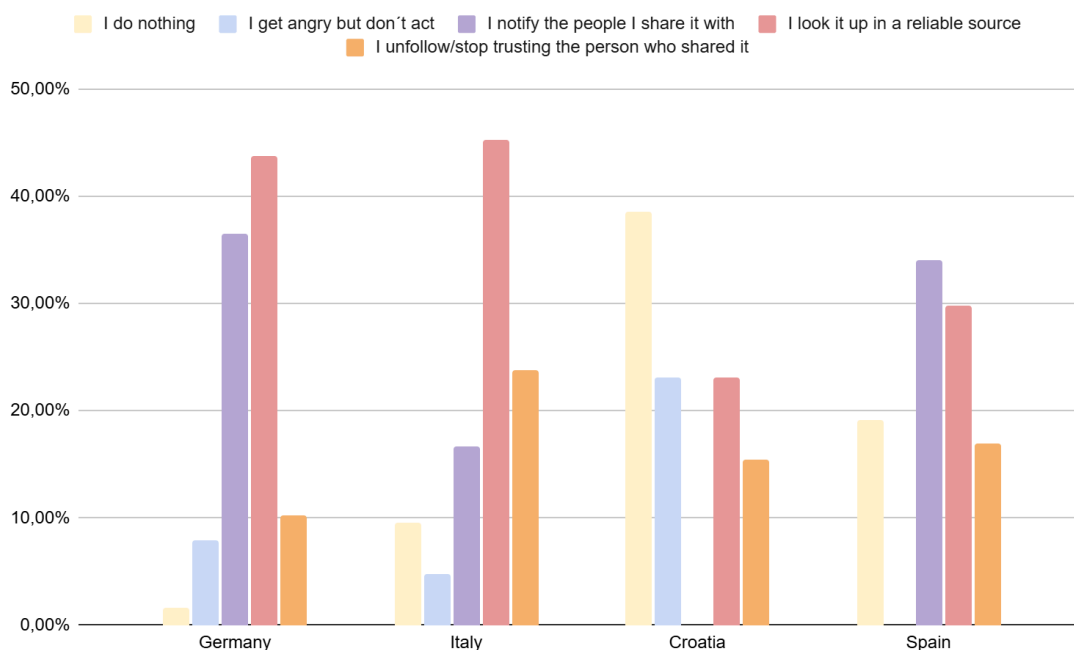
**Figure 16.** Behaviour when receiving news (general)

At the aggregate level, the preferred option among the participants when receiving news is **reading them, but not sharing them until they know it's true**, followed by checking them in other media or online. Only 4.9% of the participants **share the content without prior verification**, while 9.6% of the participants **don't use Whatsapp or social media**. When asked how they act when realizing that the content received is disinformation, 41.6% of the respondents replied that they **look it up in a reliable source** and 27.6% answered that they **notify the people they shared the content to**. Up to 16.4% of the participants stated that they **stop trusting or following the person** that shared the content. A small percentage of the respondents declared that they **take no action**: 6.1% of the participants get angry but don't act and 8% of the participants do nothing.

**Figure 17.** Behaviour when realizing that it's disinformation (general)

The data reveal that distributions remain relatively consistent regardless of age group or municipality size, while showing differences when it comes to the country of the participants.



**Figure 18.** Behaviour when receiving a news by countries (target group)**Figure 19.** Behaviour when realizing a content is disinformation by countries (target group)

While these findings provide a general overview of respondents' behaviour, these two variables can be examined in combination. More specifically, at aggregate level, **57.1% of the participants who shared content without prior verification upon realizing that the content was false or misleading notified the people they shared it with.** This distribution remains stable when the target group is examined.



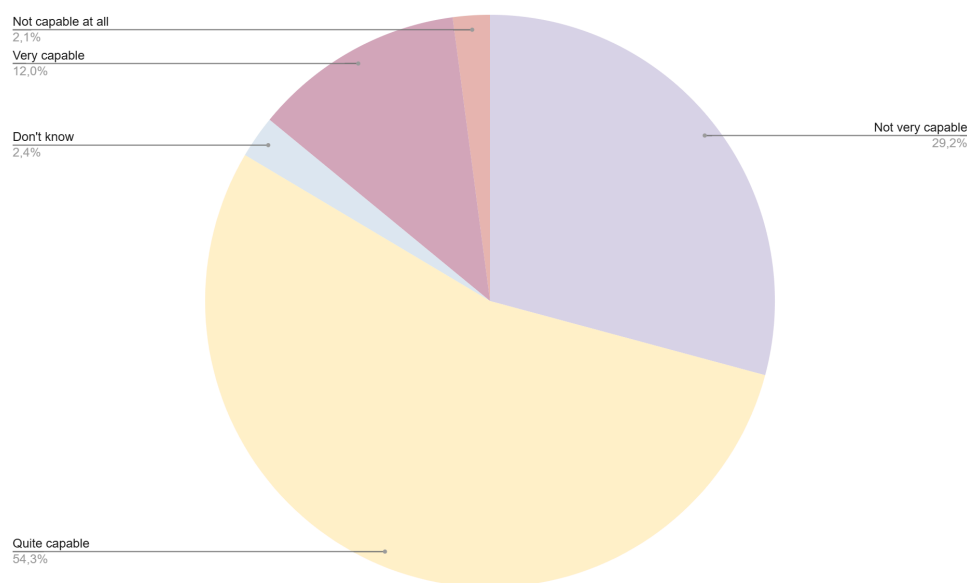
#### 4.8. Self-perception and media literacy skills

Participants were asked to rate their own ability to distinguish disinformation from reliable information. The distribution shows that 66.3% of the participants describe themselves as **quite capable** or **very capable** of distinguishing disinformation, 29.2% **did not feel very capable**, and 2.1% said they were **not capable at all** (Figure 20).

Among respondents who reported having received some form of media literacy education, informal training emerged as the preferred option, with 52.4% of the total sample having received this type of media literacy training. Formal workshop or course-based training was only reported by 18% of the participants, while **almost 30% of the respondents have never received any type of training**. This distribution holds across the respondents between 55 and 95 years: 55.1% having received informal training, 29.2% having received formal training and 15.7% with no formal or informal media literacy training. Focusing on the oldest age group surveyed (85-94 years), no respondents reported having received training in media literacy through a workshop, although half of them indicated having received informal training through family or friends.

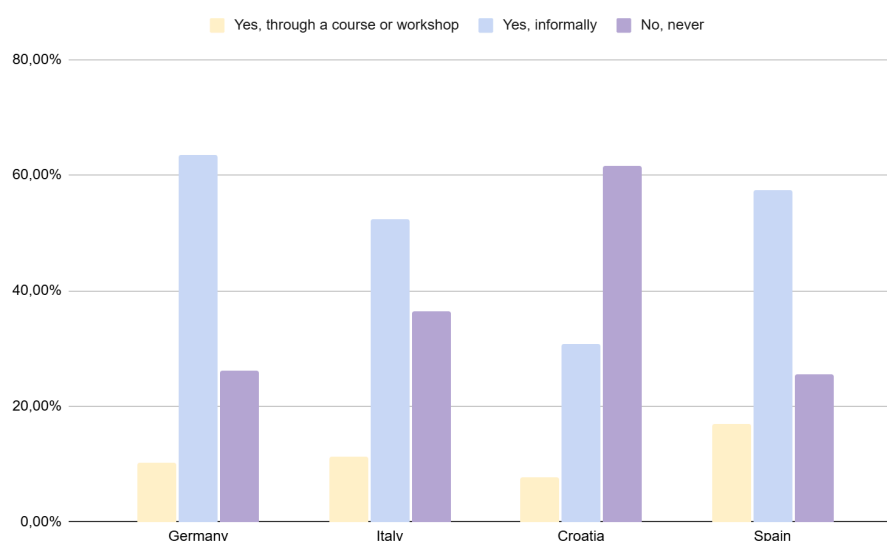
This distribution does not hold for smaller populations, where **lower levels of media literacy training have been reported** by the participants. While similar levels of informal media literacy training have been reported (58.3%), 30% have never received any type of media literacy training and only 11.7% have received formal media literacy training.

**Figure 20.** Self-perception (general)



The data also reveals **meaningful differences in media literacy training between participants of the different countries**. Within the target group, Croatia is the country with fewer participants with literacy training, with only 38.5% of respondents having reported some type of media literacy training. The country with less participants without literacy training is Spain, which also has the most participants with formal media literacy training.

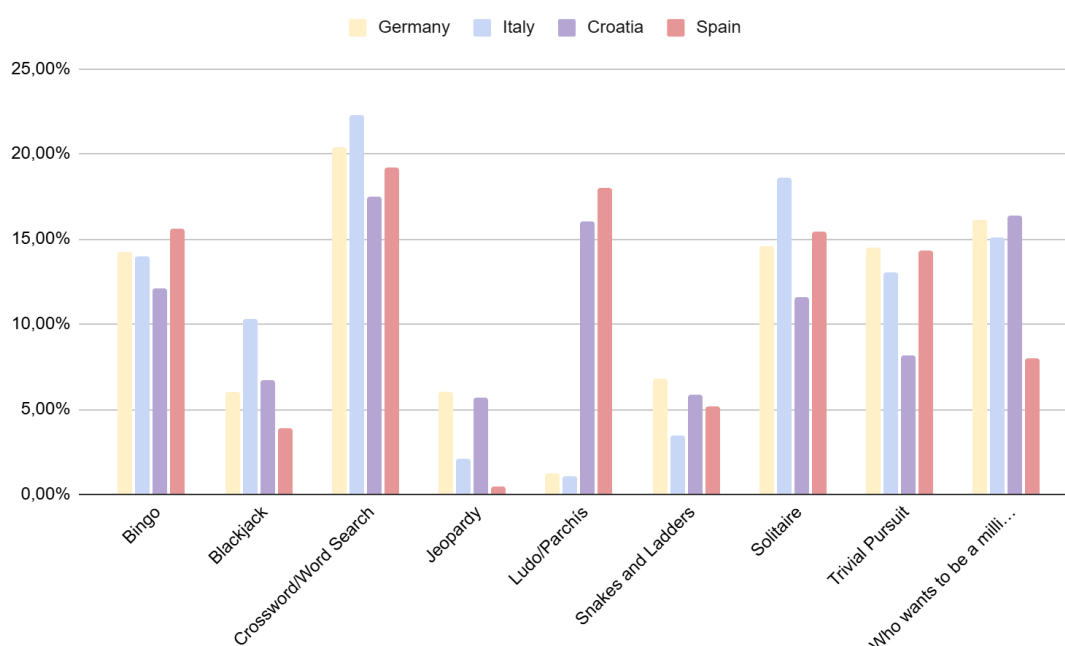


**Figure 21.** Media literacy training by country (target group)

It can be observed that **Spain presents the highest rate of formal media literacy training** (17%) yet more than a half of respondents (51.1%) rate themselves a “Not very capable” or “Not capable at all” when asked about their capability of distinguishing disinformation. **Italian respondents show higher positive self-perception values:** over 70% of the participants rated themselves as “Very capable” or “Quite capable”.

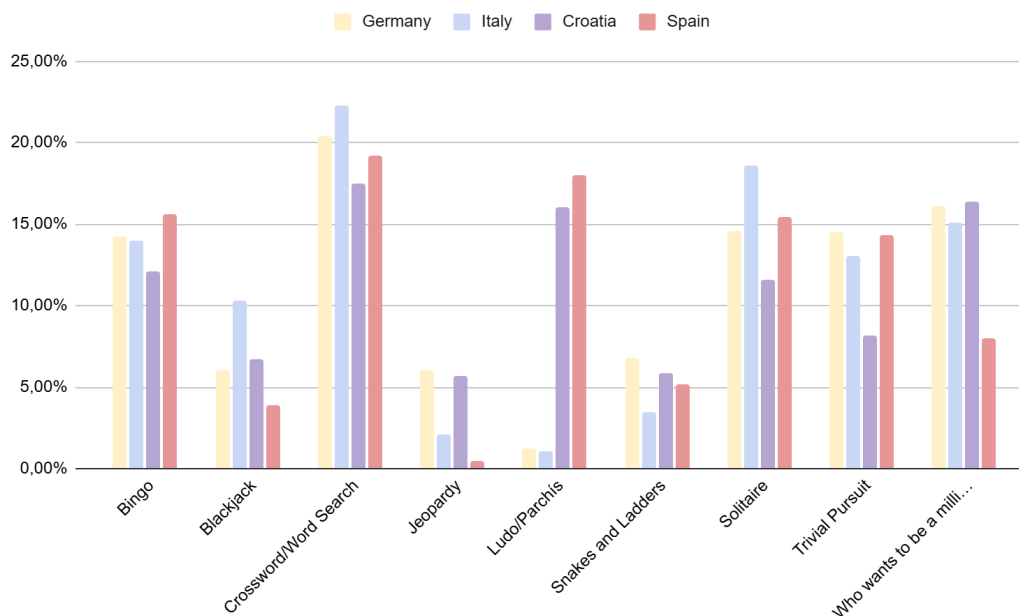
#### 4.9. Game popularity

In order to design educational materials based on well-known games, participants were asked to select the games they are familiar with. **Crossword/word search is the most mentioned game** across all countries, ranging from 19.2% in Spain to 22.3% in Italy. The second most mentioned game is **bingo**, with percentages that range from 12.1% to 15.6%. The other games show a similar distribution across countries, with the largest gap between any two nations 8 percentage points, observed for Germany and Spain in the case of the game **Who wants to be a Millionaire**.

**Figure 21.** Game popularity by country (general)

Focusing on the target group, **crossword/word Search** remains the most popular across all countries, showing a slight increase of a few percentage points compared to the aggregate data, ranging from 21.6% to 30.3%. **Bingo** maintains a similar score and distribution to the aggregate data (between 12.7% and 16.1%), while the remaining games show a more uneven distribution across countries. Despite showing an uneven distribution, **solitaire** and **trivial pursuit** have a high popularity in all countries, with Croatia being an exception in both cases.

**Figure 22.** Game popularity by country (target group)



## 5. Conclusions

The primary aim of this report was to examine the mis- and disinformation landscape affecting older adults and rural communities across Croatia, Germany, Italy, and Spain, to assess their information habits and media literacy levels, and to identify gaps in existing educational provision. Together, these three analytical strands converge on a consistent picture: a population that is highly exposed, largely undertrained, and predominantly unreachable through the formats and channels that current provision tends to favor.

The analysis of disinformation narratives reveals a complex landscape shaped by both shared vulnerabilities and national differences. While common patterns exist among all socio-demographic variables, **national context** is the most determining factor in how disinformation manifests and spreads in each country. Several narrative families are present across all four countries. **Immigration**, encountered by 81.5% of respondents in the week before the survey, is consistently framed as both an economic threat (assuming that “immigrants have more social benefits than native citizens”) and security concerns linked to crime and social disorder. **Climate change** disinformation, which finds greater levels of concern in Germany (65.1%) and Italy (61.4%), predominantly portrays global warming as “a natural phenomenon unrelated to human activity”, while also discrediting solutions such as renewable energy or electric cars. In the domain of **health** and **science**, vaccine hesitancy and conspiracy theories persist across all contexts (with particular intensity in Croatia and Spain), actively working to undermine institutional and scientific credibility. Beyond these core themes, anxiety about the future is exploited through narratives claiming “the **public pension system** is on the verge of collapse”, and initiatives such as the digital euro are framed as “a tool designed to control citizens' financial autonomy”. Across all countries, **scams** using deepfakes of public figures have been detected to promote fraudulent investment platforms. The fact that we are dealing with a disinformation landscape shaped by a “finite” set of recurring logics, albeit with variants adapted to each national context, is relevant for the next phases of the project, insofar as it means that **a common thematic structure is viable across all four countries**.



The reach and impact of these disinformation narratives are closely tied to the **information habits** that shape how populations consume and evaluate content. The trust hierarchy, meanwhile, offers another clearer entry point for intervention design: **scientists and researchers** are trusted by 78.3% of respondents overall (87.8% in Germany), **public media** by 64.8%, and governing parties by fewer than 10% in any country. Regarding the media, Germany and Spain favour public media, while Italy and Croatia trust private media. Italy also stands as the only country where a significant share of participants relies on influencers for information. The practical conclusion is that POP materials should be **anchored in scientific framing and dissociated from any political association**, and that local community figures (carers, association leaders, volunteers) are better positioned as facilitators than institutional actors.

A further finding worth noting concerns **AI-generated content**, which ranks as the leading disinformation concern across all four countries yet is one of the categories where the target group reports lower self-identified exposure. Two explanations are plausible and not mutually exclusive: older adults do make less use of social media, the primary circulation environment for synthetic content; but it is also possible that lower reported exposure reflects reduced capacity to recognise AI-generated material as false rather than genuinely lower encounter rates. This second possibility, which the data cannot rule out, reinforces AI literacy as a priority area for educational intervention. The behavioural data offer a more encouraging counterpoint. 57.1% of respondents who had shared false content subsequently notified the people they forwarded it to. This suggests that the baseline orientation toward **responsible digital behaviour** already exists in this population, and that media literacy education need not construct it from scratch but can build on it.

On the other hand, the state-of-the-art review confirms a field that is active but structurally misaligned with the population it claims to serve. We have seen how provision across all four countries follows the same profile: short-term, EU-funded projects concentrated in urban institutional settings, oriented toward device use and platform navigation rather than critical evaluation of manipulative content, and invisible to the older adults in rural areas who are not already connected to formal adult education networks. Se puede concluir que existe cierto problema de formato y continuidad. Moreover, in our opinion, the initiatives that have shown more promising results (such as BuloBus, Medien|66 or DISERA) share that they go to where communities already are instead of waiting for audiences to self-select. Evidence from Moore and Hancock (2022) that a single well-designed hour-long session can substantially improve fake news discernment among adults aged 67 and older demonstrates that the absence of effective provision is not a ceiling imposed by the population's capacity. Adults aged 75 and over, nearly absent from current programmes and statistically invisible in many official skills surveys, represent the sharpest instance of this failure. The survey data on game preferences are directly actionable here. Crosswords and word searches are the most familiar to the target group in all four countries, followed by bingo, solitaire, and trivial pursuit. These formats do not require prior digital fluency, can travel without infrastructure, and map naturally onto group facilitation. Therefore, they could provide the clearest indication of which formats could lower the participation threshold for populations least reached by current provisions.

Taken together, the three research components point toward the same set of conditions for effective intervention: (1) physical presence in familiar community spaces, (2) trusted local facilitators, (3) content grounded in the nationally specific narratives that circulate in each context, (4) and formats accessible without prior digital skills. The prevailing patterns of provision, while not immutable, will not shift without deliberate design choices that prioritise reach over convenience and depth over coverage.

## 6. Methodology

This report adopts a cross-border mixed-methods design integrating three complementary components: (1) a qualitative analysis of disinformation narratives across seven thematic categories in Croatia, Germany, Italy, and Spain, grounded in verified fact-checking databases; (2) a cross-national survey including older adults and rural community members assessing disinformation exposure and media literacy needs; and (3) a state-of-the-art review of existing media literacy education initiatives targeting older and rural populations at national and European levels. This section details sampling strategies, data collection protocols, coding schemes, quality assurance procedures, and ethical considerations, while acknowledging the principal limitations of each component. All three components were coordinated by Maldita.es, with contributions from all consortium partners, and conducted between January and April 2026.

The study operationalizes a set of definitions agreed upon by the consortium. Following established conventions in the fact-checking and disinformation research field, a distinction is drawn between narrative (a recurring discursive pattern condensing an explicit or implicit message present in a set of



claims) and claim (a discrete unit of information that can be either true or false and is usually verifiable against an external reality). Disinformation claims are intentionally false or misleading statements embedded in broader narratives with persuasive or mobilizing functions. This distinction governs the analytical coding applied in Component 1 and ensures cross-national comparability.

### 6.1. Component 1: disinformation narrative analysis

In this first phase, we identified the main disinformation narratives present in each country's information ecosystem, paying particular attention to those that might resonate most strongly with older adults and rural populations. The analysis is structured around seven thematic categories defined by the consortium on the basis of accumulated fact-checking experience and academic literature: economy and pensions; immigration; science and health; climate change, agriculture and livestock farming; scams and online security; conspiracy theories; and artificial intelligence.

The corpus draws on two types of sources. Primary sources consist of verified fact-checking databases maintained by the consortium partners (Maldita.es, Correctiv, Faktograf, and The Fact-Checking Factory/Facta and Pagella Politica) all certified signatories of the International Fact-Checking Network (IFCN) Code of Principles and founding members of the European Fact-Checking Standards Network (EFCN). Secondary sources include reports from European institutions, peer-reviewed academic literature, and national statistics on older adults' media consumption patterns.

To ensure uniformity of analysis, a research guide was distributed that included: (1) initial cases identified by Maldita.es to serve as a starting point for exploring similar narratives in the other countries; (2) encouragement of the inclusion of additional narratives specific to each national context; and (3) specific questions per category to assist in the identification and classification of the main disinformation narratives.

Each national partner documented three to five narratives per thematic category. For each narrative, partners provided: (a) a description of the recurring discursive pattern articulating its internal logic and relevance for the target group; (b) at least one documented, verifiable case (preferably verified by an IFCN-certified organization); (c) an analysis of the channels through which older adults access information and disinformation in their national context, grounded in recent survey data and academic literature; and (d) a selection of the tactics most frequently identified in disinformation narratives.

### 6.2. Component 2: survey

In a second phase, the aim was to provide quantitative data on exposure to disinformation, media consumption habits, and media literacy needs in the four countries involved in the project. Maldita.es designed a standardized questionnaire for all four countries, which was translated by each national partner. The instrument's design prioritized lexical clarity, brevity, and simple response formats, taking into account the characteristics of the target group and the risk of survey fatigue among older participants. Although the survey is primarily aimed at adults aged 50 and older residing in municipalities with fewer than 10,000 inhabitants (in accordance with the project's operational definition of a rural community) responses from participants aged 18 to 49 were retained for comparative purposes.

The instrument is organized in four thematic blocks. Block A captures sociodemographic variables (age, gender, area of residence categorised by population size, and educational level) enabling segmentation and cross-national comparison. Block B addresses media consumption habits, including platform use, frequency, preferred information sources, and engagement with messaging applications such as WhatsApp. Block C examines disinformation exposure (self-reported frequency of encountering false or misleading content, thematic distribution, verification behaviours, and emotional responses). Block D assesses media literacy needs, including self-perceived competences, interest in training, preferred educational formats, and willingness to participate in community activities. Block D assesses media literacy needs, including self-reported skills, training received, and preferred educational formats based on well-known games (see Appendix 1).

Distribution channels included the social media platforms, newsletters, and WhatsApp channels of the consortium partners and their collaborative networks (mainly including local action groups, local development organizations, and organizations working with older adults).

Data analysis employs descriptive statistics and segmentation by key sociodemographic variables; cross-national comparative analysis identifies shared trends and country-specific divergences.



Participation was voluntary and anonymous; no personally identifiable data were collected; and all data processing complied with the EU General Data Protection Regulation (GDPR).

### **6.3. State-of-the-art media literacy review**

Finally, we conducted a review of recent programs, resources, and approaches related to media literacy education for older adults and rural communities at the national and European levels, drawing analytical conclusions regarding their effectiveness, transferability, and areas for improvement that POP should address. Maldita.es covered the European-level review; national partners covered their respective country contexts.

The following criteria were used to select initiatives: the initiative included older adults or educators and caregivers working with this group within the target audience; the content focused on media literacy, fact-checking, identifying mis-/disinformation, or online safety, rather than just general digital skills; the geographic scope covered at least one project country or a European initiative actively implemented there; the activity was active at some point within the last five years (2021-2026).

Each national partner conducted a documentary search drawing on publicly available sources, including national public body portals, EU project databases, civil society and NGO websites, academic publications, and European-level organizations. Each identified initiative was documented using a standardized record capturing: name; geographical scope; promoting organization; period of activity; specific target group; thematic areas covered; format and modality; evidence of effectiveness; and source URL or reference. Complementary to the initiative inventory, each partner completed a gap analysis table identifying the most significant absences in their national landscape, such as the lack of initiatives for rural older adults, absence of AI/deepfake content, or insufficient accessible formats, which were then compared at cross-border level to identify patterns of omission.



## Appendices

### Appendix 1. Questionnaire and results tables

#### Q1. How old are you?

*Select one option*

- Between 18-24 years
- Between 25-34 years
- Between 35-44 years
- Between 45-54 years
- Between 55-64 years
- Between 65-74 years
- Between 75-84 years
- Between 85-94 years
- 95 years or older

#### Q2. What is your gender?

*Select one option*

- Female
- Male
- Other
- Prefer not to say

#### Q3. What type of area do you currently live in?

*Select one option*

- Fewer than 500 inhabitants
- Between 500 and 2,000 inhabitants
- Between 2,001 and 10,000 inhabitants
- Between 10,001 and 50,000 inhabitants
- More than 50,000 inhabitants

#### Q4. What is your level of education?

*Select one option*

- No formal education or primary education
- Lower secondary education
- Upper secondary education
- Post-secondary education / Vocational education
- University degree or higher

### **[BLOCK B. INFORMATION CONSUMPTION HABITS]**

*[This section covers the channels through which older adults access information. The results will directly feed into the 'Channels' section of the narratives report]*

#### Q5. Through which media or channels do you usually get your information?

*You can select from 1 to 3 options*

- Television
- Radio
- Print media (newspapers)
- Digital media (newspaper or media websites)



- WhatsApp or messaging apps (e.g., Telegram)
- Social media (Facebook, YouTube, Instagram, Twitter, etc.)
- News Apps
- Mail Newsletters
- AI Tools
- Family or friends (orally)
- Other: \_\_\_\_\_

**Q6. Whose information do you trust in public discourse?**

*You can select from 1 to 3 options*

- Opposition Parties
- Governing Parties
- Public broadcasting news
- Private broadcasting news
- NGOs and activists
- Scientists / researchers
- Influencers and content creators
- Family / friends
- AI tools or chatbots
- No one/ I don't trust any of them
- Other (specify): \_\_\_\_\_

**[BLOCK C. EXPOSURE TO DISINFORMATION AND SCAMS]**

*[This block measures perceived exposure to disinformation and the ability to recognise it. It includes a recognition question by thematic category, aligned with the seven categories of narrative analysis]*

**Q7. Which of these issues concerns you most regarding false information/disinformation?**

*You can select from 1 to 3 options*

- Health and medicines
- Pensions and economy
- Immigration
- Climate change
- Online scams and frauds
- AI-generated content that pretends to be real
- Conspiracy theories

**Q8. In the last week, have you come across any of the following? Select all that apply.**

*For each topic, please check one box*

|                                                                                       | Yes, several times | Yes, sometimes | No | Don't know |
|---------------------------------------------------------------------------------------|--------------------|----------------|----|------------|
| False or exaggerated information about economy, taxes and pensions                    |                    |                |    |            |
| False or exaggerated information about immigration                                    |                    |                |    |            |
| False or exaggerated information about science and health (e.g., vaccines, medicines) |                    |                |    |            |



|                                                                      |  |  |  |  |
|----------------------------------------------------------------------|--|--|--|--|
| False or exaggerated information about climate change or agriculture |  |  |  |  |
| Conspiracy theories                                                  |  |  |  |  |
| Online scams or fraud attempts                                       |  |  |  |  |
| AI-generated content that pretends to be real                        |  |  |  |  |

**Q9. On a scale of 1 to 5, how reliable do you find these statements?***For each one, please check one option*

|                                                           |                            |                                  |                           |                                                     |
|-----------------------------------------------------------|----------------------------|----------------------------------|---------------------------|-----------------------------------------------------|
| <b>1</b><br>Completely false /<br>Don't believe it at all | <b>2</b><br>Probably false | <b>3</b><br>Not sure / Can't say | <b>4</b><br>Probably true | <b>5</b><br>Completely true / I<br>fully believe it |
|-----------------------------------------------------------|----------------------------|----------------------------------|---------------------------|-----------------------------------------------------|

**1. "Vaccines have serious side effects that governments hide"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**2. "Immigrants receive more state aid than native citizens"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**3. "Climate change is a natural, a cyclical phenomenon not related to human activities"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**4. "Renewable energy is invading natural and agricultural areas (removing the "green" elements under the guise of "green" policies)"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**5. "Extreme weather is man-made and engineered by elites"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**6. "The Agenda 2030 want to ban meat consumption"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**7. "There is a secret plan by hidden elites to control the population"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5**8. "Aircraft contrails contain chemicals that are deliberately released"**

Select one:

☐ 1☐ 2☐ 3☐ 4☐ 5

#### [BLOCK D. BEHAVIOUR]

*[These questions measure how disinformation affects the emotions, attitudes, and behaviors of older adults. It is key to justifying the project's educational interventions]*

**Q10. When you receive news or information via WhatsApp or social media, what do you usually do?**

*Select one option*

- I forward it or share it directly if it seems interesting
- First, I check the information in other media or online
- I read it but don't share it until I'm sure
- I usually ignore it or don't do anything
- I delete it
- I don't use WhatsApp or social media

**Q11. If you discover that information you got from WhatsApp or social media was a lie, what do you do?**

*Select one option*

- I notify the people I shared it with
- I look it up in a reliable source to confirm
- I do nothing
- I get angry but don't act
- I unfollow / stop trusting the person who shared it

#### [BLOCK E. MEDIA LITERACY]

**Q12. How capable do you feel of distinguishing fake content from real information?**

*Select one option*

- Very capable
- Quite capable
- Somewhat capable
- Not at all capable
- Don't know

**Q13. Have you ever received training or information on how to detect disinformation?**

*Select one option*

- Yes, through a course or workshop
- Yes, informally (family, friends, media, etc.)
- No, never

**Q14. In order to design educational materials based on well-known games, do you know these ones?**

*You can select multiple options*

- Bingo
- Crosswords or word search puzzles
- Trivial Pursuit
- Jeopardy
- Who wants to be a millionaire
- Blackjack
- Solitaire
- Snakes and Ladders
- Ludo



**Table A1.** Trusted sources by country (general)

| Source                        | Germany | Italy | Croatia | Spain |
|-------------------------------|---------|-------|---------|-------|
| Scientist/ Researchers        | 87.8%   | 68.2% | 75%     | 63.2% |
| Public media news             | 85.9%   | 38.5% | 21.6%   | 69.1% |
| NGOs and activists            | 59%     | 28%   | 21.6%   | 69.1% |
| Private media news            | 6.9%    | 46%   | 34.5%   | 50.7% |
| Family/Friends                | 11.8%   | 9.2%  | 12.1%   | 14%   |
| Opposition parties            | 5.9%    | 11.7% | 14.7%   | 5.9%  |
| No One/I don't trust anyone   | 1.6%    | 8.4%  | 11.2%   | 9.6%  |
| Influencers/ Content creators | 2.5%    | 11.3% | 0.9%    | 0.7%  |
| Governing parties             | 3.5%    | 2.1%  | 1.7%    | 11.8% |
| AI Tools/Chatbots             | 1.2%    | 2.5%  | 4.3%    | 1.5%  |
| Other                         | 2.4%    | 7.1%  | 2.6%    | 1.5%  |

**Table A2.** Trusted sources (general)

| Source                       | Source |
|------------------------------|--------|
| Scientists/Researchers       | 78.32% |
| Public media news            | 64.84% |
| NGOs and activists           | 46.85% |
| Private media news           | 25.37% |
| Family/Friends               | 11.49% |
| Opposition parties           | 8.29%  |
| No One/I don't trust anyone  | 5.39%  |
| Influencers/Content creators | 4.20%  |
| Governing parties            | 4.10%  |
| Other                        | 3.40%  |
| AI Tools/Chatbots            | 1.90%  |

**Table A3.** Trusted sources (target group)

| Source                       | Source |
|------------------------------|--------|
| Scientist/Researchers        | 73.5%  |
| Public media news            | 75.5%  |
| NGOs and activists           | 43.5%  |
| Private media news           | 21.7%  |
| Family/Friends               | 15.7%  |
| Opposition parties           | 8.3%   |
| No One/I don't trust anyone  | 6.5%   |
| Influencers/Content creators | 0%     |
| Governing parties            | 6.1%   |
| AI Tools/Chatbots            | 2.2%   |
| Other                        | 3%     |



**Table A4.** Disinformation concerns by countries (target group)

| Country | AI-content | Climate change | Conspiracy theories | Health / medicines | Immigration | Scams and frauds | Pensions / economy |
|---------|------------|----------------|---------------------|--------------------|-------------|------------------|--------------------|
| Germany | 65.1%      | 65.1%          | 36.5%               | 15.1%              | 67.5%       | 18.3%            | 19%                |
| Italy   | 52.3%      | 61.4%          | 43.2%               | 45.5%              | 38.6%       | 22.7%            | 31.8%              |
| Croatia | 53.8%      | 15.4%          | 0%                  | 92.3%              | 15.4%       | 61.5%            | 23.1%              |
| Spain   | 63.8%      | 42.6%          | 14.9%               | 55.3%              | 38.3%       | 34%              | 36.2%              |

**Table A5.** Disinformation concerns by age group (target group)

| Age     | AI-content | Climate change | Conspiracy theories | Health / medicines | Immigration | Scams and frauds | Pensions / economy |
|---------|------------|----------------|---------------------|--------------------|-------------|------------------|--------------------|
| [55-64] | 64.7%      | 61.2%          | 29.3%               | 29.3%              | 50%         | 25%              | 26.7%              |
| [65-74] | 61.9%      | 49.5%          | 34%                 | 40.2%              | 54.6%       | 25.8%            | 22.7%              |
| [75-84] | 40%        | 73.3%          | 20%                 | 26.7%              | 66.7%       | 20%              | 26.7%              |
| [85-94] | 50%        | 50%            | 100%                | 0%                 | 50%         | 0%               | 50%                |

**Table A6.** Disinformation concerns by municipality size (target group)

| Municipality size | AI-content | Climate change | Conspiracy theories | Health / medicines | Immigration | Scams and frauds | Pensions / economy |
|-------------------|------------|----------------|---------------------|--------------------|-------------|------------------|--------------------|
| <500              | 71.1%      | 50%            | 26.3%               | 39.5%              | 55.3%       | 23.7%            | 23.7%              |
| 500-2.000         | 58%        | 65.4%          | 28.4%               | 29.6%              | 54.3%       | 21%              | 23.5%              |
| 2.001-10.000      | 61.3%      | 53.2%          | 35.1%               | 34.3%              | 51.4%       | 27.9%            | 27%                |

**Table A7.** Disinformation exposure (general)

| Topic                                        | I don't know | No    | Yes, sometimes | Yes, several times |
|----------------------------------------------|--------------|-------|----------------|--------------------|
| Economy, taxes and pensions                  | 11%          | 19.4% | 46.3%          | 23.4%              |
| Immigration                                  | 4.6%         | 14%   | 39.8%          | 41.7%              |
| Vaccines and medicines                       | 7%           | 30%   | 42.9%          | 20.2%              |
| Climate change or agriculture                | 6.3%         | 22.9% | 42.2%          | 28.7%              |
| Conspiracy theories                          | 5.9%         | 27.1% | 39.8%          | 27.3%              |
| Online scams or fraud attempts               | 5.8%         | 31.2% | 37.3%          | 25.8%              |
| AI generated content that pretend to be real | 10.4%        | 13.5% | 39.6%          | 36.6%              |

**Table A8.** Disinformation exposure (target group)

| Topic                         | I don't know | No    | Yes, sometimes | Yes, several times |
|-------------------------------|--------------|-------|----------------|--------------------|
| Economy, taxes and pensions   | 6.5%         | 18.7% | 50.9%          | 23.9%              |
| Immigration                   | 4.8%         | 14.3% | 42.2%          | 38.7%              |
| Vaccines and medicines        | 6.1%         | 29.6% | 47.4%          | 17%                |
| Climate change or agriculture | 4.8%         | 20.9% | 48.7%          | 25.7%              |
| Conspiracy theories           | 5.2%         | 28.7% | 40.9%          | 25.2%              |



| Topic                                        | I don't know | No    | Yes, sometimes | Yes, several times |
|----------------------------------------------|--------------|-------|----------------|--------------------|
| Economy, taxes and pensions                  | 6.5%         | 18.7% | 50.9%          | 23.9%              |
| Online scams or fraud attempts               | 3.9%         | 27.4% | 46.1%          | 22.6%              |
| AI generated content that pretend to be real | 12.2%        | 17%   | 44.8%          | 26.1%              |

**Table A9.** Belief on statement (target group)

| Belief                                                                                                                          | 1     | 2     | 3     | 4    | 5    |
|---------------------------------------------------------------------------------------------------------------------------------|-------|-------|-------|------|------|
| Vaccines have serious side effects that governments hide                                                                        | 57%   | 25.7% | 9.1%  | 6.5% | 1.7% |
| Immigrants receive more state aid than native citizens                                                                          | 64.8% | 23%   | 3.9%  | 4.8% | 3.5% |
| Climate change is a natural, a cyclical phenomenon not related to human activities                                              | 73.9% | 13%   | 3.9%  | 6.1% | 3%   |
| Renewable energy is invading natural and agricultural areas (removing the "green" elements under the guise of "green" policies) | 52.2% | 25.2% | 10%   | 8.3% | 4.3% |
| Extreme weather is man-made and engineered by elites                                                                            | 84.3% | 7.8%  | 6.1%  | 0.9% | 0.9% |
| The Agenda 2030 want to ban meat consumption                                                                                    | 73%   | 16.5% | 6.5%  | 3%   | 0.9% |
| There is a secret plan by hidden elites to control the population                                                               | 57%   | 24.3% | 12.6% | 4.8% | 1.3% |
| Aircraft contrails contain chemicals that are deliberately released                                                             | 81.7% | 13.5% | 3%    | 0.9% | 0.9% |

**Table 10.** Behaviour when realizing a content is disinformation by countries (target group)

| Country | I do nothing | I get angry but don't act | I notify the people I share it with | I look it up in a reliable source | I unfollow/stop trusting the person who shared it |
|---------|--------------|---------------------------|-------------------------------------|-----------------------------------|---------------------------------------------------|
| Germany | 1.6%         | 7.9%                      | 36.5%                               | 43.7%                             | 10.3%                                             |
| Italy   | 9.5%         | 4.8%                      | 16.7%                               | 45.2%                             | 23.8%                                             |
| Croatia | 38.5%        | 23.1%                     | 0%                                  | 23.1%                             | 15.4%                                             |
| Spain   | 19.1%        | 0%                        | 34%                                 | 29.8%                             | 17%                                               |

**Table A11.** Behaviour when receiving a news by countries (target group)

| Country | I delete it | I forward it or share it directly if it seems interesting | First, I check the information in other media or online | I usually ignore it or don't do anything | I don't use Whatsapp or social media | I read it but I don't share it until I'm sure |
|---------|-------------|-----------------------------------------------------------|---------------------------------------------------------|------------------------------------------|--------------------------------------|-----------------------------------------------|
| Germany | 4.8%        | 0.8%                                                      | 23%                                                     | 23%                                      | 16.7%                                | 31.7%                                         |
| Italy   | 4.5%        | 2.3%                                                      | 18.2%                                                   | 15.9%                                    | 11.4%                                | 47.7%                                         |
| Croatia | 0%          | 0%                                                        | 0%                                                      | 53.8%                                    | 15.4%                                | 30.8%                                         |
| Spain   | 4.3%        | 10.6%                                                     | 23.4%                                                   | 14.9%                                    | 4.3%                                 | 42.6%                                         |

**Table A12.** Self-perception (target group)

| Country | Very capable | Quite capable | Not very capable | Not capable at all | Don't know |
|---------|--------------|---------------|------------------|--------------------|------------|
| Germany | 9.5%         | 50.8%         | 37.3%            | 0%                 | 2.4%       |
| Italy   | 11.4%        | 61.4%         | 20.5%            | 0%                 | 6.8%       |
| Croatia | 0%           | 38.5%         | 46.2%            | 15.4%              | 0          |
| Spain   | 2.1%         | 40.4%         | 44.7%            | 6.4%               | 6.4%       |

**Table A13.** Media literacy training by country (target group)

| Country | Yes, through a course or workshop | Yes, informally | No, never |
|---------|-----------------------------------|-----------------|-----------|
| Germany | 10.3%                             | 63.5%           | 26.2%     |
| Italy   | 11.4%                             | 52.3%           | 36.4%     |
| Croatia | 7.7%                              | 30.8%           | 61.5%     |
| Spain   | 17%                               | 57.4%           | 25.5%     |

**Table A14.** Game popularity by country (general)

| Game                          | Germany | Italy  | Croatia | Spain  |
|-------------------------------|---------|--------|---------|--------|
| Bingo                         | 14.24%  | 13.98% | 12.09%  | 15.59% |
| Blackjack                     | 6.06%   | 10.34% | 6.70%   | 3.86%  |
| Crossword/Word Search         | 20.38%  | 22.32% | 17.48%  | 19.17% |
| Jeopardy                      | 6.06%   | 2.11%  | 5.72%   | 0.43%  |
| Ludo/Parchís                  | 1.23%   | 1.05%  | 16.01%  | 18.03% |
| Snakes and Ladders            | 6.78%   | 3.45%  | 5.88%   | 5.15%  |
| Solitaire                     | 14.58%  | 18.58% | 11.60%  | 15.45% |
| Trivial Pursuit               | 14.53%  | 13.03% | 8.17%   | 14.31% |
| Who wants to be a millionaire | 16.14%  | 15.13% | 16.34%  | 8.01%  |

**Table A15.** Game popularity by country (target group)

| Game                          | Germany | Italy  | Croatia | Spain  |
|-------------------------------|---------|--------|---------|--------|
| Bingo                         | 13.56%  | 12.68% | 16.06%  | 16.06% |
| Blackjack                     | 4.86%   | 7.75%  | 8.51%   | 2.29%  |
| Crossword/Word Search         | 23.28%  | 30.28% | 25.53%  | 21.56% |
| Jeopardy                      | 3.24%   | 0%     | 0%      | 0%     |
| Ludo/Parchís                  | 1.21%   | 1.41%  | 21.28%  | 20.18% |
| Snakes and Ladders            | 4.45%   | 0.7%   | 2.13%   | 3.21%  |
| Solitaire                     | 15.99%  | 22.54% | 8.51%   | 16.97% |
| Trivial Pursuit               | 15.99%  | 13.38% | 4.26%   | 14.68% |
| Who wants to be a millionaire | 17.41%  | 11.27% | 17.02%  | 5.05%  |

