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ATTITUDES OF LOCAL COMMUNITIES TOWARDS THE LOCATION OF 5G NETWORK INFRASTRUCTURE INVESTMENTS

Abstract

ICTs have spurred socio-economic change and ushered in the era of the information society described as a new dimension of human and social relations in the 21st century. For the efficient and effective use of information, the introduction of the 5G data transmission standard is essential. The 5G network is distinguished from previous networks by the fact that it uses millimetre waves, which require more densely distributed transmitters – the base stations of telecommunications networks. Although the process of introducing 5G in Poland has been underway since 2017, it is still causing public emotions and location conflicts. The concerns of local communities stem from the widespread view of the negative impact of 5G on human health and the environment spread by a worldwide activity calling itself the 'Stop 5G' movement. The aim of the research was to diagnose the level of knowledge of the surveyed group about 5G and to identify reasons for concern and motives for opposition to the planned investments. The study was conducted using a diagnostic survey method. The public expects the technology to be available and reliable, seeing it as a better quality of life and an opportunity for the country's development, but at the same time 45% of the people surveyed expressed opposition to the introduction of 5G. The lack of acceptance increases when it comes to the immediate area (51.5% of respondents expressed opposition) and 29% of respondents protest against the location of 5G architecture elements or intend to do so. Acceptance of the investment and simultaneous disagreement with its location in the immediate surroundings, as well as location protests, are referred to as a manifestation of the NIMBY ('Not In My Backyard') syndrome. The attitude of opposition stems from concerns about health, safety, the environment or property values. As 5G is a relatively new technology, many people do not have sufficient knowledge about its operation and potential risks.

Keywords: *5G, social conflict, NIMBY syndrome, information and communication technologies, local protests*

Streszczenie

Technologie teleinformacyjne stały się bodźcem do zmian społeczno-gospodarczych i zapoczątkowały erę społeczeństwa informacyjnego określanego jako nowy wymiar stosunków międzyludzkich i społecznych w XXI wieku. Do sprawnego i efektywnego wykorzystywania informacji niezbędne jest wprowadzenie standardu przesyłu danych 5G. Sieć 5G odróżnia od poprzednich sieci fakt wykorzystywania fal milimetrowych, które wymagają gęściej rozmieszczonych nadajników – stacji bazowych sieci telekomunikacyjnych. Pomimo, iż proces wprowadzania 5G w Polsce trwa od 2017 roku, wciąż wywołuje emocje społeczne i konflikty lokalizacyjne. Obawy lokalnych

społeczności wynikają z szeroko rozpowszechnionego poglądu o negatywnym wpływie 5G na zdrowie ludzi i środowisko rozpowszechnianego przez ogólnoświatowa działalność określająca się jako ruch Stop 5G'. Celem badań była diagnoza poziomu wiedzy badanej grupy na temat 5G oraz identyfikacja powodów obaw i motywów sprzeciwu wobec planowanych inwestycji. Badanie prowadzono metodą sondażu diagnostycznego. Społeczeństwo oczekuje dostępności i niezawodności technologii, upatrując w tym lepszej jakości życia i szans na rozwój kraju, jednocześnie jednak 45% badanych osób wyraziło sprzeciw wobec wprowadzania 5G. Brak akceptacji wzrasta jeśli chodzi o najbliższą okolicę (51,5% respondentów wyraziło sprzeciw) a 29% badanych protestuje przeciwko lokalizacji elementów architektury 5G lub zamierza to robić. Akceptacja dla inwestycji i jednoczesny brak zgody na jej lokalizację w najbliższym otoczeniu, jak również protesty lokalizacyjne są określane jako przejaw syndromu NIMBY *(„Not In My Backyard). Postawa sprzeciwu bierze się z obaw o zdrowie, bezpieczeństwo, stan środowiska czy wartość nieruchomości. W związku z tym, że 5G jest stosunkowo nową technologią, wiele osób nie ma wystarczającej wiedzy na temat jej działania i roli w rozwoju społeczno-gospodarczym kraju oraz potencjalnych zagrożeń np. cyberatakami na instytucje.*

Słowa kluczowe: *5G, konflikt społeczny, syndrom NIMBY, nowoczesne technologie, protesty lokalne*

Introduction

The development of the modern world is inextricably linked to information and communication technologies (ITCs). They provide a reliable, flexible and fast and efficient way of disseminating information. They make access to knowledge cheaper and more widespread. Robotisation, artificial intelligence, machine learning and related technologies are significantly shaping many spheres of modern life. Underpinning these processes is the development of the internet, in particular the latest generation of 5G, evolving to share millimetre waves (*mmWave*). Millimetre wave technology has become a cornerstone of the development of innovation and modern economies. We experience its impact every day, from faster internet to advanced medical imaging. According to the Cisco Annual Internet Report (2020), by 2023, 5.3 billion (66% of the population) will be Internet users, including 22.5 million in Poland. More than 70% of the global population (5.7 billion people) will

have access to mobile connections. The number of connected devices will increase from 18.4 billion in 2018 to 29.3 billion in 2023, a goal to be achieved thanks to, among other things, fifth-generation (5G) standard radio communication networks. In Poland, preparations to provide internet access with data speeds of at least 30 Mbps began in 2017. (Bieńkowski et al., 2020, p. 245). As part of these activities, it is planned to provide all urban agglomerations and major transport routes with uninterrupted access to the 5G network by 2025. It should be emphasised that the 5G network is an essential element for the implementation and development of IoT (*Internet of Things*), autonomous transport, Industry 4.0, *Smart Cities*, as well as for the occurrence of further digital transformations necessary for economic development.

The widespread availability and adequate speed and capacity of the Internet requires appropriate infrastructure (architecture) (transmitters, masts), the location of which often arouses social emotions – it is met with acceptance or generates spatial conflicts. The source of location conflicts is the incompatibility of goals and interests of individual stakeholders. For while the benefits associated with the investment will be felt by broad social groups, the possible inconveniences associated with the investment will be felt mainly by local communities. Hence, the actions undertaken are aimed at changing the location and technological solutions of investments under construction or planned. The occurrence of location conflict concerns a wide range of investments. One could mention energy projects, airports, motorways, prisons, landfills, housing estates, refugee centres, etc. This is no different for 5G infrastructure. The research was inspired by a global movement calling itself the *Stop 5G* movement, whose activists often went so far as to vandalize cell towers (Satariano and Alba 2020; Scheuer 2020). This activity has not bypassed Poland either, the most glaring example of which was the adoption by the councillors of the city of Kraśnik of the petition of the association *Coalition Poland Free of 5G*, the so-called anti-5G resolution. After a wave of jokes and ridiculous memes that appeared on the Internet, the councillors promptly decided to withdraw from the controversial resolution. The same was suggested by representatives of the Ministry of Digitalisation, who explained that the petition was full of scientifically unsubstantiated facts ('fake news'). The concerns of local communities stem from the widespread belief that 5G has a negative impact on human health and

the environment, particularly in the context of conspiracy theories related to the COVID-19 pandemic (Bruns et al. 2020; Sturm and Albrecht 2020; Jenal et al. 2021). Less frequently emphasized, however, is public awareness of the role of modern technologies in socio-economic development. This article aims to fill this research gap and focuses on the question of whether the level of awareness regarding 5G increases local communities' willingness to accept new investments and reduces protests against them. As such, the aim of the study was to:

1. Diagnosis of the level of knowledge of the surveyed group about 5G and millimetre wave technology,
2. identification of motives of approval of the localized investment and in the *near – far* arrangement
3. identification of motives of opposition to the planned or implemented investments,
4. diagnosis of propensity to protest.

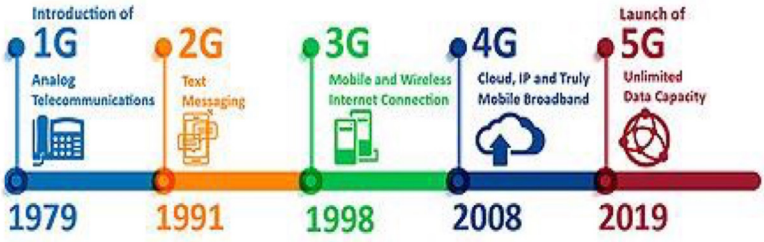
The research was conducted in January 2025. The survey questionnaire was made available on survey forums. The investment of the introduction of the 5G network concerns the vast majority of citizens, so a non-exhaustive survey method was used. The survey sample consisted of 265 people. The survey form consisted of closed single-choice and multiple-choice questions.

Survey results and discussion

The opening question of the survey questionnaire referred to the familiarity of the respondents with the term 5G network. Among the 265 respondents, only 13 people do not know what a fifth-generation network is, while the rest – 252 people – declared knowledge in this area. Among those who did not know the concept were those over 55 years of age, people who are pensioners/retirees.

The introduction of the 5G standard, using millimetre waves, was preceded by the development of earlier technologies (Figure 1.).

Figure 1. *Evolution of mobile networks*

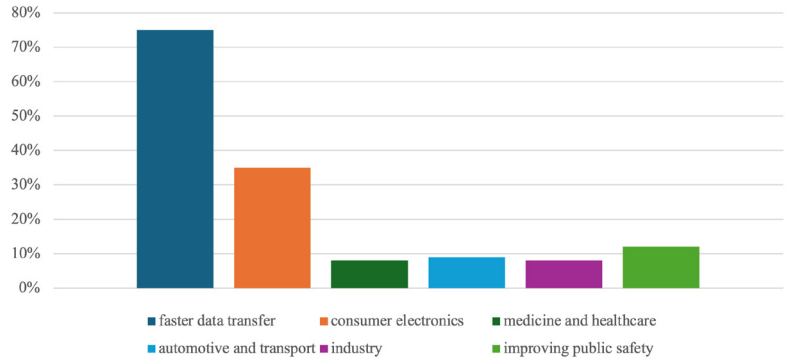


Source: Pisarov and Mester 2020.

1G was an analogue mobile network introduced in 1979. The phones did not use SIM cards and phone numbers were encoded in the devices themselves. The first generation of digital mobile technology was 2G, such as CDMA (*Code-Division Multiple Access*), GSM (*Global System for Mobile Communications*) and TDMA (*Time-division multiple access*). Interestingly, it was only then that 1G technology received its name. 3G brought higher connection speeds to the Internet – from 200 kbps to several Mbps (kilobits are commonly used to refer to bandwidth and data rates, then expressed in kilobits per second,abbreviated as kb/s, kbit/s or kbps). Introduced in 1998, it was key to the development of wireless voice communication over the internet, video calling and mobile TV. 4G technologies such as WiMAX (*Worldwide Interoperability for Microwave Access*) and LTE (*Long-Term Evolution*) were officially introduced in 2008. They were the next step in the development of mobile networks, offering internet connection speeds of hundreds of Mbps and even gigabit levels. 5G technology brings three new elements – higher speeds, lower latency and the ability to connect multiple devices simultaneously as sensors and IoT elements. The 5G system is a non-autonomous network as it still requires active 4G support for initial connection. Currently, 4G/LTE technology allows 300 megabits per second. The fifth-generation standard will allow 10,000 megabits (i.e. 10 gigabits) per second to be transmitted, a more than 30-fold increase in speed (Tomaszewska and Fila 2021, pp.148-150). The next-generation network will increase bandwidth and spread Internet access and minimise delays in data exchange. It still needs several years of development to become a fully autonomous network (Pisarov and Mester 2020, Dangi, 2022, pp.1-2).

The next question referred to familiarity with the term millimetre waves and their use in practice, in areas other than 5G mobile telephony. The question allowed the selection of several answers. Among the applications listed were: faster data transfer, medicine and healthcare, automotive and transport, industry, improving public safety, consumer electronics (Figure 2.).

Figure 2. *Knowledge of millimetre wave applications in practice*



Source: *Own elaboration based on survey.*

75% of respondents indicated faster internet, 35% consumer electronics. Only 8 – 12% of respondents indicated other applications. This clearly demonstrates a lack of knowledge on the subject. Effective misinformation is pushing out of awareness the fact that we have been using millimetre wave applications on a daily basis for a long time. Only anti-5G activity and its detrimental effects have broken through into the broad public consciousness. The introduction of the new technology has many benefits. Speed, reliability and low latency will contribute to development:

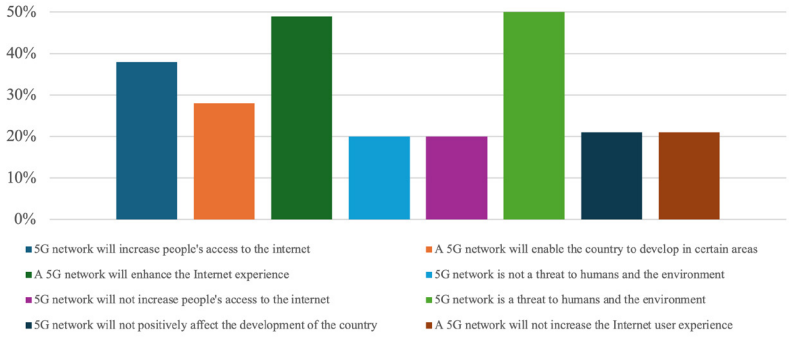
- medicine, thanks to the possibility of using very advanced devices and machines that need to be connected to the internet.
- transport through the creation of more efficient traffic control systems for individual vehicles and public transport vehicles.
- agriculture through the introduction of *smart agriculture*, which involves the continuous monitoring and analysis of crop data.

- the autonomous vehicle industry because of the availability of a mobile network everywhere, which will make it possible to incorporate a smart safety system into every car.
- smart cities, which use technology to make the lives of citizens easier and better, in addition to lowering costs.
- energy systems that will become easier, greener and cheaper to manage (www.hualianxingtong.com/).

Accordingly, respondents were asked how the introduction of 5G network investments would affect people, the environment, technology and the country. The question allowed several answers to be selected, as there are opportunities and threats associated with each investment (Figure 3.).

The most frequently chosen answer was , *The 5G network is a threat to people and the environment*, selected by 50% of people. Almost half of the respondents – 49% – believe that the 5G network will increase the comfort of Internet use. 38% of respondents believe that the 5G network will increase the population's access to the Internet, and 28% see in the effects of the introduction of the 5G network an opportunity for the country's development in various areas of life. The remaining responses were selected with similar frequency: by 20-21% of those surveyed.

Figure 3. *Respondents' attitude towards 5G investments*



Source: own elaboration based on survey.

The most frequently selected combinations of several answers contained arguments in favour of the introduction of 5G networks (e.g. increased accessibility, comfort of Internet use and development of the country) at the same time including an answer about the negative impact of the new technology on human health and the environment. The combinations containing only one answer were dominated by answers about the negative impact of 5G networks on human health and the environment. Analysing the responses, it can be concluded that the respondents feel and understand the need for 5G network investments and hope for increased accessibility, comfort of Internet use and development of the country. Unfortunately, the expected positive effects are dampened by the fear of an unknown – or rather unnamed – technology, which is mostly used on a daily basis. Research by Soler and Ejdys (2023) shows that mobile networks and technologies based on them are now an extremely important part of social, economic and cultural life. Some of the most common uses of mobile networks in society are communication, commerce, financial management including e-banking, entertainment, education, transport management. It is also an extremely important tool in everyday life, helping people to communicate with each other, manage their finances, conduct business, and enjoy various services and entertainment. Modern technology is mainly used to contact family or friends (telephone, video calls) (73% of respondents). Navigation (online maps, route mapping) (48%) and e-banking (47%) are mentioned in second place, followed by online shopping (43%), uploading content using social networking sites (42%) and doing official business over the Internet (41%). Compared to the survey conducted two years earlier, the percentage of respondents using online medical services (telemedicine) has definitely increased. In 2021, this type of service was indicated by 17% of respondents, while in 2023, as many as 27%. This is undoubtedly the result of a pandemic situation where the majority of the population has been forced to use this form of service, which in turn has now created new opportunities arising from previously acquired skills. (Soler and Ejdys 2023, p. 4).

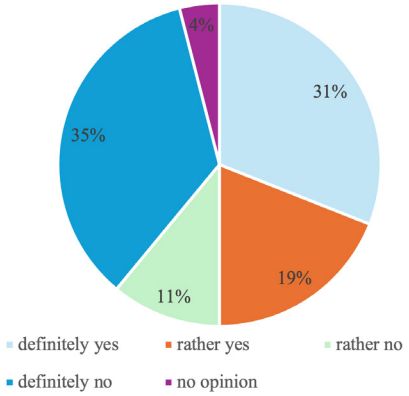
Above all, information technology is irreversibly transforming traditional business, with the web becoming part of the operation of both fixed and typically online businesses such as electronic business (e-business), electronic commerce (e-commerce), and electronic marketing (e-marketing). Once we enter the

Internet age, separating business from the information technology industry is impossible (Lukash 2015, p.384). And finally, a phenomenon that has spread globally as a result of the Covid-19 pandemic that modern technology has enabled is remote working and learning and digitisation in public offices.

This also applies to sources of information. When asked what sources respondents draw their knowledge on 5G from, 82% indicated the Internet. Other people play an important role in getting up-to-date news, with as many as 49% of respondents indicating them as their source of information. Television or radio is a source of data for 26% of the people surveyed (for 90% of people over 56, this is the only source of information), and 17% of respondents get their knowledge from their own experiences. Only 7% of people get their information from newspapers, and 5% of respondents have no source from which to draw their knowledge. Analysts at the Kosciuszko Institute, in collaboration with the Digital Poland Foundation, in a report entitled: '5G Opportunities, threats, challenges', released in early May 2020, indicate that '5G technology will be the next evolution in wireless connectivity. Compared to previous generations of mobile networks, it will provide up to 20 times faster data transfer speeds, significantly reduce communication delays (down to one millisecond), and increase the number of devices connected to the network (up to one million devices per square kilometre)" (Siudak, 2020, p.6; Tomaszewska and Fila, 2021, pp.148-150).

Despite the ubiquity of the use of mobile networks and technologies based on them in social, economic and cultural life, the answers to another question about respondents' agreement with the introduction of 5G networks in the country are puzzling. 31% of respondents want and agree to the introduction of the new network in the country, 19% rather agree. 35% of respondents disapprove of the introduction of the new technology in the country, 11% do not have a definite point of view, but lean more towards an attitude of opposition to the new technology (Figure 4.).

Figure 4. *Approval of the introduction of 5G networks in the country*



Source: own elaboration based on survey.

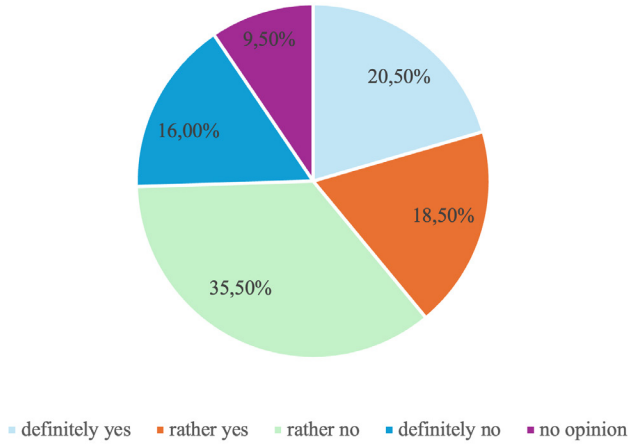
When there is a contradiction between the parties, and at least one of them wants to realise its goals despite the opposition of the others, conflict arises. According to social conflict theory, social conflict is a situation or process in which at least two social entities are linked by antagonistic psychological relations or antagonistic interactions. Definitions of conflict formulated by representatives of various scientific disciplines emphasise selected aspects of conflict: emotional, personality, perception, behaviour, attitudes, norms, values, interests, roles played (Fink 1968; Schmidt, Kochan, 1972; Domachowski 1995). It is noteworthy that almost half of the respondents do not want the development of a new network in the country, but previously more than 80% of the respondents indicated the Internet as a source of information.

Inherent in the development of 5G networks is the construction of telecommunications network base stations (5G architecture). These investments have generated considerable controversy in the country. From the moment the plans to introduce the new technology were announced, protests by local communities against the construction of base stations in their surroundings began. On the Internet and on social networking sites, sites associating opponents of the new technology began to emerge, providing guidelines on how to effectively conduct a protest against the location of a mast in the immediate vicinity (e.g.: stop5g.com.pl). Local authorities have also become involved. Some protests have died out, while

some are still going on today, e.g. in Zakopane in Krzeptówki (www.onet.pl informa cje/onetkrakow/gorale-boja-sie-szkodliwe-promieniowania). When asked about respondents' consent to the construction of 5G network masts in the country, 45% of respondents do not agree with the construction of telecommunication stations of the new network in the country, 43% agree with their construction. The breakdown of responses to this question is similar to that for the question on consent to the introduction of 5G networks in the country. However, a higher percentage of those who are undecided appears (12%).

The next two questions were addressed to people living in localities, where a 5G network mast has not been located or investment plans have been made to build a base station. These questions were also answered by people who do not know whether a fifth-generation network mast has been located in their immediate vicinity. The group answering these questions comprised 175 respondents. The first, related to the attitudes of the people surveyed towards the construction of 5G network base stations in their immediate surroundings. 39% of people agreed (of which 20.5% strongly agreed), with more than half of the people surveyed expressing opposition to the issue. 9.50% of respondents have no opinion on this issue (Figure 5.).

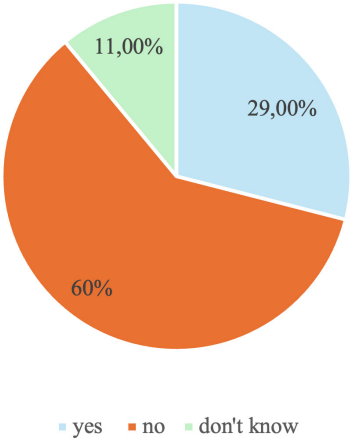
Figure 5. *Approval of the introduction of 5G networks in the nearest area*



Source: Own elaboration based on survey.

The next question referred to protests related to the location of a 5G network mast, if it were to be located in the immediate vicinity of the respondents. 60% of the group would not take part in protests, 29.3% of the group, would take part in protests. 10.70% of respondents do not know if they would take part in protests. Those with an attitude of opposition who want to take part in protests are fewer than those who do not want the introduction of a new technology, but would not take part in protests (Figure 6.).

Figure 6. *Participation in protests against the construction of a 5G network mast*



Source: Own elaboration based on survey.

Disagreement with the location of an investment in the immediate vicinity, as well as location protests, is often described as a manifestation of the occurrence of the NIMBY syndrome (an acronym for '*Not In My Backyard*'), which is when opinion polls show support for the implementation of a particular type of investment, but arousing resistance from the community living in the region where it is to be built. The occurrence of this syndrome is therefore encountered when during the investment process a conflict erupts between the common good and the good of the local community (Strzałkowski and Suchomska 2019, pp.10-11). This involves an attempt by individuals to gain benefits from the use of a given good while shifting the costs of its provision to other residents. This is because individuals are interested in using the public

good, but at the same time do not want to suffer the consequences associated with the investment required to provide it (Frączek 2011, pp.65-66).

Similar phenomena described in the literature are types of conflicts such as BANANA (*Build Absolutely Nothing, Anywhere Near Any Place*) – a radical objection against building or LULU (*Locally Undesirable Land Use*) – conflicts over unwanted land uses (Pawłowska 2010, p. 54).

Scientific interest in the NIMBY syndrome and other types of conflict dates back to the early 1960s. In Poland, the development of this phenomenon was noticed after 1989. Polish society, with the changes in the normative, ideological, political system, etc., experienced an increase in the possibility to articulate its demands, hence the early 1990s were characterised by an increase in collective protests, also in the area of spatial conflicts (Michałowska 2008, p.142). Examples of investments that provoke violent local protests are energy constructions (nuclear and wind power plants, CO_2storage facilities) (Frączek 2011, Massa 2019, Uji et al. 2021), transport (railways, airports, motorways) (Dembińska 2011, Wontorczyk and Tracz 2014), environmental (landfills and waste incineration/sorting plants) (Kraft and Clary 1991, Kikuchi and Gerardo 2009), penitentiary (prisons, refugee shelters, drug and alcohol rehabilitation centres, AIDS patients) (Takahashi 1998, Głowacki 2022), mineral extraction sites (Badera 2010), educational (schools, gymnasiums, student dormitories), entertainment buildings (discos, video game halls), erotic service buildings (escort agencies, sex shops), sports (gymnasiums and sports facilities), health facilities (hospitals and health centres). Dembińska (2011, p. 44) notes that initially the NIMBY syndrome concerned planned developments. However, over time its impact has expanded. Nowadays, it also occurs in the case of already completed investments or investments under construction. Telecommunications infrastructure is essential in any inhabited area. Telecommunications facilities mainly include telecommunications transmitters, television transmitters and GPS transmitters. In the last few decades of intensive development, this type of investment can also be counted as causing social and location conflicts. Most community concerns revolve around the belief that electromagnetic fields have negative effects (Dmochowska-Dudek 2011, pp.40-41). A common mistake regarding conflicts over a new investment is to hastily classify them as NIMBY-type protests, which simplifies the

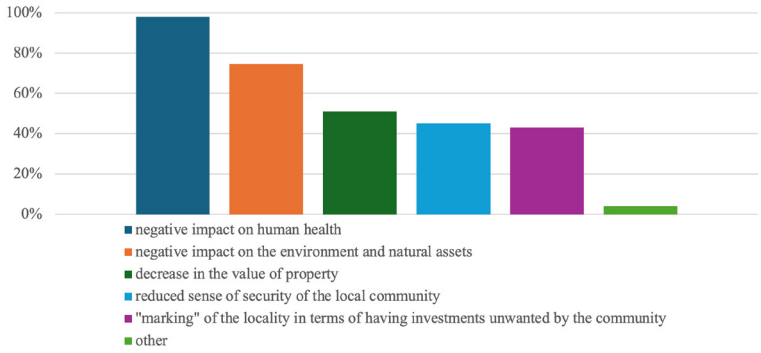
complexity of the conflict and makes it more difficult to resolve. Above all, the use of the NIMBY label presupposes in advance the irrationality of residents' opposition (Stankiewicz 2012, p. 31).

A factor reinforcing community resistance to the location of unwanted investments in their immediate surroundings is the fear not only of their harmful impact, but also of a process of social labelling. The attaching of a negative label to such spatial areas in effect also stigmatises the people living within them (Wontorczyk 2015, pp.139-140). It is therefore important to know the reasons for community protests. Dear (1992) lists the following reasons for local communities' concerns:

1. decrease in property values – the threat is related to the local population's belief that property and plot prices will decrease after the construction of ,'unwanted' facilities in the area. The local community fears reduced property values and less interest from investors and potential buyers. This fear is fully justified in the case of developments such as airports, motorways and landfills.
2. personal safety – the threats are related both to the fear of disaster (such as airports, nuclear power plants), but also to the fear of people using the investments in question (shelters for the homeless, centres for migrants or addicts, etc.).
3. Deterioration of the quality of the environment – the threat is associated with littering of the environment, emission of harmful substances and gases into the environment, deterioration of air quality or contributing to increased global warming (motorways, landfills, sewage treatment plants).

Respondents were therefore asked which effects of the introduction of 5G networks they were most concerned about. The question was aimed only at those who believe that the investment of the new network will have negative effects. 151 people responded, the question was a multiple choice question (Figure 7.).

Figure 7. *Effects of the introduction of the 5G network*



Source: Own elaboration based on survey.

The most frequently selected answer was the negative impact of the network on human health, marked by 98% of the group. The next most frequently selected impact was the negative impact on the environment, indicated by 74.5% of the group. A decrease in property values was indicated by 51% of respondents, 45% of the group indicated the possibility of a reduced sense of security in the immediate area. 43% of respondents were concerned about the branding of the locality in terms of having a development unwanted by the community. Responses of ‚other' included impacts such as ‚High harm to 5G networks preventing normal human life' and ‚Massive decrease in intellectual and health levels in humans and animals', which were indicated by two people.

The main causes of conflicts, including social protests are access to information (too poor information on planned investments – changes in space or the manner of project presentation incomprehensible to non-professionals), errors related to investment procedures (e.g. sham public consultations) and problems resulting from the policy of local authorities (e.g. lack of communication with the public). Kaźmierczak and Szczepańska (2022, p.1) additionally point to the lack of the so-called visual communication in the area of spatial planning.

Summary

ICTs have spurred socio-economic change and ushered in the era of the information society, described as a new dimension of human and social relations in the 21st century. There are many definitions of the information society, varying according to the paradigm adopted. Information – its course, emergence and proliferation, as well as the impact of information on the life of modern man and society – is considered the primary determinant For the efficient and effective use of information, the introduction of the 5G data transmission standard is essential. The 5G network is distinguished from previous networks by the fact that it uses millimetre waves, which require more densely distributed transmitters – stations base stations of telecommunications networks. Although the process of introducing 5G in Poland has been underway since 2017, it still causes public emotions and location conflicts. The public expects the availability and reliability of the technology and connectivity, seeing it as a better quality of life and development of the country, but at the same time 45% of people surveyed expressed opposition to the introduction of 5G. The lack of acceptance increases when it comes to the immediate neighbourhood (51.5% of respondents expressed opposition) and 29% of respondents protest against the location of 5G architecture elements or intend to do so. Acceptance of the investment and simultaneous disagreement with its location in the immediate surroundings, as well as location protests, are referred to as a manifestation of the NIMBY *('Not In My Backyard'*) syndrome. The 5G network infrastructure thus becomes a NIMBY object. The attitude of opposition stems from concerns about health, safety, the environment or property values. As 5G is a relatively new technology, many people do not have enough knowledge about its operation and potential risks. However, the current consensus among scientists is that the use of any mobile data technology in accordance with current regulations regarding exposure to electromagnetic fields – is safe for human health. However, misinformation about 5G is still widely spread on the Internet, from which respondents mainly draw their knowledge. To combat misinformation about 5G, many governments, regulatory agencies and community organisations are taking action. For example, in May 2020. The European Commission announced

a funding programme for 5G research projects to ensure that the new technology is safe and does not harm human health or the environment. One of the simplest ways to combat disinformation is therefore through education and raising awareness and resistance to disinformation.

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