

GoSIV! – Smart Industrial Villages

Support SMEs innovation and initiatives
within Smart Industrial Villages (SIV),
an approach for renovating
traditional urban industrial areas.

D4.1. The FabLab – the innovative hub for creativity

The Regional Development Agency in Bielsko-Biala, Poland

Contents

1. The story of the area	3
2. Location and key facts	4
3. The needs for renovation of the area	7
4. Activities performed during Go SIV project and outcomes	8
5. Appendix 1 – the invitation to the Open Day of FabLab (the poster)	11

1. The story of the area

Wapienica is a district of the city of Bielsko-Biała. The oldest historical note found comes from 1568. Until the end of the second world war Wapienica was the suburb village of the rural character with only a few private enterprises. The majority of inhabitants were Germans (84% in 1921). It was merged with the city in 1977.

The 19th century brought the industrial revolution also to Wapienica. Initially the dominating industry was textile one. The dynamic development brought also the railway station in 1888 and in 1893-1894 the first water intake was located in Wapienica for the water company of Bielsko-Biała. Around 1930 the dam was built to create an artificial lake for the water capture for the city

The bloom of the business was observed around the railways, i.e. in the northern part of the today's district. This determined its later industrial character. In 1921 the Factory of Saws and Tools was created. The company endured the changes until today and operates now owned by the global corporate.

The southern part gained its current touristic and environmental nature in the end of 19th century when the mountain shelters were built on the peaks and walking trails were marked.

After the second world war the industrial investments were continued and the rural character was lost.

The political changes after the second world war cause that the business was nationalised and operated thusly even to 1990s. In the post-war period, several companies were established and located in the district, giving the inhabitants workplaces. Majority of the companies were of the heavy and construction industry; Fiat Auto Poland has also its premises here.

In 2001 a subzone of Katowice Special Economic Zone was created. Over 150 companies invested in the Zone, according to the City Council of Bielsko-Biała, including the startups in the Beskidy Technology Incubator created in 2006 by RDA Bielsko-Biała. The number of jobs was estimated at 32 thousands. Many companies created after the collapse of socialism (1980s) took over the buildings of the withdrawn or liquidated former national companies. A big percentage (nearly 50%) operated in the logistics. In the very Zone, the leader is Eaton Automotive with neighbouring Hutchinson Poland and TI Poland.

Many projects were implemented in the area of Wapienica. The scope of areas is very vast.

The projects developed in the northern part focus on business development and on the protection of the environment as a part of the preparation of the industrial infrastructure.

The following major investments and infrastructure projects were concluded in the northern part of the district:

- Inclusion of Wapienica to the Special Economic Zone of Katowice in 1996 as a subzone; the main investors are Eaton Automotive Systems Sp. z o.o.
- The construction and the development of the Beskidy Wholesale Stock Market Ltd started in 1996. In 2002 the company changed the name to the Beskidy Commerce Stock Company to reflect its business profile better. The company is mixed public-private ownership. It offers the surface for rental for the storage, workshops, garages and offices for private traders. It also hosts one of the biggest open markets in the region working every Sunday. Total surface covered was gradually extended with time to total 11,34 ha. The role of the open market grew in 2018 in relation to the ban for commercial trade on Sundays introduced in Poland and it constitutes a replacement for closed shops and hypermarkets.
- The creation of the Technology and Industry Park in Wapienica - the concept born in 1999 and worked on together with the Office of European Integration of the Silesian Marshalship and the City Council of Bielsko-Biała;

the Park covers 5.12 ha and is located by the express road S52 (Cieszyn-Bielsko-Biała). Main investors are Hutchinson Poland, RDA Bielsko-Biała and Multiform Dariusz Krywult. Creation of the Park was covered in a big part from PHARE 2000 funding.

- Construction of the Beskid Technology Incubator (BIT) – the business complex was finished in years 2005-2006 – three-level building with 3660 sq. m of the surface; the building hosts the training and conference centre for 150 participants, the accommodation for 33 persons in the hotel rooms of the business standard, rental surfaces accommodating 30 companies, the restaurant and comfortable parking spaces.
- Upgrading the road infrastructure in 2018 – vast works are being finalised regarding the quality of roads and the traffic organisation; the project of construction of the fast traffic road through Wapienica towards Cieszyn will proceed in 2019 – more lanes will be created and a general improvement of the traffic is planned.

Projects implemented in the southern part have in majority the environmental or touristic character – they focus on the preservation of the natural environment and the forests, which constitute the biggest area in the city of Bielsko-Biała and District Bielsko-Biała, and on the enhancement of the touristic values of the area, particularly the Wapienica Park and the dam surroundings. Multiple bike paths were built and renovated over previous several years and four educational trails in the Park was created with the instructive boards.

Notwithstanding, socio-economic projects were also developed aiming at the improvement of the life quality, educational upgrade of chosen social groups, revival of the entrepreneurial spirit, business and job creation. The meaning of the projects is very high particularly for these estates in the district, which are located towards in the northern part and which had a reputation of the degraded area with increased level of the crime and the presence of social pathologies. Thanks to the joint effort of the community and municipal welfare agency, the projects resulted in the significant upgrade of the area. Many activities were addressed to elderly inhabitants, including mountain walks, joint leisure meetings by the bon fire, the celebrations of the Seniors' Day, a choir and the computer skills course for 60+.

2. Location and key facts

2.1. Geography and natural resources

Wapienica is the most populous and the vastest district of the city with nearly 10.5 th inhabitants living on the area of over 2.5 ha. Of this surface, only about 11% constitutes inhabited area¹ and ca. 70% are forests².

The district is divided into two parts by the powiat-level road joining Bielsko-Biała with Cieszyn on the Czech-Polish border:

- southern area with nature park and beginnings of the mountain walking trails educational routes for children and adults, bike paths and water reservoir (Wapienica Dam), which has also touristic value as a view point; associated commonly with recreation and with wealthier inhabitants; 4 preservation parks operate in Wapienica for the unique vegetation threatened by the extinction, and 5 nature and landscape parks.

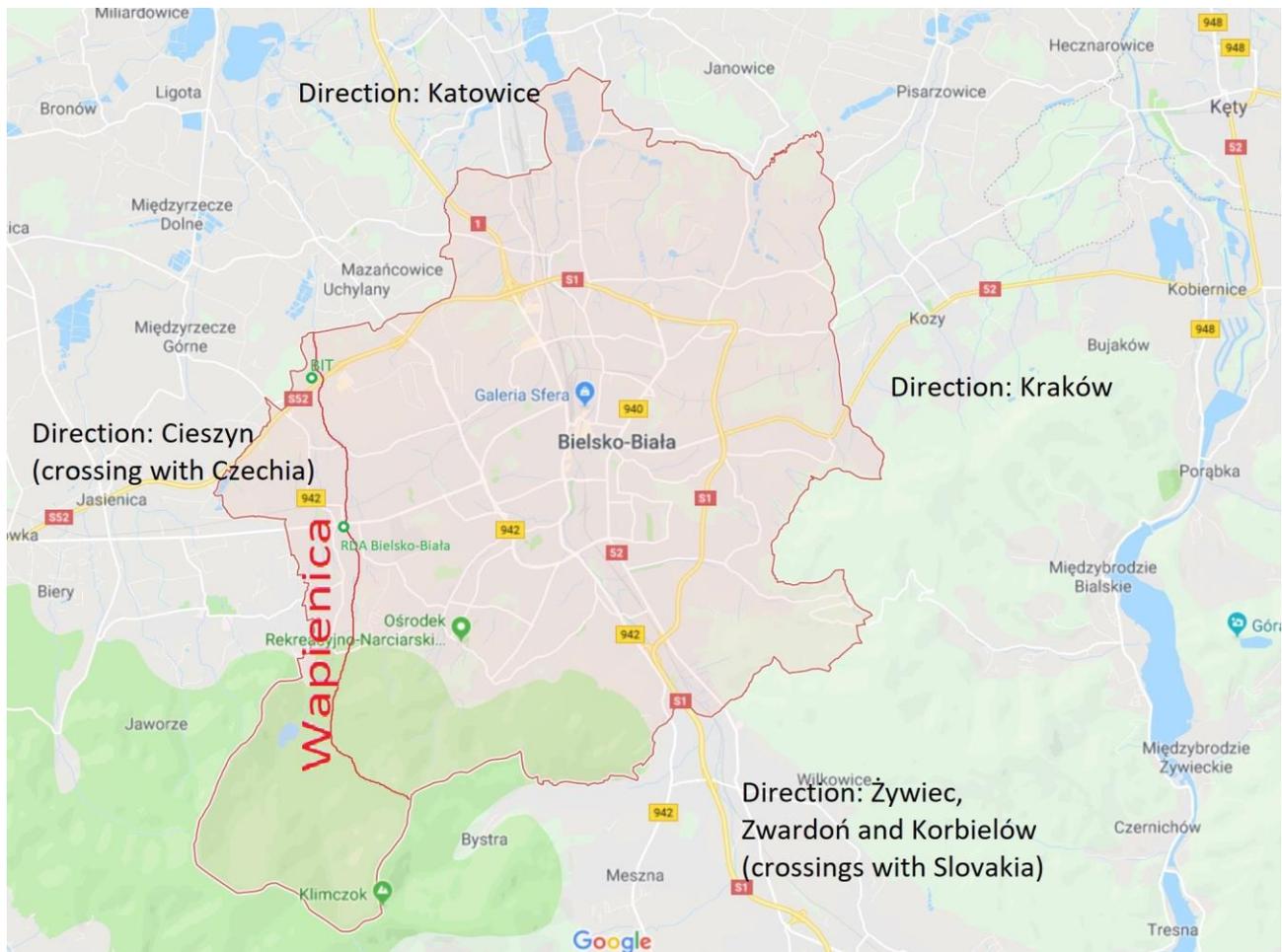
¹ Own calculation based on „PROGRAM REWITALIZACJI OBSZARÓW MIEJSKICH W BIELSKU – BIAŁEJ NA LATA 2007 – 2013” Bielsko-Biała, November 2007 - <https://www.bielsko-biala.pl/bb/dzialy/polityka/doc/prom.pdf> accessed 14/08/2018.

² <http://wapienica.info/page/4/> accessed 14/08/2018.

- and northern part, which has strong business character with the industrial park and the biggest open market in the subregion. The northern part hosts multiple social housing buildings and the centres of social welfare for homeless and people with addictions.

The road to Cieszyn (Cieszyńska Street) is an alternative route to Cieszyn with the secondary meaning to the express road S1 going through the northern part of the district. The historical railway station is not in use from 2009.

The district is served by 7 bus lines, of which 5 have their end stops nearby the very centre of the district, one (No. 16) extends to the tourist southern area and the beginning of mountain trails and one (No.24) goes through parts of northern estates. One of the lines (No 10) is extended to the business Park at the request of the companies including RDA Bielsko-Biała as the owner of the incubator. The frequency of the extended routes serves the Incubator 10 times per day – in the early morning hours, midday at the shift change and in the late evening (second shift end).



2.2. Infrastructure and business

An industrial park in Bielsko-Biała located in the northern part of Wapienica was created in 2005 as an initiative of the Bureau of European Integration of the Silesian Marshalship and the City Council of Bielsko-Biała. The main reason of the creation of the Park was the creation of the jobs. Together, the governments and the Agency developed the concept of the Park of Industry and Services, which is managed from the very beginning by the

Agency. The grounds are owned by the city and the buildings and infrastructure belong to various companies leasing the grounds from the City. The Park itself does not have its own organisational structure. There is no specialisation with some domination of auto-motoindustries. Beskid Technological Incubator built in 2005 – 2006 by the Agency is also located in the Park. BIT is a three-floor building of 3660 m² of the usable surface, equipped with the training and conference centre for 150 persons with the full accommodation (33 sleeping places) and with the office surface rented by 30 companies.

Since 2009 the Technology Accelerator is operated by RDA as the complementary activity to the incubator to extend the support services to the next stage of the life of innovative companies with a big potential. The concept was to create the competitive advantage to innovators who do not find the potential capital or funding as in other countries or the Western Europe.

The third stage carried on by RDA Bielsko-Biala was a creation of the FabLab to inspire young innovators, students and crafters to use the most modern technologies for their products and services. The FabLab creation complements the incubator service stimulating the processes preceding the establishing the company – thus, the innovators receive the support on each stage of the idea development – from the inspiration and learning stage, through the setup of the business to the investment and development of the more mature innovations in bigger, industrial scale.

One of the most recent projects of a significant revival value for the district of Wapienica “Bielsko-Biala connects people” was implemented in years 2015 – 2017 by the City Social Welfare Centre and citizens groups and organisations from 4 districts in Bielsko-Biala, including Wapienica. The project was co-financed by European Union and by the City of Bielsko-Biala. The actions were addressed to unemployed, clients of social welfare centres, financially disadvantaged etc. The purpose of the project was the reinforcement of the social integration and the prevention of the social exclusion by the support for participation in the labour market. In case of Wapienica, the project included several activities addressed to seniors, in this art and craft activities, organising days of seniors, occasional meetings of seniors, organised tours and many others. Some of these activities (particularly art and craft) were initiated in the previous decade and revived and continued thanks to the support of the project. Events such as Days of Wapienica with concerts were also organised in cooperation with citizens and the district council.



The renovated buildings of former Beskidiana by Cieszyńska St., Bielsko-Biala, Poland – currently the Regional Development Agency



The Beskid Technological Incubator (BIT) in Bielsko-Biala

2.3. Socio-economic features

The community of Wapienica is characterised by a strong citizens’ initiative and involvement in various local and global events and movements, for example during the Day of Earth, citizens are invited to join their forces in the collection of abandoned wastes in Wapienica (particularly but not solely the forest parts) – this is the answer for the illegal waste dumping in the park and on the forests edges. Many cultural and sportive events are organised on the regular yearly basis. Local schools prepare concerts and performances for the summer festivals and the local citizens Culture Centre invites local choirs to perform on the concerts. Wapienica group of modellers with its history going back to 1960s is famous for the skills and their models of planes and ships made of carton and plastic.

Urban centre population (Bielsko-Biala)	171 500
Urban Area (Bielsko-Biala)	124.5 sq. km
District Area (Wapienica)	25.6 sq.km
Population density (Wapienica; inhab. per ha)	4.03
Position	The outskirts of the city
Type of enterprises	Car and construction industries, wholesale and trade enterprises, convenience shops, sport and recreational activities

3. The needs for renovation of the area

As mentioned above, many companies were closing down or moving to more attractive areas with more modern premises since 1990s. The most numerous liquidations were observed in the governmentally owned sector. Apart from the derelict buildings and estates, the loss of the jobs could be observed. The big shopping centres constructed in the end of 1990s drew the customers away from smaller retailers. Additionally, several welfare centres were located in Wapienica – two hostels for persons with addiction problems, the temporary accommodation for homeless and the estate of social housing for the disadvantaged families. The accumulation of the social issues caused that the big part of the district in the North got the bad reputation and was avoided by the citizens. The prices of the property were low but the environment did not encourage new developments.

With the effort of the City acting together with the RDA Bielsko-Biala, the business was encouraged to invest and to create their premises. Together with activities of incubator, accelerator and the hotel services addressed mostly to business and organised customers, the character of the Northern part of the district was changing. The strong initiative of the citizens contributed very strongly with arranging the green areas, playgrounds for children, cleaning the district and organising leisure activities.

A very strong stress on the recreational functions in Wapienica causes that the entrepreneurship is pushed out from the southern part of the district. The business and trading activities focus in the northern part. The extreme specialisation can lead to the situation when the local trade and gastronomy has the sufficient supply of the customers only during the weekends with the good weather and during the touristic seasons. This leads to the

uneven and uncertain profitability. The symptoms are already visible – several smaller bars and local shops were closed down and two main cafes scaled down the offer; the bus schedules are altered and adjusted to the hours of companies and schools opening and scarce otherwise, which additionally affects negatively the visitors traffic in the area and isolates the inhabitants. It is crucial to maintain the economy and to prevent the marginalisation of the district.

4. Activities performed during Go SIV project and outcomes

4.1. Prestudy and the conclusions:

Regional Development Agency in Bielsko-Biala had developed the support mechanism for 3 stages of the development of the innovative enterprises: the Fab Lab to stimulate innovative ideas, the incubator for startups and the enterprises in their initial phase and the technology accelerator for the introduction of the innovative ideas to the market for SME sector. A similar process was initiated in the southern part of Wapienica – in 2017 the FabLab was moved to the buildings of RDA by Cieszyńska Street to raise the level of innovativeness of the inhabitants and to offer the advantageous education opportunities. The project follows the awareness rising and popularisation of FabLab in the closest neighbourhood.

RDA in Bielsko-Biala performed the analysis of the profile of the district, interest declared by the projects proposed for implementation by the City. We analysed also the current urban development trends on the local, regional and international levels and experiences from activities carried so far. The approach was to recognise the behaviour patterns and the overall economy status and trends.

Social factors: Based on the intense local activities in the area of the community development, art, craft and ICTs indicate that this directions will be explored further by Wapienica stakeholders. The activities are carried primarily via schools and the district culture centre – a branch of the city culture centre.

Natural environment: big parts of the southern Wapienica have the touristic character where the clean natural environment is the key asset; the preservation of these assets will maintain the priority in the plans of urban development as well as among the inhabitants: .

Business factors: Particularly the northern part creates opportunities in the employment in the global leading companies using the most modern technologies based on ICT and requiring IT skills. Slow decrease of the companies and retailers can be observed in the centre and southern part of the district. The care for the clean environment and the smart strategic specialisation for the region and for the city (tourism, ICTs and automobile industries) imply the choice of the key enhancing technologies (KETs) to focus on - ICTs.

Demographic factors: Seniors constitute a significant group of the local community, which in future can be a risk driver for the downgrade of the district due to the depopulation. Preventive measures include the creation of a good educational infrastructure for children to encourage young people and in particular married couples with kids to settle down in this attractive area.

Global trends: the rapidly growing role of digitalisation is observed. Flexibility, personalisation and a conscious focus on the local delivery have become the drivers in activities, especially among younger generations. Social and environmental awareness and responsibility are one of the choice criteria.

Conclusions from the prestudy: in order to maintain the moment of the growth in Wapienica and to prevent deceleration and a risk of the decline, activities should be offered to the community to inspire the so-far developed activities and which would give the advantage to the young persons on the existing and future job

market with the particular focus on the existing business potential and in line with the values preserved and cherished by the community (i.e. clean environment, developed tourism, culture and art activities with and for the local community).

Based on the factors above, the Agency suggests that further development of skills in the area of IT should be addressed. The new programmes should be tailored to the local preferences and demand from the local businesses.

Multidisciplinary nature of 3D modelling and 3D printing addresses the trends, fills the gap in the current educational programmes and opens new dimensions to the hobbies such as model building, craft and culture for any age group; albeit, the main stakeholders are young generations (children, youth and young adults).

The training and the retail services of the 3D modelling and printing should be offered to the public in the affordable manner on day-to-day basis. The offer should include the awareness building, demonstration of the possibilities and ease of operating the software and equipment, training and possibility to use the services of modelling and printing for persons who have not acquired the appropriate skills. In case such offer cannot be delivered free of charge, the prices should be maintained on the minimal level, e.g. covering only the direct costs of the processes.

4.2. Local meetings and open days of Fab Lab

Two meetings were organised in the form of the focus groups in relation to the revitalisation and the revival of the area of Wapienica in Bielsko-Biała, Poland, as a postindustrial area in the suburb of the city.

Parallely, the open day of Fab Lab was organised at the same day.

The idea of the project is to create a model preventing the decline of estates like Wapienica and allowing the intelligent and sustainable development base on smart specialisation. The results of the attempt will be presented as a case study and a practical guide to serve other regions as templates to be used.

The representatives of 4 groups participated in the meetings – the primary education, the inhabitants, representative of the estate council and the local business.

During a loose unstructured discussion the following core issues were raised:

- The quality of the system of education for children as the background for the needs of cooperation with RDA Bielsko-Biala
- Importance of the team work and cooperation
- The lack of publicity of FabLab and the Agency in terms of the closest neighbourhood and the need of advertisement and potential cooperation

The current offer of FabLab activities means a change in the main target audience of the Agency from the local government, organisations and enterprises - to citizens. The fresh look and suggestions offered by the participants of the meeting regarding how to channel the message are very precious input for our farther communication strategy. The communication and dissemination are key factors for the successful implementation of any activities and projects on the local level.

At the closure of the meetings, the participants were invited to the FabLab to experience the discovery of the 3D modelling and printing; in the FabLab they were introduced to the basics of 3D printing and to the methodology of the presentation for visitors, in particular for groups of children and youths.

The dialogue with the community of Wapienica indicates lack of awareness of the FabLab and its possibilities and a very low awareness of the current trends in the digital education. RDA Bielsko-Biala will intensify and continue the educational and awareness raising activities. It is expected that further work will result with the gradual

modification of the local activities and services based on innovative use of digital technologies, including 3D design and printing, usage of new tools in the craft and hobbies of inhabitants, including the local culture centre and the offered courses, which will refer to the modern trends and will respond better to the interests of the youth. This will secure the up-to-date education and will give the inhabitants the advantage on the job market in the future. The immediate expected results include the new offered courses and classes and increase of interest in innovative services from then potential startups as well as potential users of innovative products and services.

4.3. Joint efforts suggested by the participants

The participants declared the will for a cooperation with FabLab on various levels. It was advised that the coalition for Wapienica could be a great opportunity to discuss the role of FabLab for the neighbourhood and possibilities of the contribution. It was stressed that this group has a very high potential thanks to the synergy and a focused cooperation.

Participants were also interested in joining initiatives and projects in future in their scope of mainstream activities. For the closest autumn the following joint initiatives were suggested and are being followed:

- Lessons for pupils of the local schools
- An offer of cooperation will be created for the local Senior Club and Culture Centre
- The Agency could be introduced to the Coalition for Wapienica to invite to the members possibilities of cooperation with the FabLab and organising there presentations, courses, classes and regular services. The Coalition will be suggested to invite the Agency to discuss possibilities of joint projects application and implementation
- Further, regular meetings of the Agency with local players to be organised
- The Agency will consider organising various forms of regular meetings (e.g. morning coffee meeting, business breakfasts etc. to establish the network for further cooperation; such meetings should be beneficial for participants who will be offered an opportunity of finding new customers or ambassadors for joint local initiatives. This idea needs to be discussed also with the Agency's owners to assure that preferential treatment will be created for one district and that it will not be developed at the cost of other revitalised areas (fair play rules and the objectives validation).

4.4. Activities planned by RDA Bielsko-Biała

- Follow-up contacts:
 - Invitation to FabLab for a demonstration session
 - Invitation for the second round of local meetings
 - Organisation of regular meetings for the community members
 - The possibility of cooperation and potential of FabLab to be discussed with other stakeholders during the meeting of the coalition for Wapienica
 - Invitation to the second meeting
- Organising visits of students in FabLab
- Organising more frequent open days of FabLab with a stronger promotion around the area
- Keeping in touch regarding other events
- Sending the information regarding possibility of regular courses
- Investigating of the initiative coalition for Wapienica and potential cooperation in terms of revitalisation

- Increase the frequency of events and intensify the message also in the neighbourhood
- Revise the promotion, media and advertisement messages to align them better with the mission, role and on-going tasks for better performance

5. Appendix 1 – the invitation to the Open Day of FabLab (the poster)


FABLAB
 BIELSKO - BIAŁA
DZIEŃ OTWARTY
środa 19.09.2018 r., godz. 10:00 - 17:00
Bielsko-Biała ul. Cieszyńska 365
 (budynek w głębi podwórka)
 Zapraszamy na dzień otwarty FabLabu
 i zapoznanie się z mobilnym skanerem 3D oraz drukarkami 3D!
 Od godziny 10:00 do 17:00 w dn. 19.09.2018 r. w naszej siedzibie będzie można zapoznać się z sekretami modelowania i drukowania przestrzennego (3D).
 Zapraszamy wszystkich, którzy chcą się dowiedzieć co to jest FabLab i druk 3D, szczególnie dzieci (sugerujemy wiek szkolny!), ale także tych, którzy już zgłębili tajniki tego procesu.
 Opowiemy, wyjaśnimy i zademonstrujemy:

- jak drukowanie 3D można wykorzystać w kuchni, w samochodzie, w rowerze czy w komputerze lub w przygotowaniu unikalnego prezentu dla bliskiej osoby
- jak druk 3D mogą wykorzystać firmy, rzemieślnicy, artyści, architekci i lekarze
- jak działa skaner 3D
- jak wygląda proces przygotowania modelu do druku
- jak wygląda proces samego drukowania 3D.

 Głównym punktem dnia będzie prezentacja i możliwość własnoręcznej pracy z zaawansowanym skanerem.

Zapraszamy!

