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FORMATION PECULIARITIES OF THE SCIENTIFIC AND TECHNICAL POTENTIAL IN THE IVANO-FRANKIVSK REGION

Олег МАЛЯРЧУК

*Івано-Франківський національний технічний університет нафти і газу,
кафедри документознавства та інформаційної діяльності
вул. Оришака, 7, 77300, м. Калуш, Івано-Франківська обл., Україна
e-mail: oleg.malyarchuk@gmail.com*

Оксана КОГУТ

*Івано-Франківський національний технічний університет нафти і газу,
кафедра філології та перекладу,
вул. Оришака, 7, 77300, м. Калуш, Івано-Франківська обл., Україна
e-mail: zagirya.ug@gmail.com
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У статті охарактеризовано процес становлення інженерно-технічної інтелігенції та відповідних організаційних структур (інфраструктури) на прикладі розвитку нафтогазовидобувної промисловості окремо взятої Івано-Франківської області західного регіону Української РСР. Основними в дослідженні стали традиційні принципи історизму, об'єктивності, системності, всебічності, репрезентативності й гуманізму. Мета статті – на основі аналізу наукової історичної літератури і архівних джерел охарактеризувати процес становлення науково-технічного потенціалу та його інфраструктури в Івано-Франківській області у ХХ столітті. Розкрито систему управління “науково-технічним прогресом” країни, республіки, області, яка базувалася на створенні відповідних організаційних структур з координації науково-дослідних робіт. Доведено, що вона вирізнялася із семи західних областей республіки своїм потужним науково-технічним потенціалом, який концентрувався в Івано-Франківському інституті нафти і газу. З розробки низки наукових проблем і зв'язків з виробництвом їй поступалася сусідня Львівська область на яку покладалася місія бути зразком у процесі “соціалістичних перетворень”. За період з кінця 40-х до середини 60-х років ХХ ст. в Івано-Франківській області сформувалася розгалужена мережа наукових установ і організацій, які склали основу науково-технічного потенціалу західного регіону УРСР. Різноманітні за функціональним призначенням і формами діяльності: проектно-конструкторські установи, проектно-технологічні організації, дослідні станції, наукові підрозділи і філії вищих навчальних закладів, які свою роботу спрямовували на розв'язання нагальних економічних проблем краю.

Ключові слова: *Івано-Франківська область, наукові установи, нафтогазова промисловість, інженерно-технічна інтелігенція, економіка.*

Three periods of development are defined in Ukrainian oil and gas (forestry, chemistry) sciences. These three periods are determined by the needs of industry, general level of science and technology, and first of all by the political situation in Ukraine. The first, initial level, in general is concerned with the formation of oil and gas, forestry and chemistry industries and with the specifics of the government action in the Austrian, and then – Polish state systems in the lands of Galicia. The Austro-Polish period was “quite profitable” for the work of Ukrainian (Russian, Rusyn or Carpatho-Russian) researchers. Nevertheless, the work was managed in the interests of the ruling states, and Ukrainian authors gained fame in the same way as Austrian or Polish researches from Vienna, Warsaw and Krakow during this and the next period. The second period was rather long, from 1939 to 1991, and was marked by setting up of many scientific institutions, schools and areas of focus. The characteristic feature of this period was the entry of Ukrainian oil and gas and other sciences into the Soviet (Russian) science. All main research centers that directed the avenues of research and used their main results were located in Moscow and Leningrad. The following Ukrainian scientists in oil field industry were the winners of the Lenin Prize: M. Balukhovskiy, S. Vorobiov, M. Horev, I. Litvinov, L. Palets, S. Cherpak. The State Prize of the Ukrainian SSR was awarded to O. Bohaiets, S. Vitryk, J. Holovatskyi, V. Hlushko, V. Demianchuk, G. Dolenko, L. Kuryliuk, Ya. Kulchytskyi and others. The third stage started with the establishment of Ukrainian national identity.

The following generalized publications have been issued during the period of Ukraine's independence: "Ivano-Frankivsk National Technical University of Oil and Gas. The Names of the glorious contemporaries"¹, "History of the gas industry of Ukraine in the memoirs of contemporaries"², "Ukraine: 20 years of independence"³, "Nafta i Gaz Podkarpacie"⁴ and others. The composite work "Ukrainian Oil and Gas Science. 1899–1999"⁵ briefly outlines the century-old history of Ukrainian oil and gas science and the main stages of its development, pays a tribute to the outstanding figures of the oil science of the past, and defines the perspective directions of its development in the future. The master of the oil and gas industry I. Diiak⁶, scientists R. Mysovych⁷, M. Stasiv⁸, O. Ovcharenko⁹ their publications outlines the process of formation and development of this branch in the 60's and 80's of the 20'th century.

The aim of the article is to characterize the process of formation of scientific and technical potential and its infrastructure in the Ivano-Frankivsk region in the 20th century based on the analysis of scientific historical literature and archival documents.

The object of our research is scientific and technical policy of the state (USSR (Ukrainian Soviet Socialist Republic), USSR (Union Of Soviet Socialist Republics)). The subject is the peculiarity of its realization in the Carpathian region and the creation of appropriate organizational, scientific and production structures.

In the aftermath of the war some affiliated institutions and departments of research institutes were set up in Stanislavskiy Region (from November 9, 1962 – in Ivano-Frankivsk region). Among them there are: Ukrainian department of commercial tests of the All-Union Institute of Drilling Equipment, Department of the All-Union Organization Research Institute, Management and Economics of the Oil and Gas Industry, the Central Association Research Laboratory "Ukrnafta", the affiliated institution of the All-Union Research and Design Institute of the Mineral-salt Production (in Leningrad), the Carpathian Affiliated Institution of Ukrainian Research Institute of Forestry and Forest amelioration named after Academician G. M. Vysotskyi Drawing-and-designing Technological Institute of the Ministry of Forestry and Wood Industry of the USSR (Ukrainian Soviet Socialist Republic), Regional State Agricultural Experimental Station and others. An important feature of the structure of the scientific and technical potential of Ivano-Frankivsk region was that the large majority of scientists worked on solving industrial problems and concentrated in the regional center.

The term "white collars" in the USSR (Union Of Soviet Socialist Republics) occurred in the 1930's and started to spread in the second half of the last century.

The abbreviation EMP (engineering manpower) was commonly used for technical documentation and documents of management and record keeping. Engineers and technicians were combined

¹ Івано-Франківський національний технічний університет нафти і газу. Імена славних сучасників / Швидченко, Л., Виноградова О., Сорока О. та ін. ; гол. ред. кол. Є. І. Крижанівський. Київ : ТОВ Світ Успіху, 2007. 328 с.

² Історія газової промисловості України у спогадах сучасників / Я. С. Марчук, Б. О. Клюк, В. І. Жук. Київ : Такі справи, 2008. 320 с.

³ Україна : 20 років незалежності / за ред. М. Б. Бучка, В. І. Кафарського, І. О. Андрухива, Й. М. Гаха. Івано-Франківськ ; Надвірна : ЗАТ Надвірнянська друкарня, 2011. 276 с.

⁴ Nafta I Gaz Podkarpacia. Нафта і газ Прикарпаття. Краків : Вид-во Інституту нафти і газу, 2004 ; Київ : Наукова думка, 2004. 570 с.

⁵ Українська нафтогазова наука. 1899–1999 / Г. Ю. Бойко, М. М. Братичак, Г. Д. Досин, В. В. Колодій, С. С. Круглов та ін. Львів : Вільна Україна, 1999. 80 с.

⁶ Патріарх нафтогазової промисловості. До 75-річчя Івана Васильовича Діяка. *Геолог України*. 2004. № 3. С. 90–93.

⁷ Мисьович Р. Становлення нафтогазовидобувного управління "Долина нафтогаз". *З історії Долини* : зб. історико-краєзнавчих статей. Долина, 2012. Вип. V. С. 168–223.

⁸ Стасів М. Ю. Нафта, газ і озокерит Прикарпаття. Київ : Державне видавництво технічної літератури УРСР, 1959. 68 с.

⁹ Овчаренко О. Нафтовидобування в Україні періоду кризи тоталітарної системи : історичний аспект промислової політики. *II Міжнародний конгрес українських істориків "Українська історична наука на сучасному етапі розвитку"*. Кам'янець-Подільський, 17–18 вересня 2003 р. Кам'янець-Подільський ; Київ ; Нью-Йорк ; Острого : Вид-во НаУОА, 2007. Т. 4. С. 402–407.



into one social group, comparing higher and vocational school or college education. There are many approaches to the classification of intellectuals, but the most common is the division according to their educational level. Working class intellectuals were divided into the specialists with higher and vocational school or college education, skilled worker, as well as research officers having degrees and academic titles. Thus, according to the classification of A. Sokolov, the Soviet intellectuals were divided into three subcultures: ethical-nihilistic (party classification); ethical, educational and ethical-political, which was in opposition to the regime¹⁰. The level of Party membership was low among the engineering manpower of the western region of the republic, especially among local population descents. However, many well-known representatives of the working class intellectuals succeed in life in the Party and state machinery of the USSR and the Ukrainian SSR.

The number of skilled workers who performed management operations and were engaged in brainwork was rapidly shrinking. There was no problem to get higher education at correspondence departments of the universities. Erudition, “political awareness”, as well as “necessary communications” were the key of getting job. Senior leadership positions – directors and their deputies, chief engineers and mechanics – hold the ranks having Party Membership Card and having permission of the district Party committee, while ambushed agreement of the KGB. Responsibility, the length of service, hard work and professional knowledge were the secondary factors. We should remember that the authorities trusted Ukrainians who married Russian women. The Masterminds encouraged interracial marriages as one of the components of the creation of the “Soviet Union community”.

Teachers, scientists, and artists have been traditionally referred to the ethics and educational intellectuals. However, “white collars” can be partly included to this group of the western region of the Ukrainian SSR. Officialization of the technical society (TS) contributed to the massive involvement of the engineering workers. Thus, the reports of the Ivano-Frankivsk Regional Party Committee indicate that 13 subject matter seminars were held with the leaders of the TS and non-governmental organizations of the working people in 1973. During 1973–1975 various conferences and meetings were held based on the introduction of new technology and advanced technology at enterprises. In 1974 election meetings in 600 organizations of the TS area were held, where they discussed various issues of their activities. Most engineering manpower worked based on their “individual creative plans”¹¹. Since before January 1, 1984, there were 61,900 members of the Ukrainian SSR united in 15 subject matter TS groups¹². “White collars” also belonged to ethic-political group. There were many people passive to the politics. Such an indifference to the authority was revealed in private conversations, certain statements against the global leadership of the Party, the spread of political jokes, the support of the forbidden Greek-Catholic Church and participants of the national liberation struggle who returned from the deportations. They privately or not followed folk customs and religious rites, brought up children according to their convictions, ignored the new Soviet rites. Almost every local family in the Ivano-Frankivsk region has been participants and supporters of the Organization of Ukrainian Nationalists (OUN) and the Ukrainian Insurgent Army (Another monument in honors of Roman Shukhevych, the leader of the Ukrainian Insurgent Army), as well as engineering manpower and skilled workers. This made a certain different from other regions of the republic impression on ideological positions and formed the appropriate system of views, moral norms, life philosophy. There was a system of “double standards” – one for the family and a surrounding community, the other – for “authority and job”.

One of the characteristic features of a Soviet worker was the habit of doing everything based on the principle: “They pretend to pay us, and we pretend to work”.

The main criterion was to do the work in time, but not to perform in an honest manner and qualitatively. As a rule, membership of the Communist Party of the Soviet Union, “sponsorship”, family relations, forelock-tugging, specious nationalism and internationalism helped to get the official career. Engineering manpower was often anxious because of the possible reorganization of the

¹⁰ Соколов А. В. Формула интеллигентности. *Вопросы философии*. 2005. № 5. С. 58.

¹¹ Мальярчук О. М. Соціально-економічні процеси в західному регіоні Української РСР (1964–1991). Івано-Франківськ: Симфонія форте, 2015. 548 с.

¹² State Records of Ivano-Frankivsk region F. P–1. Op.1. Spr. 5002. P. 227.

management or the department to eliminate their posts. Appropriate ministries looked for the ways of improving the sector management and often reorganized their structure and reduced the number of managerial staff. These periodic reforms have fostered mocking questions used by the oilfield workers: “What word starts with “R” and never ends?” – “Reorganization”. However, these reforms did not end with firing from work. Employees were transferred from one job post to another, into another department, section, or created new services¹³.

The selection of specialists for leading positions of all levels was held under the control of the District Committee of the Party and KGB services. Therefore, while hiring for a work, the benefits were given to the arrivals and settled from other regions of the Ukrainian SSR and the USSR, especially the veterans, combatants, and the Party members. Only those persons (even without the necessary education) who were trusted by the KGB could work in the staff offices and in the managerial positions. When they chose the candidates for the office, they provided greater advantage to ideological and political ideas than to a specialist in a certain sphere. This is confirmed by the application forms made by the heads of departments. The Party Committee also made a characteristic, which was sent for the final decision after the approval with the district Party Committee.

The requirement to be a member of the CPSU was spread even to the heads of factory workshop, offices, departments of management, etc. In most cases, it did not lead to a decreasing in the level of professional management, but it was merely an obstacle for people to work, being fundamental in their moral and ideological beliefs, did not give to the temptation of place-hunting. Being a member of CPSU for many was not a result of the perception of communist ideology and morality, they had a desire to improve their welfare, because party members had an advantage in everything.

Graduates of the institutes, held at different positions, could not always easily work with its rules with qualifications and disclaimers. Some people easily continued to work without worrying for the problems, others tried to succeed in scientific or social work, while others needed to increase their professional level in routine work. Establishment of various research institutions promoted self-realization of creative personalities. Thus, the establishment of the Scientific Research Laboratory (SRL) in the oil and gas production department, which later founded “Ukrnafta” Central Research Laboratory in Ivano-Frankivsk, united individuals who were interested in studying the dynamics parameters of the reservoir management. They were not cross functional for oil fields, but were native only to the Carpathian region. Efforts in scientific research contributed to career development¹⁴.

The system of management of “scientific-and-technological advance” in the USSR and the USSR was based on the creation of appropriate organizational structures for the coordination of research work. This system was quite complex and in a bureaucratic manner it was multilevel. At the level of the highest authorities and administration in the republic, everything was carried out using vertical management: the certain committee in the Verkhovna Rada of the Ukrainian SSR, the main economic planning administration and the Council for the promotion of “scientific-and-technological advance”, regional Congress of People’s Deputies, enterprises. At the level of scientific structures – the Academy of Sciences of the Ukrainian SSR – scientific centers and scientific coordination councils in the regions – coordinators of scientific and technical programs among the leading research institutes – enterprises. Regional management of the scientific-and-technological advance as well as in the country was also carried out through the relevant sectoral structures: sectoral ministries and departments, research institutes and enterprises. The constituent system of the state-coordinated process was supported by the certain unions of regional scientific, engineering and technical societies – subject matter and community-based enterprises.

An important component of the state reforms in the later 1960’s was the scientific potential and its infrastructure. The scientific and technical potential covered human resources, material and technical resources, information system, organizational and managerial part. The stretch of research,

¹³ Мисьович Р. Становлення нафтогазовидобувного управління “Долина нафтогаз”. *З історії Долини* : зб. історико-краєзнавчих статей. Долина, 2012. Вип. V. С. 220.

¹⁴ Там само. С. 168–223.



design, design institutes and research departments of higher educational establishments introduced scientific knowledge, realized scientific and technical plans of the Party Soviet regime.

Taking into account the new scientific-and-technological tasks which need to be solved in the oil and gas industry of Subcarpathia, Siberia, Transcaucasia, Pre-Caspian, Tien-Shan-Pamir regions on the basis of the affiliated branch of Lviv Polytechnic Institute (according to the ordinance of the USSR № 919 from December 2, 1966) in Ivano-Frankivsk the Institute of Oil and Gas was set up, which was the only one in Ukraine to prepare specialists for the Ministry of Oil and Gas Industry of the USSR, Ministry of Geology of the USSR. It is the only one institute of higher education in Ukraine that prepared engineers for the oil and gas industry. In 1971 there were 7 thousand students on the five departments of the institute, including 4 thousand students in-person. Annually 600 engineering and technical workers were retraining¹⁵.

In Ivano-Frankivsk region as well as in the republic, there was a large-scale industrial and residential construction, so there was not enough systematic funding for the institute. At the end of the 1970's on the territory of the city of Ivano-Frankivsk and the region there were 14 design institutions that carried out work on the preparation of design estimates for housing and civil engineering, major repairs of the housing stock and objects of socio-cultural usage for various organizations and departments. These are branches of the institutes: "Dipromist", "Ukrremdorproekt", "Ukrkolhosp-roekt", "Ukrkomunremdorproekt", "Ukrzemproekt", a branch of the republican design and technological production association "Ukrsilhosptehsystema", the design department of the project institute "Ukrmedreproekt", the department of the project institute "Ukrkhoppoekt", the design-and-development department of the "Ukrgridreproekt" project institute, estimated departments of public catering and consumer services departments of the regional executive committee.

The named organizations compiled design estimates for various ministries and departments; they also developed the estimate documentation for the construction of agricultural facilities, residential buildings in villages and routes for various purposes.

Research works in the western regions of the USSR for the exploration of oil and oil-gas deposit, and also oil, gas and gas-condensate extraction were carried out by: the Institute of Geology and Geochemistry of Fossil Fuels in the Academy of Sciences of the USSR, the State Research and Design Institute of the Petroleum Industry of the Ministry of Oil Industry, the Ukrainian Scientific Research Institute of Natural Gas "Ukrgazprom". The largest scientific potential has been concentrated in the Ivano-Frankivsk Institute of Oil and Gas. In 1980, out of 422 faculty staff, there were 180 scientific degrees of Ph. D., scholars of associate professors, and 11 were doctors of sciences and professors. 500 full-time employees worked in the research sector. During 4 years of the 10'th five-year plan, the Institute has made research works worth 8.6 million rubles, and 5 million rubles for enterprises of the oil and gas industry¹⁶. The Institute of Oil and Gas trained specialists from 14 specialties of the oil and gas industry. In 15 years, the Institute has trained 9519 engineers in a stationary form of education. In addition, he continued to improve the skills of engineers and technicians¹⁷.

In the early 1970's 60195 specialists worked in the "national economy" of Ivano-Frankivsk Oblast, including 22773 people with higher education, or 37,8%, and 37422 people with an advanced education, or 62,2%. Over the past five years, the number of specialists in the leading industries of the region has significantly increased. In particular, in industry and transport the number of employees with higher education increased by 100%, in agriculture – 70,6%, in trade – 70%, in construction – 21,3%. However, this was obviously not enough. Thus, among headmen of shops, changes, practitioners there were 3369 people, or 30,3%. At the same time 2400 specialists with higher and secondary education worked in the workplace "in specialty". The greatest number of practitioners was among the leaders and specialists of the light industry – 27,6%, food industry – 22,3%¹⁸. In 1973 the number of specialists with higher and secondary specialized education that were engaged in the industry was 14,3 thousand people, including 4,5 thousand people with higher education, and 9,8

¹⁵ State Records of Ivano-Frankivsk region. F. P-1. Op. 1. Spr. 3611. P. 140.

¹⁶ Ibid. Spr. 4617. P. 68.

¹⁷ Ibid. Spr. 4910. P. 6.

¹⁸ Ibid. Spr. 4241. P. 2-3.

thousand with the advanced education. For every thousand workers and employees in 1970 there were 27 people with higher education, in 1973 this number was equal to 37 people¹⁹.

Due to the lack of specialists with higher and advanced education, engineering and technical positions were often held by persons without technical education, but who had experience in practical work ("practice"), as well as those who held responsible positions in the Party-Soviet system. It was considered that the middle and first-line management positions can be held by persons without special education. The main criterion was the ability to work with people and "political literacy". This has made it possible to improve the qualitative and quantitative representation of the specialists in some way.

The Communist Party showed great consideration for political work at the place of production, since it was believed that success is determined by the ideological and educational work in the team. From the individual shop party units at the initial stage of the formation organizations grew into a large group of communists with a Party Committee headed by the secretary. The secretary of the Party Committee, who does not hold a production position, was a highly paid worker in the management. His salary was at least 80% of the salary of the head of the department, and granting a diploma of engineer, he became the first contender for the post of Chief Engineer or Head of Administration. The prospect stimulated the secretaries of Party Committees for career growth.

Admission to the Communist Party was supervised. The proposal to join the CPSU was received by those who had a "clean" biography that means that their relatives do not have hostile attitude to the Soviet authority. The party regulated its social structure, adhering to a certain ratio of workers, the collective peasantry and those who were attributed to the intellectuals. The party organization kept an eye on the "battle reserve" and the Komsomol as "assistant". As a party organization, the Komsomol organization was headed by a secretary released from production issues, whose salary was relatively high.

In the educational work the share of responsibilities relied on the so-called women's councils (or "female councils") that were public bodies for the protection of women's rights in the workplace. The head was elected by the female workers, with the approval of the Party Committee and the leadership. Official duties as well as responsibilities of the head of the women's council often fell on the personnel department workers. The worker elected as the head of the women's council became the "first lady" of the enterprise.

Trade union organization whose member was obliged to be everyone played a great role in the life of workers. The "School of Communism" was considered the communist ideology of the trade union. Trade union committee headed by a chairman managed the trade union life. Chairman's candidacy, recommended by the leadership and the party organization, was chosen by the delegates of the trade union conference. All the governing bodies worked closely together and were dependent on their actions. The fate of the trade union chairman after the re-election was determined by the leadership and the Party Committee. The trade union conference formally adopted a collective contract, which specified the obligations of employees towards the administration and vice versa. These obligations have stayed within labor legislation, and also took into account the normative documents of the relevant ministries, which regulated the payment of labor, working conditions, leisure, etc.

The trade union formally intervened in production problems through the so-called permanent production meetings, and later through the council of labor collective. All these measures should have helped to attract the personnel to solve public, technological, and management issues of the enterprises. As noted by R. Mysovych, the corresponding member of the Ukrainian Oil and Gas Academy, former employee of the State Oil and Gas Enterprise "Dolynanaftogas": "However, the suggestions and recommendations of these public "management" units did not have and could have neither novelty nor creative features. They, in the best case, confirmed the need of measures developed and recommended by management production services... The next step in demonstrating the involvement of workers in the search for production reserves in the oil industry was to form a council of the labor collective, which was structurally somewhat more sophisticated than the previous one, but the working methods were the same. The truth is that the chairman of the labor collective council received

¹⁹ State Records of Ivano-Frankivsk region. F. P-1. Op. 1. Spr. 4241. P. 108-109.



formal authority to sign the production reference letter of the person proposed by the party committee to the position of director of administration²⁰.

According to estimates by the party ideologists, the most urgent task of trade unions was to organize a comprehensive socialist competition, various forms of patriotic undertakings. All these measures had to demonstrate the full-throated citizens' support of the decisions made by the congresses of the CPSU and plenums, and to provide the development of Soviet patriotism. The leadership and party organizations have constantly initiated the introduction of new improved forms of competitions. For this purpose a Laboratory of Scientific Labor Organization was created at the Oil and gas production department. The specially developed standard of the enterprise defined the criteria and methods of assessment the creative contribution of engineering and technical workers and employees in the enterprise development. The corporate standard developed under the name "Professional passport of a specialist" was introduced into the production life of the the Oil and gas production department collective "Dolyna-Neftegaz" in 1977. With the adoption of a specialist's passport, the work of engineers and technicians in determining the winner of social competitions was assessed by the sum of points drawn from the eight criteria defined by the passport: the increase in qualifications and in the ideological and political level, the propaganda of the Marxism-Leninism ideas, scientific and technical and economic knowledge, etc. It should be noted that the implementation of a specialist's creative passport nevertheless encouraged many workers to pursue economic and technological research, some of which subsequently used the collected material for writing dissertations²¹.

On the orders of the regional committees and the party's district committees every year engineering and technical workers, employees, workers, students, schoolchildren were involved into agricultural work on the kolkhoz truck farms. They took flax, mowed the grass, plucked the garden, mowed up straw, cut the cabbage, picked up potatoes and dug up beets. Often people were not adapted for agricultural work. Besides, the chefs were actively involved in the construction of livestock farms, production facilities.

Compared with the period in 1975 the volume of research work in the republic went up 1,8 times. In 1982 it amounted in 242,5 million rubles, also including 225,8 million rubles "on the subject of the economy". If during the years of the tenth five-year plan 15,7 thousand works were implemented and the economic effect was 1,63 billion rubles, then only in the two years of the eleventh 6,6 thousand works were implemented with an economic effect of 900 million rubles²². The development and exploitation of fundamentally new machines and equipment, technological processes was abruptly slowed down in the late 80's of the twentieth century. A separate scientific study requires the participation of engineering and technical workers in the western region in the revival of national-religious life in the latter half of the 1980's. As at November 1989, the People's Movement of Ukraine for reconstruction was institutionalized in all regions of the USSR. According to the regional party committee, the total number was about 77 thousand people. The bulk of them were engineers and technicians (22,3%), creative community (14,9%), teachers (13,4%), academics (4,3%), and middle managers (3,6%). At the same time, 60% was accounted for the western regions, 25% for the central, 12% for the southern and only 6% for the eastern²³.

Thus, in the western region of the Ukrainian SSR in the second half of the twentieth century the scientific and technical potential was created, which solved the topical issues of economic development. Scientific institutions were mainly engaged in the implementation of industrial and technical developments to improve the production capacity of industrial facilities without sufficient prediction of the final results impact on the environment. In the 60's and 80's of the twentieth century scientists, engineers, employees, workers made a significant contribution to progress in science and technology. Powerful scientific potential has been concentrated in polytechnic institutes, research and

²⁰ Мисьович Р. Становлення нафтогазовидобувного управління "Долина нафтогаз". *З історії Долини* : зб. історико-краєзнавчих статей. Долина, 2012. Вип. V. С. 183–184.

²¹ Там само. С. 187.

²² State central records of the highest bodies of the state power of Ukraine. F. 1. Op. 24. Spr. 2550. 70 p.

²³ Малярчук О. М. Соціально-економічні процеси в західному регіоні Української РСР (1964–1991). Івано-Франківськ : Симфонія форте, 2015. 170 с.

drawing-and-designing institutions. The leading position was deservedly taken by the higher technical educational institution, the Ivano-Frankivsk Institute of Oil and Gas, which carried out extensive scientific research and training of future specialists. At the same time, the ratio of scientific investigation that was carried out on the basis of agreements with industrial enterprises and various organizations increased annually. The Institute of Oil and Gas has become the center of technical science both in the region and in Ukraine. The development of the economic complex in the western regions required further technical modernization, development and implementation of new technologies in production, scientific organization of labor and management.

Oleh MALYARCHUK

*Ivano-Frankivsk National Technical University of Oil and Gas,
Department of Records Management and Information Activities,
7 Oryshchaka St., 77300, Kalush, Ivano-Frankivsk region, Ukraine
e-mail: oleg.malyarchuk@gmail.com*

Oksana KOHUT

*Ivano-Frankivsk National Technical University of Oil and Gas,
Department of Philology and Translation,
7 Oryshchaka St., 77300, Kalush, Ivano-Frankivsk region, Ukraine
e-mail: zagirya.ug@gmail.com*

Summary

The article deals with the process of establishment of engineering and technical clerisy and the corresponding organizational structures (infrastructures) on the example of the development of the oil and gas industry in Ivano-Frankivsk region – the Western region of the Ukrainian Soviet Socialist Republic. The main points of the research are the traditional principles of historicism, objectivity, systematicity, comprehensiveness, representationism and humanism. The purpose of the article is to describe the process of forming the scientific and technical potential and its infrastructure in Ivano-Frankivsk region in the twentieth century which is based on the analysis of scientific and historical literature and archive sources. The system of «scientific and technical progress» management of the country, the republic and the region has been revealed, which is based on the establishment of appropriate organizational structures for the coordination of research works. It has been proved that the clerisy differs from seven western regions of the Republic in his powerful scientific and technical potential, which was concentrated in Ivano-Frankivsk Institute of oil and gas. Ivano-Frankivsk region is behind the neighboring Lviv region in the development of a number of scientific problems and production communications; it has been thought to be a sample in the process of the «socialist transformations». During the period from the late 40's to the mid 60's of the twentieth century an extensive network of scientific institutions and organizations in Ivano-Frankivsk region has been established that constituted the basis for the scientific and technical potential of the Western region of the USSR. The design and engineering agencies, design and technological organizations, research stations, research units and branches of higher educational institutions are various in the functional use and forms of activity, that have directed their work at solving the urgent economic problems of the region.

Keywords: *Ivano-Frankivsk region, scientific institutions, the oil and gas industry, engineering and technical clerisy, economy.*

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