
Cases of the Hungarian Cluster Development

By SZILASI, Peter Tamas – PANAC Cluster Manager and KALCSÚ, Zoltán – PANFA Cluster Manager

Duality of the Hungarian Economy – barrier for sustaining the economic growth in Hungary

It was in the late 90's when the network-based economic development methods got in the headlight of interest in Hungary. After almost a decade after the economic and political transition in Hungary, the traditional driving forces of Hungary's fast economic growth started to be losing their effect.

The growth that was mainly fuelled by the investments of foreign companies started to slow down. The traditional Hungarian economy could not respond quick enough to the new requirements conveyed by the newly settled companies, mainly in the form of contractual requirements for supplying.

Due to the inability of the Hungarian owned companies to joint the global co-operation through the local representatives of the global or international companies, a dual character of the Hungarian economy has been developed. There are two distinguished sectors. While the first contains the strongly export oriented, usually foreign owned large companies, the second cover basically domestic SMEs produce mainly for inward markets.

The foreign owned companies were mainly operating like islands within Hungary, without having considerable effect on their economical environment. They brought new technologies but they hardly integrated to the local, regional economy. They kept working together with their existing supplier network, considering their Hungarian companies only as relocated manufacturing sites. These sites had no responsibility neither over their strategy nor purchasing or product development. Due to this the level of local content and the Hungarian value added remains rather insignificant, for example in mechanical engineering the typical level of local content is under 15%.

The traditional Hungarian brands were mostly unable to survive the collapse of their traditional markets. Their producers, the flagship companies of the Hungarian economy were either bought out by their foreign competitors, went bankrupt or were sliced up into smaller units typically not having the sufficient size to become a player in the global marketplace. The remnants of these companies likewise most of the Hungarian owned SMEs could be characterized by operating with outdated technology and management.

The almost completely missing business relation between the two sides was protecting the knowledge and technology transfer. Further burdening this situation the level of official contacts and co-operation between the high-tech companies and the institutions of the higher education was also very weak. The level of R&D spending was extremely low both on the company and on the national level, and most of the earlier operating R&D institutions had been reduced the size and depth of their operation.

In this context clusters and the idea of a cluster based economic development was introduced as a possible method of vitalizing these business and scientific connections and to assist in fuelling an innovation based, intensive development phase of the Hungarian economy, thus helping the spreading the benefits of the economic growth.

From the year 1999, more and more researchers have published books and articles on the potentials of clustering in Hungary. In year 2000 networks and regional clusters appeared in the government economic policy. The Pannon Automotive Cluster was founded, as a pilot-project with a high-level of involvement of the Hungarian Government. In the framework of the Szechenyi Plan, the

nation's economic development plan, that was started in May 2000, among the regional development priorities the regional clusters subprogram provided financial assistance for the establishment and development of the clusters management and the operation and the services of these organizations. Between January 2001 and December 2002 19 cluster initiatives had received support through this grant-scheme, up to 100 thousand Euro per application.

On the regional level, it was the West-Transdanubian region that first realized the importance and potentials in clustering. The idea of a cluster based economic regional development strategy had been first appeared in the Regional Innovations Strategy of the West-Transdanubian region published in the spring of 2001.

Clustering at West-Transdanubia – The region of initiatives

The economic development of the Western Transdanubian region is above average, the GDP per capita is the second highest in the country, following directly the Central Hungarian region that includes Budapest, the nation's capital and its agglomeration. The region's economic structure is complete, it stands on a number of pillars and ranks above other regions in terms of attracting foreign capital, the ratio of industrial investments and industrial export.

While the West-Transdanubian region only lies on 12% of the territory of Hungary, and have only 9.8% of the total population of the nation, based on 2001 figures it is responsible for 11.2% of the nation's GDP (1 468 billion HUF), 18.8% of the total industrial production (2 356 billion HUF), 19,1% of the total investments (167 billion HUF), and 23,4 % of the total export realized from Hungary.

The above data illustrate well, that Western-Transdanubian Region's task and objective shall not be that of crisis management, rather the maintenance and further strengthening of the economy's ability to renew itself.

In order to decrease the vulnerability stemming from the high mobility of foreign capital – i.e. if the region wants to avoid that the multinational companies relocate from Western-Transdanubia for even cheaper workforce, and in order to sustain the region's competitiveness, it is essential that a transition takes place from the existing economic development model. The current model relies on the attraction of foreign capital involved in low complexity production using the low-cost labour performing simple tasks. The new innovation-driven economic development model should be based on competitively priced skilled labour force that is involved in the development and production of complex products, continuous innovation and further attracting as well as internally develop R&D and innovation oriented companies.

Western-Transdanubia is prepared and capable of introducing a number of international successful economic development tools in order to ensure that the region further strengthens its capability of general economic renewal taking advantage of today's favourable processes. Among the Hungarian Regions Western-Transdanubia was the first to work-out and document its Regional Development Program, that has already prepared according to the methodologies used in the European Union, in year 2001. In the same year it has published its Regional Innovation Strategy Program, that was based on the RITTS-RIS methodology.

The region is also considered a pioneer in Hungary on clusterization. Identifying the most competitive economic sectors and the program of forming regional industrial clusters in all five identified sectors – automotive, wood, electronics, thermal and fruit - was one of the key findings of the Region's RIS program. In order to integrate the work of the independent cluster organizations as well as to harmonize their work with the goals of other regional or county organizations the Region has also initiated the Pannon Business Initiative. Furthermore, as the

latest initiative of Western Transdanubia, the elaboration on the regional technology foresight has been started.

The Regional Development Council has considered the introduction of these methodologies, as acts with utmost importance. All of the above initiatives, including the forming of the 5 regional clusters, has received significant subsidies, from the Region's extremely limited decentralized funds. The spending on these tools were looked as **igniter** money to spark the region's development processes, and to mobilize additional public and private funds.

Pannon Business Initiative – The program for regionally integrated economic development

The efforts to establish and operate the Pannon Business Initiative (PBI) wish to exemplify a well organized, harmonized and regionally integrated economic development model. Through its operation it can effectively promote the region's competitiveness in the long run.

The PBI was established on October 2001, when the Western-Transdanubian Regional Development Council, the Regional Tourism Committee and the West-Pannon Regional Development Co. signed a co-operation agreement for setting up and operating this initiative.

The objectives of the Co-operation:

Through its operation the Pannon Business Initiative should contribute to:

- the establishment of an attractive, innovative economic environment in the Western Transdanubian Region;
- strengthening the internal economic cohesion in the region;
- developing the region's general renewal capability;
- the establishment of organizational structure necessary to solidify the networks and the clear definition of tasks divided among the participating organisations

The Pannon Business Initiative wishes to promote:

- a network-like development of sectors with a competitive edge in the region;
- the establishment of integrative connections,
- the definition of regional economic priorities for the distribution of state subsidies,
- the compatibility of clusters operating in the region.

The operative, organisational tasks of the PBI are carried out by the Western Transdanubian Regional Development Agency Non-Profit Company. Apart from the founders, the membership of the Pannon Business Initiative consists of the region's industrial parks, business-, innovation-, and incubation centres, chambers, county employment centres, regionally or locally active associations, or non-profit organizations, and naturally the cluster organizations.

The clusters operating in West-Transdanubia are all based on the same organizational principles. These were tested and fine-tuned during the establishment and operation of PANAC. These experiences were later effectively used in the process of setting-up PANFA, and the other clusters under the PBI network. Despite of the same roots, the individual clusters are showing significant deviation in their goals, activities, geographical scope of operation or even in their organizational structure. These deviations are mainly due to the different natures of the respective industries, while another important factor is the competences of the organization responsible for the operative tasks of the cluster.

The Pannon Automotive Cluster (PANAC)

Founding of PANAC

PANAC, as a pilot cluster-project in Hungary, was founded in December 2000. The founding document, a Letter of Intent for Co-operation was signed by five of Hungary's most prestigious automotive companies (Audi Hungaria Ltd, Opel Hungary Ltd, Hungarian Suzuki Inc., LuK Savaria Ltd., Rába Automotive Holding Plc.), representatives of financial and advisory service provider companies, and the West Transdanubian Regional Development Council. On the signing ceremony the Hungarian government was present on the highest level, represented by the Prime Minister and the Minister for Economic Affairs.

The PANAC project was supported by the Ministry of Economics. For the initial stage of its operation PANAC has received approx. 175.000 Euro, contributing to the general operating and program costs during the first two-and-a-half years of operation. During the same time-period the West Transdanubian Regional Development Council has contributed to the costs with approximately 120.000 Euro.

Following the founding the cluster has officially started its operation in June 2001, when it accepted the first round of membership applications. From the first moment, the companies showed great interest towards this new form of collaboration. Companies mainly view PANAC as a lobby of the global sub-contracting industry. Here they can learn about the requirements, be visible to the big buyers represented in the cluster, get acquainted with the right person they should talk to in order to build out new business contacts. On the other hand the buyers were also interested because they could receive controlled information on a lot larger pool of potential suppliers what they knew earlier.

Although the companies being interested in the Hungarian automotive industry had formed several associations, and other type of organizations, these could not achieve the required level of communication among the different types of companies. In this field PANAC is determined to fill this gap, and play a coordinative role among the parties.

PANAC views this as a critical task in its efforts to invigorate the automotive industry in Hungary. This industry is already one of the most important sectors of the Hungarian economy. It represents over 13% of the total industrial production. Mainly due to the earlier mentioned dual characteristics of the economy much of the potentials of this sector is still unutilised. The export orientation of this sector is around 90%. The fact that this extremely high ratio is not only true for the final products, or more complex modules produced by the big multinational companies, but also stands for the automotive components sub-sector as well flashes light to probably main problem of this sector: domestic subcontracting and/or co-operation links are almost completely missing among the players

Operating Form and Operation of PANAC

The co-ordination office of PANAC operates as a division of the West Transdanubian Regional Development Agency Non-profit Company. It currently employs 2 colleagues, the cluster manager and an assistant. The PANAC offices are located in the INNONET Innovation and Technology Centre at the Győr Industrial Park.

PANAC's operation and its activities are overlooked by an executive board, that contains the representatives of the founding organization and the Hungarian Ministry of Economics, with voting rights, and with consultation rights the representatives of the companies, that have been joined to the cluster-core after the founding.

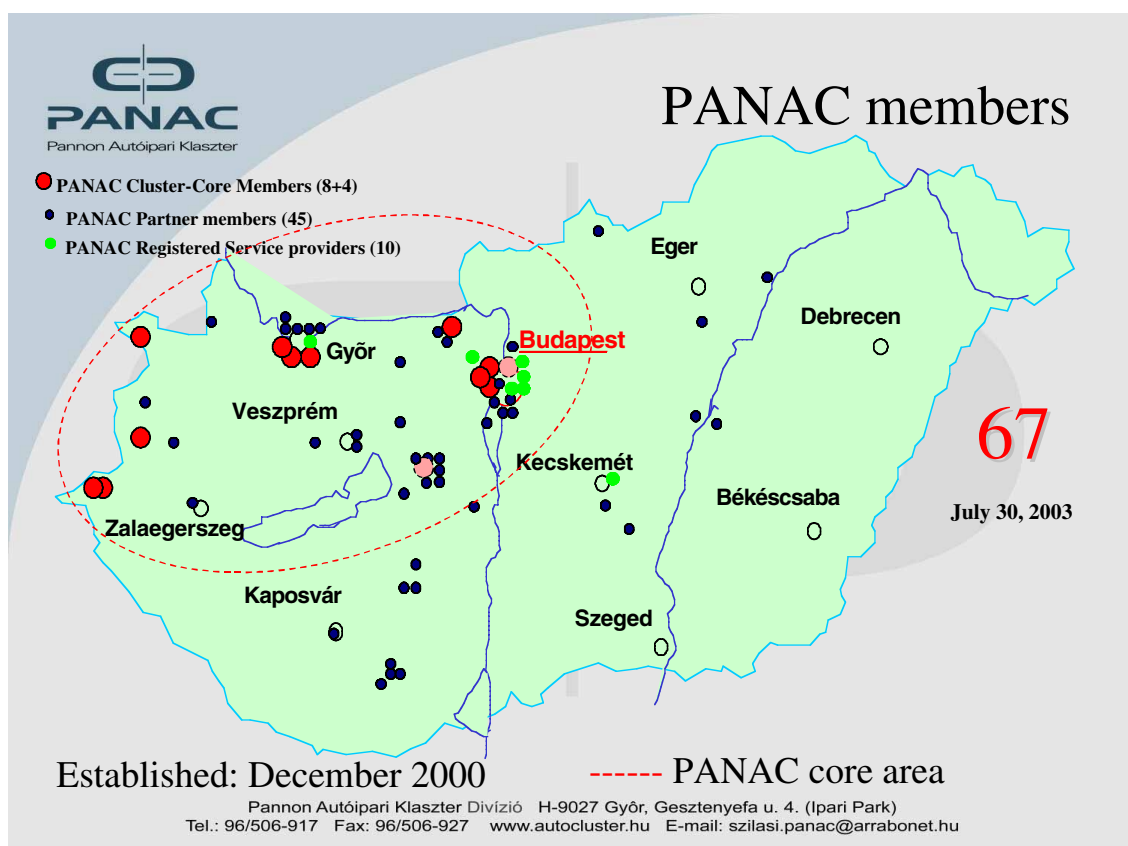
Among the partners of PANAC there are four distinguished groups. These are the founding companies and organizations; the companies joined to the cluster-core; the partner members, and the registered service providers. All of these companies are included into the cluster data-base, that contains in-depth information on the companies.

Besides of the Founders, every company signs a bilateral contract with the PANAC Division. At the time of the registration companies are obliged to pay a one-time registration fee. This amounts to approx. 120 Euro for SME's, 240 Euro for large companies, and 380 Euro for the service providers. Members starting from the second year of their membership pay a yearly flat service fee that amounts to 120 Euro.

The Membership of PANAC

Although PANAC has been established as mainly a regional initiative, it has outgrown the borders of the West Transdanubia. Currently it operates with national focus, aiming to be a co-ordinating power for the Hungarian automotive industry.

PANAC currently has 67 members. The following diagram shows the geographical distribution of the partners.



As the result of the significant concentration of the automotive industry in North-West Hungary (West Transdanubia is located in North-West Hungary, as the most western region of Hungary) a significant majority (76%) of the PANAC members are representing this region, referred as the core-area of PANAC.

As a very important addition to the cluster-core companies, the Széchenyi István University of Győr, has joined the cluster in 2001.

The partner-mix of PANAC is very heterogenous. Ranging from the micro enterprises to the large companies with couple of thousand employees every size category is well represented in the partnership. The most typical automotive technologies, and activities are also present in the network. The membership is also well balanced from the point of view of companies representing

different levels of the automotive supply chain. By having all these different type of companies on a common platform, and through the cluster activities fostering the intense communication among the partners, PANAC is fulfilling one of its main tasks, bridging the various companies with wide-range of experience, and thus promoting knowledge and know-how transfer.

Goals and tasks of PANAC

The mission statement of PANAC emphasises that the main focus of its operation is to embed the companies operating with global capital in Hungary into the nation's (or even more the Central-East European region's) economic structure, through increasing the level of their interaction with the local economy. This can be achieved through the improved ability of the Hungarian owned companies to supply them with even more complex products, as well as through the improvement of their economic environment, providing them with state-of-the-art services.

In order to meet these goals PANAC is involved in the following activities:

- ♣ Assessing, summarizing and continuously monitoring the automotive requirements for suppliers;
- ♣ Developing an evaluation tool that can be used to assess the abilities of the companies to meet the required level;
- ♣ Continuously monitoring the global trends and assessing its effect on the local industry;
- ♣ Communicating the requirements and the trends among the network-members;
 - Organizing conferences, professional forums;
 - Developing an information and communication portal on the internet (www.panac.hu), publish a monthly e-newsletter, and a quarterly professional publication;
- ♣ Developing SME's to help them achieve this level;
 - Providing specialized trainings and services;
 - Introducing state-of-the-art management and production techniques;
- ♣ Working closely together with educational institutions, universities, and R&D organizations, and fostering their interaction with the industrial partners;
- ♣ Mediating reliable business information among partners on their needs and abilities (partner-matching);
 - Being involved in one-on-one meetings, organizing business forums, or representing the companies on international fairs;
- ♣ Assisting companies to enter into cooperation projects, and joint business activities;
 - Promoting and assisting joint purchasing, sales or marketing techniques to be able to utilize synergies;
- ♣ Assisting companies to join European wide cooperation projects;
 - Building out partnerships with international Cluster organizations;
 - Participating in European network projects;
- ♣ Based on the information gathered through the above activities communicating with the state and regional governments, indicating the needs and potentials of the industry;

Achievements

Beyond the 67 official PANAC members, a larger group of approximately 100 companies have also been set up. These companies are also receiving information on the PANAC activities on a regular basis. By now PANAC is known as a reputed information centre of the Hungarian automotive industry.

Over the last two years, approx. 800 employees of our partner companies have participated in the 78 training days that were organized by the cluster. PANAC is also coordinating an Automotive Benchmarking Club, to foster inter-company learning. The club has company members of every size, from multinationals to very small companies.

Through the organization of five automotive conferences and technology forums (150 companies, 290 participants), and three international business forums (47 Hungarian and 35 German and

Austrian companies) we helped establish direct business relationships, providing the participants during these events with opportunities for personal meetings. PANAC has also represented its members at four international subcontracting fairs (Leipzig (D) 2002-2003, Linz (A) 2002, Paris (F) 2002.)

The Pannon Wood & Furniture Cluster (PANFA)

The economical structure of the Western- Transdanubian region and activity based distribution of enterprises shows that the dominant industrial branch in the region is wood industry: as much as 700 wood and furniture industrial manufactures operate in the region. After a short recession period towards the mid 90's, the wood industry started to bloom again. The trends of conversion of timber and furniture industry developed equally. As a matter of fact, wood is the main and most valuable natural resource of the region. The region is famous for its hilly scenery with all the forest. Thus it is a must to promote wood and furniture industry.

Based on the regional characteristics described above, the Zala County Foundation for Enterprise Promotion (ZMVA) initiated and 15 founding members finally determined to create cooperation agreement with the support of the Ministry of Economy. This has established the framework of a cooperative network in the wood and furniture industry. By this ceremonial act, the Pannon Wood and Furniture Cluster came to existence in June 2001.

According to operation rules of the cluster, the professional strategic tasks of the Pannon Wood and Furniture Cluster have to be processed by the cluster committee of 15 members. It was established 3 larger sub-committees supported the work of the cluster committee, these are the marketing, the innovation and technology committees. Suppliers and small enterprises have their own sub- committees of six persons each. The cluster's management organization is a non-profit organization, called ZMVA where a management of two together with all other workers of the organization carries out the actual professional tasks related to the realization of the cluster's goals. New members have to be recognized by the cluster committee. Membership is free of charge.

Development Trend of Domestic Wood and Furniture Industry

One of the largest and most important natural resources of Pannon region is wood, which is very characteristic for the landscape. Wood industry has become one of the most significant industrial branches in the region after several years of stagnancy. There are two major factors found advantageous for the firms in the region: raw material and vicinity of state borders. These two facts provide solid development.

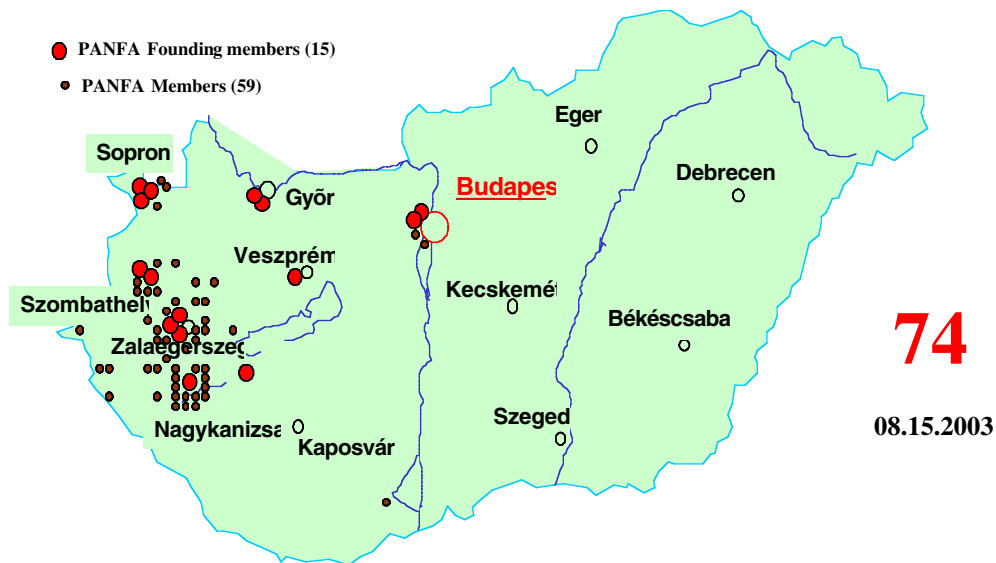
The yearly 4-5 % growth rate of Hungarian economy, the increase in house constructions and in domestic consumption facilitate the development of furniture industry. Foreign trade has shown a dynamic increase, owing to foreign investments furniture enterprises have integrated to the international economy very fast, innovation, quality and design have been revaluated.

Operation of the Cluster

The cluster could come to existence because the working organization's implementation study had a positive outcome. In other words it has turned out an effective form of organization. By the help of a representative research experts were able to determine the service needs of wood and furniture industrial enterprises in the Western Transdanubian Region. The Most determinant task is to insure the financial resources for the cluster's operation. ZMVA as a legal entity is aiming to create the financial conditions in first line working out governmental regional, local and Phare competitions. The self-contribution to the financial support is given by the ZMVA but sometimes these resources are supplemented by the enterprises' contributions, or the incomes of certain services provided by ZMVA.

Tasks of the Cluster

Presently, the Pannon – Wood and furniture Cluster has 74 members. The following diagram shows the geographical distribution of the partners.



The three big counties of the Western – Transdanubian region: Győr – Moson – Sopron County, Vas and Zala County and Veszprém and Somogy County would like to expand this cooperative network to all of the 700 wood and furniture enterprises in the region in order to promote competitiveness, innovations and the workability of domestic wood property.

The Wood and Furniture cluster set the following objectives after having assessed the enterprises' demands and by establishing the organization's operational conditions:

- Set up the regionally integrated wood industrial economy development model
- Developing the cooperation network of small and medium sized businesses
- High level utilization of the region's natural resources.
- R&D, quality, product certification and marketing service development

The Cluster's Actual Activities

One of the cluster's most important tasks is to establish contacts between the business and the scientific world.

Two main expectations serve as basis for this activity: to increase level of productivity and to use high tech methodologies in the competition. Networking can give a strategic solution for overcoming the challenges of the competitions by insuring services in the beginning that the wood and furniture enterprises demand.

Programs, Businessman Meetings, Conferences

Businessman meetings help to build contacts between Austrian, Slovenes, Italian and Hungarian businessmen of the member enterprises. The experts and businessmen of the profession can discuss the latest issues and can share new information concerning the industry on occasion of a conference.

Professional Study- Tours

The cluster organizes Italian, Austrian and Slovene Workshops. Cluster members are provided to visit innovation and research centres as well as best practice projects. Through these opportunities for development, the cluster insures the possibility of getting prepared for the E.U. integration.

Professional Exhibitions and Fares

The cluster helps its member enterprises either to visit national or international fares or to exhibit. This will promote the members' marketing activity.

Common Information System Development

In the interest of modern and fast information exchange, the cluster started up its own web page (www.telepiac.hu) with the support of the local municipality and the Zala County Chamber of Industry and Commerce the members of the cluster are afforded the possibility to appear on the website. The cluster's own website is also available by now; it can be found as www.panfa.hu. Cluster members receive a monthly newsletter that summarizes the newest information.

Marketing Through Common Publications:

The informative publication of Pannon Wood and Furniture Cluster is published 3 times a year. Usually the new cluster members introduce themselves in this publication. The cluster's common furniture catalogue has also reached completion, describing the region's furniture supply.

Plans, Programs

In order to expand the range of services, the cluster is planning a huge joint investment. The cluster plans to build a Wood-industrial Innovation and Technology Centre in the city of Zalaegerszeg at first stage. This centre and the nearby industrial park shall be supplied with energy by a biomass power plant that will be heated with wood waste.

A common project plan is to create a common cluster product, a "pannon furniture" and to trade it commonly on the market. This plan is in accordance with the local traditions.

Achievements

During the process of networking cooperation establishment, which has taken up the two years time that has passed since the cluster was established and that is considered to be a short period of time, as much as 74 member enterprises have already allied within the frames of the cluster and work together effectively. Several conferences were organized as well as businessman meetings where the businessmen of the region had the opportunity to build out or develop their international connections. The cluster had provided its members with financial and professional aid to facilitate regular participation on national and international fairs and exhibitions. Additionally, the cluster organized professional sturdy tours to Italy and Austria.

In short, we can say that the Pannon wood and Furniture Cluster managed to raise the interest of a meaningful number of wood and furniture enterprises for conscious cooperation within just 2 years.