

# JOENSUU REGION

## Business and Technology



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# Education and research are at the forefront of internationalisation in the Joensuu Region

The economy of the Joensuu Region and the whole of North Karelia is rapidly becoming more international. Small and medium-sized enterprises follow in large companies' footsteps by looking for new opportunities beyond national borders. Versatile skills are required on the international markets; you have to know foreign languages, cultures, trade practices and, above all, be able to establish the right contacts and operating methods quickly. Training, education and research have long been leading in this respect, and have paved the way for enterprises and relayed information on new business opportunities.

The region's educational establishments, research institutes and development organisations have acted in a commendably broadminded and unbiased way. The University of Joensuu has an extensive partnership network that covers Japan, China, the USA, Russia and, naturally, the EU area. The relative proportion of international students at the University of Joensuu is among the highest of Finnish universities, thanks to student exchange programmes such as Erasmus. In accordance with the principle of reciprocity, Finnish students can carry out a part of their studies in

partner universities. The North Karelia University of Applied Sciences (formerly Polytechnic) has reached partnership agreements with universities in Russia, the EU area and North America. Furthermore, the ENO global virtual school for environmental awareness has received international awards in the field of basic education. Development organisations provide core services for companies that are planning to internationalise their operations.

The forest expertise of the Joensuu Region is a case in point in this respect. Joensuu has received recognition as Europe's wood capital, thanks to the 300 or so forestry experts working in the region. Long-standing international co-operation in forestry training, education and research promotes the growth of enterprises and the wealth of the region in an unprecedented manner; for instance, 50% of the forestry machines sold in Europe are manufactured in Joensuu. The relocation of the European Forest Institute to Joensuu was a breakthrough for the sector and the entire region. The Faculty of Forestry of the University of Joensuu, the Finnish Forest Research Institute, the degree programmes in Forestry, Forest Products Marketing and Wood Technology

## Young masters will meet in Joensuu

The Finnish Vocational Skills Competition for Young People, Skills 2007, will take place at Joensuu Arena from 31 January–2 February 2007. Two other major events will take place at the Joensuu Ice Stadium at the same time: a 2-day Education and Training Fair and the Taitaja 9 (Skills 9) competition in practical skills for ninth-graders.

The Skills 2007 event will consist of almost 40 categories. Regional qualifying rounds and semi-finals, organised in different parts of Finland, will qualify 8 competitors per category for the finals, i.e. approximately 300 contestants in total.

Approximately 30 teams, each consisting of three members, will participate in the Skills 9 event, and almost 60 exhibitors will participate in the Education and Training Fair.

"We expect 30,000 to 35,000 people to visit the Skills 2007 event. The accommodation providers in the

Joensuu Region already report full occupancy for the period," explains Competition Leader Anne Karppinen. In addition to competitors, the event will attract representatives of enterprises and educational establishments, students, teachers and other interest groups.

The role of the North Karelia Educational Federation of Municipalities as the event organiser is an important one: it is responsible for a wide variety of tasks ranging from the planning of competition tasks to sourcing of funding.

"It would not be possible to organise the competition categories or the whole event if it were not for our business partners and other funding bodies. The event is a venue where young masters of vocational skills compete against each other; these young people are at the beginning of their careers and may one day work for our partner companies or use their

North Karelia's "young masters" tested their skills early this year in Tampere to get a feel for the Skills 2007 competition, which will be held in Joensuu.



products."

"Skills 2007 provides an excellent opportunity for networking, marketing and establishing new contacts. Once again, it provides a showcase for the entire region," Anne Karppinen points out.

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of the North Karelia University of Applied Sciences, and the forestry machine operator training of the North Karelia Educational Federation of Municipalities all work in close co-operation with enterprises and act as engines in international education, training and development projects.

However, internationalisation in Joensuu starts as early as primary school, because the city offers basic education in the English and Russian languages. Children are encouraged to take the first steps towards understanding foreign cultures in the lower grades of comprehensive school. This work bears fruit; the region's young people actively participate in pupil and student exchange programmes and vocational training periods abroad.

China, India, Russia, the new EU countries and South America will be the engines of global economic growth in the future. The education, training and development organisations of the Joensuu Region have already created networks in these areas. It is now time for the businesses to follow suit.



## **A Service Centre of the Ministry of Interior started operations in Joensuu**

The Ministry of Interior established a Service Centre in Joensuu at the beginning of 2006. The Centre is responsible for payment transactions, matters related to wages and salaries, IT services, computation, the maintenance of occupational data on employees, the compilation of statistics and archiving.

This year, the Service Centre is estimated to process, for instance, up to 300,000 invoices. It is also responsible for calculating the salaries

of almost 20,000 State employees.

The relocation of the Service Centre brought 65 employees to Joensuu, but the number of employees is expected to increase to approximately 150 next year. Once the Service Centres in Helsinki, Hämeenlinna and Rovaniemi have been shut down by the end of this decade, there will be two permanent Service Centres in Finland, one in Joensuu and another in Kajaani, to which the posts will be transferred.

## **A new English-language class to start in Joensuu**

Kanervalva Primary School in Joensuu will introduce English language tuition from autumn 2006 onwards.

One first-grade class will be established this year, and tuition will be organised in combined classes in the future. The objective is to provide schoolchildren with more solid English language skills than would be possible during normal language lessons. Pupils will get to know the basics of English as early as the first grade both as a

school subject and in everyday situations. In other respects, they will complete the normal comprehensive-school syllabus. The first pupils for the English class were selected in March. There has been demand for basic education in the English language in Joensuu, and the organisation of such instruction is also in line with the city's education strategy.

## **An active five-year-old**

Joensuu Regional Development Company, JOSEK Ltd, celebrated its 5th anniversary in January. JOSEK serves enterprises and promotes the region's attractiveness and competitiveness by marketing its strengths and expertise. It also coordinates the co-operation between organisations that provide services to the region's businesses, launches and carries out development projects, improves the operational conditions and mutual co-operation of enterprises operating in the region and helps start-ups and existing companies to establish themselves in the region. The company operates in an area that covers not only Joensuu but also a large part of North Karelia.

## **Internationalisation Awards go to Mantsinen and Nunnanlahden Uuni**

Two North Karelian companies received the 2005 Internationalisation Awards of the President of the Republic. This prestigious award was given to the Mantsinen Group, which specialises in logistics and materials handling, and the fireplace manufacturer Nunnanlahden Uuni Oy.

Last year, Mantsinen's net sales were approximately 38.6 million euros. Nunnanlahden Uuni achieved net sales of 23.6 million euros. More than 50% of the net sales of both companies comes from exports.



JOENSUU REGION

## Info

### The Science Park as a community

- Joensuu Science Park Ltd. Premises: Länsikatu 15, Sirkkalantie 12B/Puugia and Karjalankatu 3/Imtec.
- Approximately 70 companies, employing almost 400 people, operate from the Science Park's premises.
- Houses individual departments of the University of Joensuu: the Department of Computer Science, the Educational Technology Centre and the Plant Biotechnology Laboratory. Approximately 550 university students and 130 employees.
- Houses individual departments of the North Karelia University of Applied Sciences: Communications, Adult Education and the CADIMEF content production factory. Approximately 200 students and 40 employees.

# A bridge builder guarantees optimum expertise

"Businesses can only grow if they are sufficiently competitive. Competitiveness requires that you are good at what you do. You have to specialise and find your niche," crystallises **Jari Lauronen**, Managing Director of the Joensuu Science Park. He points out that the Science Park plays an important role in a dynamic business environment.

"Each growth company has its unique growth path, and each requires a specific, customised growth programme. If these companies are to make good use of the innovation system, someone must specialise in them. This is where we step in," Lauronen explains.

"We build bridges. We help growth companies to develop and, to be able to do so, we must be able to relay research, development and expertise to them."

Lauronen promises that the Science Park's teams look for the best expertise for companies' development and growth projects at the University, the University of Applied Sciences, the Educational Federation of Municipalities and consulting firms, among others. According to Lauronen, the expertise must be based on having national networks at the very least.

Jari Lauronen, Managing Director of the Joensuu Science Park since last October, started his new job by building a sharp strategy for Joensuu Science Park Ltd in co-operation with the company's



Board of Directors and Management Group. Not only does Lauronen confirm that the Science Park's determination and expertise will be used for the benefit of growth companies; he also guarantees that the companies and associations operating in the Science Park, representing different sectors, will gain added value through a sense of communality. Information, expertise and skilled people could mean much more to a business than just haphazard encounters during a coffee break in the Science Park's canteen.

"How to increase the value of a community for its members – this is the question to which we try to find an answer," summarises the Managing Director.

# SoftColor gets the picture

SoftColor Oy Ltd, which was awarded the national INNOFINLAND 2005 Prize for its real-time colour correction method, challenges the software giant Adobe to a battle for the future of image processing.



SoftColor is taking huge steps to the global market from its base in the Joensuu Science Park's Business Incubator. Photo Sledgehammer, which is sold on the Internet as an application to amateur photographers, has now convinced the professional circles of its quality. The software has been delivered to photography studios throughout the world, for example South Korea and the USA.

"Our product yields the same end result at the press of a button as the market leader, PhotoShop software, which has to be controlled manually. If photography studios have adopted the software for production use, it has to be good," **Petri Piirainen** and **Juha Purmonen**, the men behind SoftColor Oy, point out.

The innovative software approaches colour management from a completely new perspective and is not restricted to stills.

"The application is compatible with all digital media. It is already used by Joensuu's local TV and, judging by the interest it has aroused, will be adopted widely by the moving-image sector. There are plenty of possible applications even in this sector, ranging from web cameras to cinemas," Petri Piirainen outlines the future.

At this point, however, the company focuses on making a breakthrough among photo developing companies, professional digital photographers and image processors. It currently works on new products for large-scale quick colour correction of photos and for

the automatic improvement of quality in photo production.

"It is our vision that our product will attain the same position in colour correction as Dolby did in sound reproduction. Few people know the technology of Dolby formats, yet everyone is able to associate this term with top-quality sound reproduction."

"This is naturally a long-term target and its attainment will require considerable resources. We are currently looking at ways to finance our operations. We want to take our time getting to know what capital investors think about us, to see how well their opinions match our philosophy," Juha Purmonen points out.

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## Imtec has worked for companies' success for 10 years

The Eastern Finland Plastic and Tooling Centre (ISMM) was established in 1996 on the initiative of the plastics and metal industry. The Centre's success was guaranteed when all the key players of the plastics and metals innovation system joined the co-operation arrangement. The Centre's operations got off to a good start

and gained further momentum when the Government decided to award the ISMM the status of a Centre of Expertise.

The name of the Eastern Finland Plastic and Tooling Centre became history in April 2003, when the centre was renamed as Imtec; this name was previously used in the centre's international operations.

In 2006, when Imtec celebrates its 10<sup>th</sup> anniversary, the Centre has become a nationally recognised player and a valued international expert in its sector.

Imtec's future is bright; companies continue to invest in new technology and Imtec continues to work for their success.



Joensuu provides excellent housing, health care, public transport and many other services required by students. In comparison with other university towns, Joensuu ranked in the top three together with Tampere and Lappeenranta.

# Joensuu is

## elite among university towns

The comparison data on universities and university towns is based on a survey compiled among students by **Aleksi Nokso-Koivisto** and published last year by the National Union of Students in Finland.

The University of Joensuu did also well in the survey: it ranked in the middle group among universities and other institutions of higher education.

### Housing is the biggest item of expenditure

The survey included a wide variety of questions ranging from study processes to the interconnection between research and tuition, and from the students' own opportunities to influence the decision-making processes affecting them to wellbeing and the student relations within the university town.

According to the survey, housing is usually the biggest item of

expenditure in the students' budget: it accounts for up to 42 per cent of a student's average annual budget.

Students are prepared to compromise on their living comfort, but their living conditions must equal those of other groups of citizens, states the survey. In other words, the student housing must be in good condition and preferably located close to the university, or have good transport connections.

Joensuu ranked well in this comparison. The availability of student housing is good and the rent level is reasonable.

Joensuu also stood out when the status of students as residents was compared. The survey states that the administrative bodies of the local authorities can do a lot to make the local authorities more approachable to residents, including students, and to improve the image of their services among all residents.

### Money matters

Organisers of the survey comparing universities and university towns hope that the results will be utilised when developing the towns.

Several of the survey's questions relating to university towns involved questions of money. The survey looked at things like: How much do students pay for public transport? How well are the pedestrian and bicycle routes that start from the campus maintained?

Joensuu still lags behind bigger towns in terms of public transport; student tickets were not yet available at the time the survey was carried out. However, although the town may lose points on public transport, it wins some in terms of distances and pedestrian and bicycle routes.



**Karri Heikkilä**, Chairman of the Executive Board  
Student Union of the University of Joensuu

“The location of the campus in Joensuu is excellent – in the centre of the town yet in peaceful surroundings and dedicated to students. All faculties and institutes are closely located in the same area, with facilities for physical activities right next door.”

“The town has good transport connections. Thanks to the recently introduced student fare on local public transport, students can live on budget outside the centre of the town. On the other hand, there is plenty of housing available in and around the centre of the town, so that there is no need to move further if you don’t want to.”

“I think that jobs are a real problem in Joensuu. There is not enough work that would correspond with what we study here, so that you may have to accept summer and evening jobs that do not quite match your studies. The number of jobs, however, increases all the time as Joensuu grows and becomes more vibrant. Unlike the university towns in southern Finland, you can manage on student grant in Joensuu, although the student’s budget may be very tight. Student housing is available and the rent level is not as high as in Helsinki.”

## How the students see it

**What do future experts say about Joensuu’s offerings to students? Asta Viertola and Karri Hietanen speak on behalf of their student unions.**

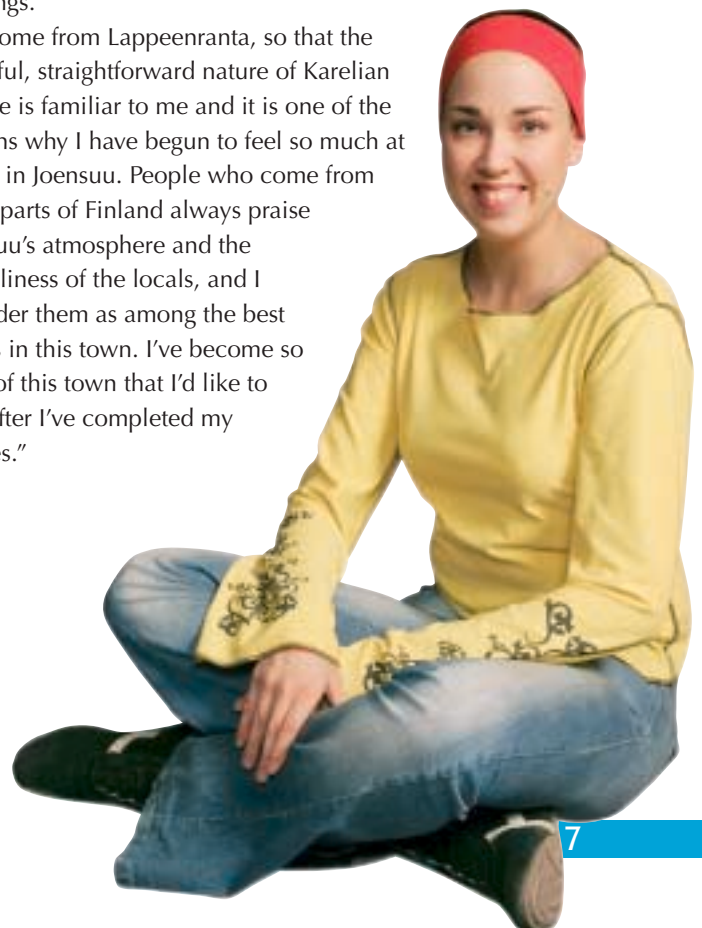
**Asta Viertola**, Chairperson

Student Union of the North Karelia University of Applied Sciences NoCaPo

“I think that Joensuu has excellent study opportunities in relation to the size and population of the town. There are plenty of options in almost all fields in both the University and the University of Applied Sciences.”

“Many students who come from the Helsinki Metropolitan Area complain about the poor supply of leisure activities, but it is clear that there is much more to do in towns that are ten times bigger. I believe that it depends largely on your own initiative and resourcefulness. As for myself, I can’t say that I’d suffer from boredom very often. The only thing I hope would improve is the town’s cultural, particularly music, offerings.”

“I come from Lappeenranta, so that the cheerful, straightforward nature of Karelian people is familiar to me and it is one of the reasons why I have begun to feel so much at home in Joensuu. People who come from other parts of Finland always praise Joensuu’s atmosphere and the friendliness of the locals, and I consider them as among the best things in this town. I’ve become so fond of this town that I’d like to stay after I’ve completed my studies.”



# AiVo

## pioneering power of adult education

“AiVo (‘brain’ in English), or the Power of Adult Education, is a North Karelian brand. Our power is the regional coverage of players,” enthuses **Harri Mikkonen**, Director of Adult Education at the North Karelia University of Applied Sciences as he tells about the achievements and future plans of the AiVo Working Group.

In addition to Mikkonen from the University of Applied Sciences, the AiVo Working Group consists of **Esko Paakkola**, Director of the Continuing Education Centre of the University of Joensuu; **Esa Karvinen**, Rector of the Adult Education Centre; **Erkki Matikainen**, Rector of the Non-Vocational Adult Education Centre of the Joensuu Region, and **Veijo Martikainen**, Rector of the Adult Upper Secondary School of the Joensuu Lyceum.

AiVo co-operation is carried out in close contact with the region’s businesses.

“The objective is to promote the development of the world of work, the region’s employment and vitality, and meet the needs of individuals for training and education,” state Harri Mikkonen and Esko Paakkola. The wording

may sound lofty, but something even better is being planned: information on adult education will be made available to everyone in North Karelia.

“Plans are being made to open a service point for adult education in the centre of Joensuu later this year. It will be an information booth, a one-stop shop which anyone can easily pop in,” Mikkonen explains. He compares the future AiVo information booth to a top travel agency that offers adventure holidays to the rich world of study and has more to offer to the enquirers than they could expect. A few similar information booths will be built throughout the region.

“The fact is that the supply and field of adult education are currently scattered. The man in the street does not necessarily even know what to ask or where,” Mikkonen and Paakkola continue.

### **Don’t look too far!**

Esko Paakkola, Rector of the University of Joensuu, points out that the AiVo information booth will even serve businesses. Both Paakkola and Mikkonen know from experience that North Karelian enterprises often shop for training

**North Karelia is a model region for adult education. Information on all the education and training opportunities will be available from an information booth that will be built in the centre of Joensuu.**

services in southern Finland although often they would not have to go that far.

“The need for personnel training is ongoing. Yet not even large companies know the opportunities available in their own region.”

The AiVo service point concept designed by Joensuu-based adult education providers was enthusiastically welcome at the Ministry of Education, so much so that the idea will be piloted on a national scale. An application for funding was sent to the Ministry in April.

According to Paakkola, it is particularly important to train the information booth personnel and ensure that their skills are kept up to date at all times, because they must be able to inform enquirers about the best options and provide reliable information.

“Co-operation under the AiVo brand between adult education providers has been amazingly smooth. The strategic foundation has now been built, and we feel confident about the project,” Paakkola concludes.

# Training in the management of technology knowledge to expand

Katriina and Serge Riissanen are currently studying in the Management of Technology Knowledge Degree Programme at the North Karelia University of Applied Sciences. Katriina Riissanen works as Production Manager at the Kitee-based Dynea Chemicals Oy, a world-leading manufacturer of industrial adhesive resins.

Serge Riissanen works for John Deere Forestry, a Joensuu-based forestry machine manufacturer, where his duties include procurement and the coordination of change management.

The couple started studying for the post-graduate polytechnic degree in 2005. Katriina Riissanen (27) is a Bachelor of Engineering and Master of Science in Chemical Technology, while Serge Riissanen (27) has obtained a diploma in mechanical engineering.

"We received a brochure on this

post-graduate degree by post. It was easy to make a joint decision on starting the studies. If I weren't studying this, I'd certainly study something else," Katriina Riissanen explains.

"Our employers have encouraged our studies," Serge Riissanen states. They will both start working on their Master's theses next March.

Studying together and mutual assistance with homework has been rewarding. Jyri Roihuvuo, Degree Programme Director at the North Karelia University of Applied Sciences, says that the degree programme in Knowledge Management, which commenced as a pilot programme in 2003, will be extended from technology to the health care sector next autumn. The Master's degree from a polytechnic or a university of applied sciences provides the same qualification as a Master's degree from a university.

The new degree programme has



Katriina and Serge Riissanen consider studying important. Next spring they will be working on their Master's theses.

generated great interest, although dissenting voices have been heard in the public: some parties have been sceptical about the English name of the degree, Master of Engineering. "Even sceptics should remember that those studying for a Master's degree in management already participate in the world of work; they do not steal anyone's job with their degree. They just want to learn more and develop in their work," Jyri Roihuvuo summarises.

## A Regional University

The Regional University Project, which is supported nationally by the Ministry of Education, is also up and running in North Karelia. The Regional University is based on four strong pillars: development, availability, co-operation and innovation.

"We want to spread higher education to the regions on the basis of regional needs. We work in co-operation with regional players, such as local authorities, business development companies and other training and

educational organisations," explains Adult Education Director Harri Mikkonen.

The Regional University Project will continue until the end of next year. If everything goes as planned, higher education will commence at that point in the Outokumpu, Lieksa, Nurmes and Kitee sub-regions.

In addition to services provided to individual students, the Regional University may even offer services to the public and private sector.



Esa Etelätalo, Jarmo Mäkelä,  
Paavo Pelkonen and Jari Parviainen

# Solidly on the map of Europe

**Research, educational opportunities, international networks and information transfer combined with forest-based business and economy**

**– Joensuu offers all this.  
Welcome to the European forest city!**

**Jari Parviainen**, Director of the Finnish Forest Research Institute's (Metla's) Joensuu Research Centre, examines forest issues nationally and internationally from a real-life vantage point. Parviainen's office is located in the new Metla House, Finland's largest wooden office building.

Metla House was completed in 2004. This much celebrated and awarded splendour is a magnificent

demonstration of wood and the art of construction – Construction Project of the Year 2004, Wood Award 2005, Lighting Object of the Year 2005.

Metla settled in Joensuu in 1981. Internationally distinguished Parviainen has led the Joensuu unit ever since its founding, with the exception of a nine-year intermission in the 1990s when he served for six years as Metla

Research Director in Helsinki and three years as Forestry Attaché at the Finnish Embassy in Bonn, Germany. He has led the research society forward with vigour and ambition.

“Without beating around the bush, it should be noted that Metla's resources in Joensuu have doubled over the past six years. Of the total of 19 Metla professorships, six are located in Joensuu. There are

about 80 researchers and about 50 other employees. We have attracted talented young leaders here to be researchers,” Jari Parviainen observes. He points out that there is demand for Joensuu’s research.

“The portion of the annual operating resources that comes from external financing is high, approximately 35 percent. Our ability is trusted.”

### Outstanding location

Through research, Metla’s Joensuu Unit promotes the region’s economic, social and ecological development related to wood and forest expertise. A multidisciplinary organisation of specialists, the unit is active nationally and internationally. Its location in a traditional forestry region, its proximity to Russia and the

Republic of Karelia, its own forest areas for research and an extensive co-operative network with practicing forest companies are Metla’s tremendous strengths.

“We conduct forest research for the good of Finland’s trade and industry and of Finnish nature from a European perspective,” Director Jari Parviainen explains.

The Metla director also notes Joensuu’s youth as a forestry player. The School of Forestry and Wood Technology opened in 1978. Metla came to the city in 1981, and a forestry faculty was introduced at the university one year later. The European Forest Institute EFI began operating in 1993.

“Everything here is comparatively young. I would say that Joensuu is in this sense in the best stage of its life cycle,” Jari Parviainen declares.

At the same time he underlines that in order to hold on to its forest town sceptre with credibility, Joensuu must continue to produce new results. Parviainen would like very much to see graduates of the University of Joensuu’s forestry faculty or Metla research scholars serve in top national positions in the future.

“But there have to be results to show. You do not reach the top without solid grounds.”

Europeanness and internationality become very important. Jari Parviainen stresses over and over again the critical importance of internationality and functioning networks: perspectives have to be broad.

## “We have to get more out of the wood than we do now.”

“We need to find more sensible ways of using quality Finnish pine and spruce. We have to work together to come up with more ways to use wood in products than just for sawing – otherwise we’ll be left empty-handed,” Metla Director Jari Parviainen challenges.

“We can’t live from nature tourism alone, even if we do succeed in selling the countryside and forests to tourists. Nor is increasing the protected areas the solution – where are we going to put the tourists when they can’t even walk around in the protected areas?” Parviainen needles.

The provocative statements have a purpose; Parviainen is deeply concerned about what will happen to productive business based on the Finnish countryside, forests, forest owners and wood.

“We could manufacture elements for prefabricated wood houses. Surely there is a need for wood houses in places like Turkey, Spain, the Balkans. We would get one step beyond sawing in the wood processing.”

Parviainen emphasises that Joensuu, North Karelia and all of Finland will succeed on an international level only by becoming stronger.

“We have to get more out of the wood than we do now. It’s a pity to spend 80 years

raising pine and then send it straight to the pulp boiler.”

Manufacturing wood houses and prefabricated house elements is not a new idea – but according to Parviainen, it is more and more clearly a key issue.

“The big global firms are not interested in the subject, they are only interested in sawing, pulp, paper and packaging. Now we need someone who dares and has vision, someone with international perspective. An entrepreneur with the guts to take risks.”

But Parviainen does not recommend plunging headfirst into making wood houses and shipping them out into the world.

“First we need to do a market analysis. Where are the potential and the capacity, and what sort of products do we begin with? Metla has talented research power. People who are able to make realistic assessments,” Parviainen proposes.



# More international than Helsinki

“On any scale we are more international than Helsinki,” Professor **Paavo Pelkonen** begins, when asked to compare the forestry faculties of the University of Joensuu and the University of Helsinki. Pelkonen is Vice Dean of the University of Joensuu’s Forestry Faculty.

He supports his claim with the number of international students, as a start.

“Every year about 50 exchange students come to us in addition to the Finnish students we take in. Most of these students are from EU countries.”

Erasmus Mundus, for its part, is the newest of the European Union’s educational programmes. Its purpose is to enhance quality in European higher education, increase the attractiveness of the European educational region worldwide, and promote intercultural dialogue, particularly with third countries. Joensuu was selected from among 128 applicant universities as one of a fortunate group of fourteen to implement the Mundus programme. The faculty will also coordinate the M. Sc. European Forestry Master’s programme selected for the EU’s Erasmus Mundus programme.

“Last year 27 students started in Erasmus Mundus, next year the same number will enter the programme. The students come from all over the world, mostly from countries outside the EU, including China, India, Thailand, Indonesia, Nepal, Nigeria, Columbia, and Venezuela.”

The Vice Dean has reason to be proud of Joensuu’s Mundus status. He thinks that the University of Joensuu, which actively embraced

internationality in the early 1990s, rose to join the select few as a result of its long, purposeful efforts to develop international co-operation.

“When the EU decided to introduce Erasmus Mundus, we were one of the few European universities with a programme in place and ready. Quite an accomplishment,” Pelkonen acknowledges.

Joensuu’s list of international

***“The students come from all over the world, mostly from countries outside the EU, including China, India, Thailand, Indonesia, Nepal, Nigeria, Columbia, Venezuela.”***

merits continues with foreign doctoral students and the Silva Network. The Silva Network is a network of 46 European universities. It offers participants the opportunity for multicultural co-operation, student study abroad, and development of joint teaching modules.

## Research emphases

“Forestry education is the profile-maker of the University of Joensuu. Another important feature is the faculty’s emphasis on research,” Paavo Pelkonen explains. The Forestry Faculty has some thirty researchers who are paid with actual budgeted resources. Figuring

in the outside project funding as well, approximately 120 people are working in the major research cluster.

Paavo Pelkonen has been developing Joensuu’s forestry programme since the faculty’s inception.

Born in Helsinki, after he completed his studies his path took him to Suonenjoki to become Director of the Metla Research Station. Suonenjoki was followed by a year in Canada, from where Pelkonen came to Joensuu to fill an interim university professorship. Later, having served as Dean of the University, Pelkonen was selected as Rector in 1990.

“Eight years as rector was enough,” explains Pelkonen, who switched back to become Dean and now Vice Dean.

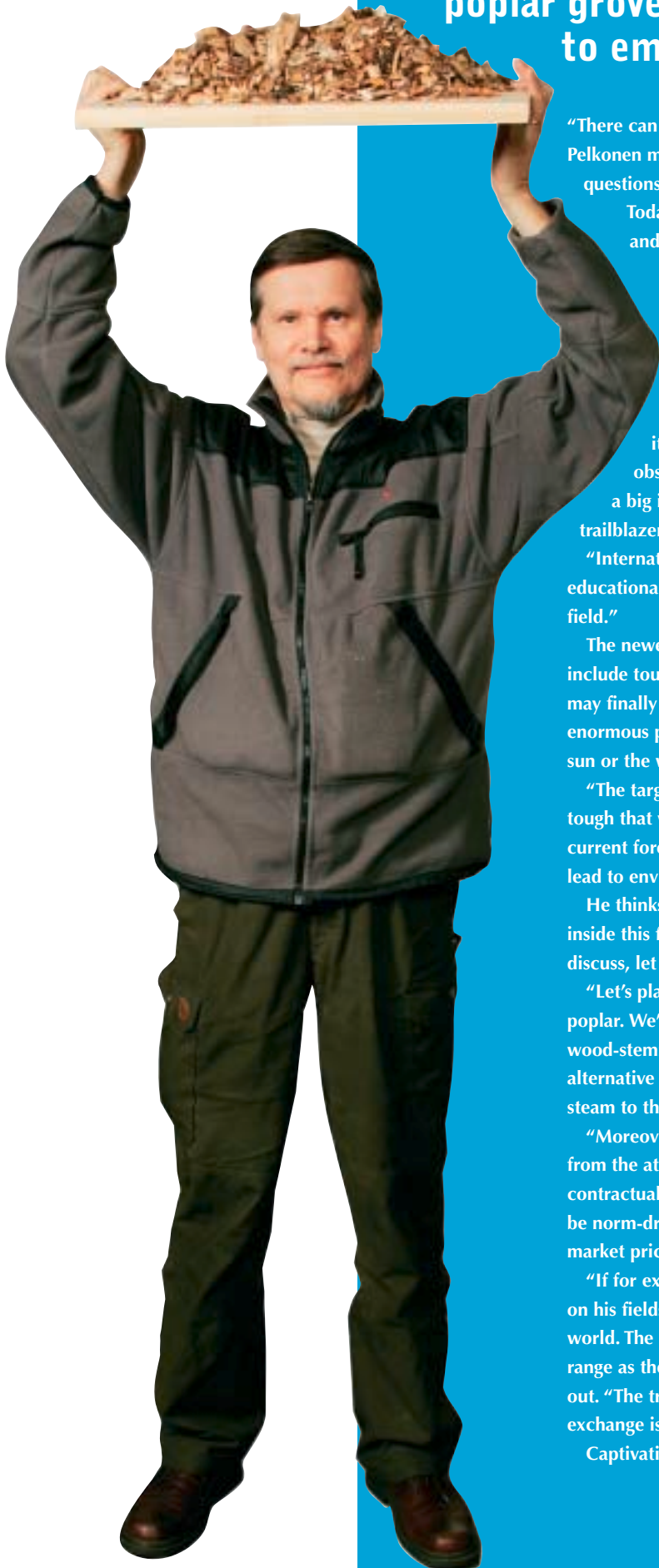
“If I had any more university governance duties than I do as Vice Dean, I wouldn’t have time to take care of international responsibilities.”

Developing international networks and co-operation is Pelkonen’s passion.

So what real contact does the forestry faculty have with trade and industry?

“The forestry faculty is like a miniature university in itself – it includes subjects from technology to biology, economics to anthropology. The degree of concrete collaboration with the business world fluctuates. In forest technology and wood processing technology it is extremely close,” Pelkonen assesses.

## “From Polvijärvi’s poplar groves to emissions trading”



“There can be problems if the fibre runs out,” Paavo Pelkonen muses. Pelkonen is a nationwide pioneer in questions of wood energy use.

Today bioenergy issues are hot topics in Europe and throughout the world.

“In 1983 when we opened the field of study here after the energy crisis had passed, the message to me from many people was to drop it as useless. But my reading of world indicators and confidence in myself told me this issue would grow in importance. And now it has,” Pelkonen affirms. Matter-of-factly he observes that the university’s long-term work had a big impact on the fact that North Karelia is a trailblazer in matters related to the use of wood energy. “Internationally speaking, we really have the only educational unit in Europe for training people in this field.”

The newest strategy papers from the European Union include tough wood utilisation targets. Pelkonen thinks it may finally have dawned on people that biomass holds enormous potential compared to power sources like the sun or the wind.

“The targets set in the Commission’s strategy are so tough that we will never get enough wood from the current forests. And cutting them down recklessly would lead to environmental conflict,” Pelkonen calculates.

He thinks a great challenge and opportunity are hiding inside this fact – something one has not really been able to discuss, let alone explore, till now.

“Let’s plant fields of quick-growing trees, willow and poplar. We’ve already been sold on reed canary grass, but wood-stemmed plants would be a more profitable alternative for growers,” Pelkonen challenges, and, adding steam to the sauna, he continues,

“Moreover, quick-growing trees absorb carbon dioxide from the atmosphere. And that is a commodity, currently a contractual business. But in the future it does not need to be norm-driven activity but can instead be based on market price,” Pelkonen envisions.

“If for example grower X from Polvijärvi grows poplars on his fields, he can sell his carbon sink to anyone in the world. The carbon sequestration price value is in the same range as the price of wood fibre,” Paavo Pelkonen points out. “The trading price on the London carbon dioxide exchange is around 26 euros per tonne.”

Captivating prospects!

# Theory, practice and co-operation in suitable proportions

Approximately 300 young people and adults study forestry, forest products marketing and wood technology at the North Karelia University of Applied Sciences each year. Some 10 to 15 students participate in specialist training in environmental communication.

In addition, a unique degree conversion course commenced in Finland last January to convert the former Vocational Qualification in Business and Administration students to Forestry Engineers. Degree programmes in bioenergy and the environmental sector will start in 2007.

"The students of wood technology have the best employment prospects," notes **Esa Etelätalo**, Director of the Degree Programme in Forestry.

"Timber construction is becoming increasingly common and requires experts," confirms **Jarmo Mäkelä**, Director of the Degree Programme

in Forest Products Marketing.

Both the directors consider that expertise in timber construction should be shared and co-operation between the degree programmes should be activated.

"Our university provides education in wood technology, forest products marketing and civil engineering. The Degree Programme in Design complements the picture nicely."

Both Etelätalo and Mäkelä consider that the Wood Technology Centre Puugia, which is part of the Joensuu Science Park, provides a good forum for co-operation. Puugia's premises are located a few kilometres from the Utra campus of the University of Applied Sciences.

"We hope to be close to Puugia. Modern timber construction that focuses on productising and new ways of co-operation are worth striving for," Jarmo Mäkelä contemplates.

Both Etelätalo and Mäkelä consider that the forestry education provided by the University of Applied Sciences is an important link in the network of forestry education offered by the University of Joensuu, the research carried out by the Finnish Forest Research Institute Metla, the European Forest Institute EFI and businesses operating in the sector.

"We are prepared to modify our training to meet the needs of companies and provide the students with theory and practice in appropriate proportions," Esa Etelätalo points out.

Both directors of degree programmes hope that co-operation with businesses will increase.

"We are continually looking for different kinds of connections with the business world, such as projects, practical training and company visits."





"In Joensuu I've learned to love winter and winter sports. In England you don't see much snow in the winter, and when you do see it, the whole country panics," Tim Green praises his new hometown. Beside Tim is his wife Niina, with sons Aku and Callum.

## Karelian in two languages

**The Greens represent the rapid internationalisation of the Joensuu Region on an everyday level. Originally Tim planned to come from Oxford to Finland and the EFI for one year. However, meeting his future wife in the middle of his stay caused this soccer-crazed Brit to move permanently to the land of dedicated hockey folk.**

English **Tim Green** had his first encounter with Joensuu at the European Forest Institute's conference in 1997. The pleasant-seeming city came up once again a few years later when he applied for a job as editor in the EFI publications department.

"My thought was to look for new challenges in Joensuu by filling in for someone on maternity leave for a year. Meeting **Niina** and then 2 1/2 year old **Aku** in the middle of the stay changed those plans," Tim Green remembers.

"Romance flamed and at the end of my contract I went back to England for just a three-month visit. Since my return I have done a number of different jobs at EFI, taught English at the Open

University and done proofreading jobs, under my own company name, as well."

In addition to now school-age **Aku**, the family now also includes a little brother **Callum**, who attends an English-language day care.

"Both boys are bilingual. I speak Finnish with them and Tim speaks English," Nina explains. She has just established a graphic design office with a friend of hers.

### **Plenty to do, alone and together**

The Greens like to spend their free time doing things with the family. As a Brit, Tim is naturally a great football fan. The West Ham games must be seen whenever possible, and he gets to demonstrate his own skills playing for the local Jokela

Restaurant team. It was in that restaurant that the couple first met.

"The move to Joensuu has turned Tim into a big fan of winter sports - the whole family loves to skate, ski and go sledding. Swimming is an interest we all share all year round," Niina says.

Each member of this busy family also has his or her own goings on: in addition to his football, Tim plays floorball with colleagues; Niina takes singing lessons, **Aku** practices gymnastics and 3-year-old **Callum** expresses himself at a music playschool.

"And when we line up a babysitter for the boys, Niina and I enjoy going out for a film followed by a few beers at the pub," Tim smiles.

European Forest Institute (EFI) Director Risto Päivinen is excited – a number of important new research projects have just gotten underway and the EFI’s official recognition as an international organisation, long under preparation, awaits only the final ratification. But though there is reason for satisfaction, there will be no standing still.



# “A reputation must be earned over and over again”

“European networking needs to be developed even more. Even a highly respected research organisation has to earn its reputation over and over again,” Päivinen asserts.

The headquarters of the European Forest Institute is located in the centre of Joensuu. The EFI’s main office, the former Bank of Finland building, is a vibrant international island in the middle of Finnish and North Karelian culture. An island that has intensive daily interaction with the town’s everyday life.

“Our international researchers, the partners we work with and our employees all speak of the

matchless Joensuu spirit. Joensuu still has the fresh dynamic that springs from the unparalleled collaboration among players from all aspects of the forestry world,” Risto Päivinen acclaims.

“There’s been a conscious effort to keep EFI a less formal organisation. Around here people can easily discuss things directly, without a lot of formality. Here young international researchers and professors comfortably use first names and the informal you, unlike in their home countries,” smiles Institute Director Päivinen – himself a professor.

## Bioenergy and Irish folk songs

The European Forest Institute has an international Board, Secretariat, and Scientific Advisory Board. The EFI’s true international status has been systematically constructed and promoted. Its formal international status now exists, even if ratification of the Host Country Agreement by the Finnish government still awaits the blessing of Parliament.

“The Host Country Agreement defines the relationship between the State of Finland and an international organisation that is not part of the nation. This addresses issues such as the rights, obligations, social security and

**Forest research network in Europe**

- The EFI, European Forest Institute was established in 1993.
- The EFI conducts European-wide forest research, studying e.g. forest and environmental policy, forests' ecology and multiple uses, forest resources, wood resources, and supply and demand of other forest products. The EFI also forecasts the development and use of Europe's forest resources.
- The European Forest Institute includes nearly 140 member organisations from nearly 40 countries.
- Headquarters in Joensuu. EFI project centres are located in Spain, Germany, France, Austria, Denmark, Russia and Portugal.
- There are approximately 40 EFI employees in Joensuu. Most of the researchers are foreigners from about ten different countries.

The EFI's tight-knit team spirit continues outside of work, as well. Pictured, the power chain of the Joensuu Jägerbiilit rinkball club: Risto Päivinen, Andreas Schuck and Patrick Faubert.

other tax-related matters of the Institute and its employees," Risto Päivinen explains.

According to Päivinen, obtaining international status is also important because the role has an impact on the regional centres. A truly international operator has authority of its own.

The EFI Board of Directors last met in Joensuu in February. Dinner as guests of the town, visit to the energy co-operative in Eno, discussions of forest energy, snowshoe excursions, campfire pancakes and Irish folk songs echoing at the logger camp in Lieksa: international co-operation in the best spirit of the phrase. And as always with EFI, families are taken into consideration in everyday life and at special events.

"We try to make sure that the families of our foreign employees enjoy it here. Get-togethers and discussions strengthen relationships," Päivinen notes.

**New openings for research**

When Risto Päivinen begins talking about the EFI's new research areas, his enthusiasm grows and his hands punctuate his speech.

"There's an interesting study of the complete forest and wood product chain and its sustainability. The idea is that we monitor the wood flow right from planting and growth through to transport and wood utilisation. This is a unique EU project with a budget of over 20 million euros," Päivinen explains. The results of the research will eventually be useful in many different countries.

"The results will serve political decision makers and the forest industry equally."

The Institute's director also brings up the project that was started in the Western Balkan region. The project is part of the effort by European countries to provide support to the war-ravaged region. The Finnish State has chosen

forestry as its form of support, and the EFI serves as a good partner. The goal is to graduate 25 Balkan students with a Master's degree in forestry during the project period.

According to Päivinen, education is extremely important for the region, which till now has practiced something more like a "Marxist forest economy".

"The EFI, of course, conducts objective research, not politics. But in a certain way precisely with this Western Balkans project we are supporting Finnish and European foreign policy."



Reino is relaxed and upbeat, a man or a woman.

Reino respects tradition but is at the same time willing to try new ways. Successful, hard-working Reino has a global perspective on many issues—this is another reason he sees North Karelia as a tremendous opportunity. For the public at large, this way of thinking will acquire form at the end of May in the new Reino.TV channel initiated by students.

## Reino.TV channel becomes reality through the efforts of students

*“I’ve worked out the following idea for statistics. The current statistics distinguish the areas of population loss and gain from one another more or less by separating the hell-red from the heaven-blue with a black line, no matter how insignificant the gain or loss, such as for instance 45 persons in North Karelia.”*

The Regional Council of North Karelia organised a “Be a Reino” seminar in Joensuu at the beginning of March. At this invitation-only seminar, a squadron of innovative

thinkers pondered how to make the population inflow into the region more rapid.

“The goal of a region with net immigration is realistic. The preliminary figures for 2005 show a net population migration of only minus 45 persons,” points out Reijo Muje, Project Manager for the Regional Council of North Karelia.

*“I propose that such broad-brush propaganda statistics be replaced with a three-part graphic more descriptive of reality. On one side would be a narrow red area*

*labelled ‘area growing like a sickly cancer’. In the middle would be a broad section for today’s mobile way of living, maybe blue, labelled ‘idyll, no significant changes’, and on the right side a narrow green area labelled ‘future national park!’”*

**Camera’s running, let the conversation roll!**

North Karelia is an outstanding place to work, study and live. Many know this fact, but the information needs to reach even more ears. The Regional Council and the North Karelia University of Applied

Sciences together are making the news reverberate.

“Trailblazers that we are, we are making use of the newest tools, from the Internet to the mobile phone, from real-time live broadcasts to a resounding nationwide discussion,” proclaim Reijo Muje and **Pekka Huovinen**, Development Manager for the Regional Council of North Karelia.

They are referring to the Reino.TV channel. The channel will open for the public on May 18. As part of the publicity, a filming campaign will take place in the capital, Helsinki. Almost 100 University of Applied Sciences students will stride through the bustling streets of the capital, interviewing people who live there.

“Our theme is: shall we chat? In our conversations with the Helsinki people we’ll be sure to bring in the North Karelia way of life. The plan is to film the interviews to show on Reino.TV,” Muje explains.

In one form or another the Reino channel will also present the discussions from the seminar and the contributions from creative group work.

*“Part of fine living is being able to fly to that famous opera in two hours but not having to hear the practices from home.*

*Good living also means a so-called city cottage. A city cottage is a box in town from where the fortunate ones can pop in and out to take care of affairs.*

*If you don't have a city cottage, it's important to have a 'town buddy', a friend who'll let you stay overnight when you need.”*

The Reino channel particularly targets young people. The hope is

that this platform will prompt active and interactive discussion of the region's attractiveness and will inspire more programming ideas.

### **Work, too, not just starry nights!**

*“Nowadays the criteria for a new home focus in an urban, downright narrow fashion on square feet of living space, interior surface area, as if people will live there without ever setting foot outside or even looking out the window. This is why it is said that Finns live in small quarters, compared to the Danes or the Dutch. If you look at a map, it is hard to understand. And we are not even talking about the Finns' summer cottages. The real criterion for calibre of living is of course the setting.”*

May I present more quality of life, a Reino-sized realm in place of a cramped housing estate? If your answer is “yes, please!”, then, welcome to North Karelia! Here you will find a star-filled sky, magnificent wilderness, dazzling summer and real winter, cleanness and safety.

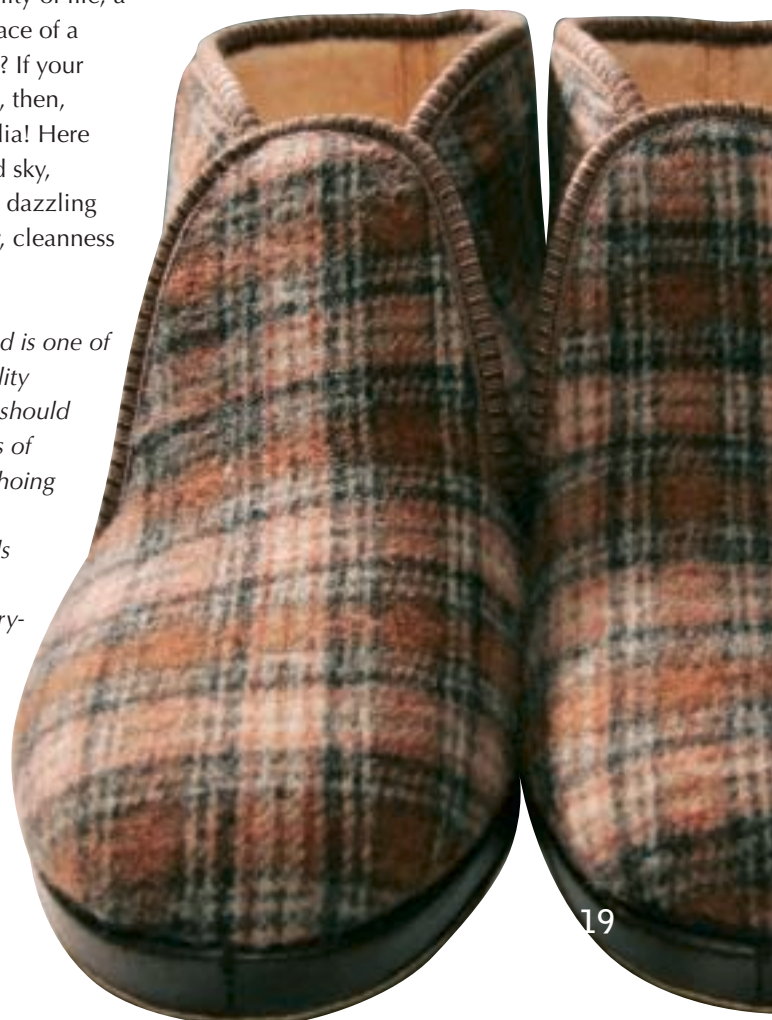
*“The landscape of sound is one of the most important quality criteria for fine living. It should include both the sounds of nature as well as the echoing silence of an autumn morning. Human sounds can also be soothing, if they are familiar, memory-rich voices that frame a community's life rhythm. In contrast, the unexpected shriek of brakes, detonating national museums or non-stop noise at 80*

*decibels are not recommended.”*

North Karelia has 16 municipalities with a total of nearly 169,000 residents. Of the region's 21,585 square kilometres, waterways make up 3,803 square kilometres.

North Karelia is a region of young people and students. About 30,000 students are studying at the region's secondary and vocational schools and the University of Joensuu.

The region is home to thriving businesses. The business vanguard includes such names as Abloy, Stora Enso, Veljekset Laakkonen, Mantsinen Group, John Deer Forestry, Tulikivi, Nunnanlahden Uuni, Tokmanni, Perlos, Kesla and Exel. A capable, committed work force, a cost-effective operating environment, smooth logistics and





## Reinos and Ainos are made in Lieksa

They are a luxury - Ainos and Reinos, warm felt slippers with flexible soles. These legendary house shoes were listed early this year in the women's magazine Gloria's column on the most fashionable must-have products.

Ainos and Reinos are made from start to finish in Lieksa in North Karelia. This year over 100,000 pairs of the slippers will leave Nokia's Kotikenkä Oy in Lieksa to be sold by Suomen Kumitehdas Oy.

Most of the prancing about in Ainos and Reinos takes place in Finland. However, Tuire Erkkilä, Product Development Manager and one of the two principal shareholders of Suomen Kumitehdas, discloses that inquiries have also come from abroad. Ainos and Reinos were just rated at the Finnish Design event in Norway. Since last year Ainos and Reinos have also been available for children. Delightful!

And the secret of their success? Why does the nation want to step out in Reinos this way, Product Development Manager Tuire Erkkilä?

"Their quality and versatility are what's decisive. The product is simply incredibly good," Erkkilä declares.

Precisely that quality and the assurance of product supply were the driving force behind Suomen Kumitehdas's decision to move the manufacture of Ainos and Reinos from eastern Europe to Lieksa. In the Nokia Jalkineet period, the slippers were manufactured in England, France and later in eastern Europe.

"The quality fluctuations were great. And it was hard to explain the variation to salespeople and customers. Moving the manufacturing to Lieksa has proved to be an extremely wise choice," the Product Development Manager affirms.

"Lieksa has outstandingly talented people for the sewing work. We quickly pulled together an excellent group of workers for a superior product," says Erkkilä. The manufacture of Reinos and Ainos in Lieksa employs eighteen people.

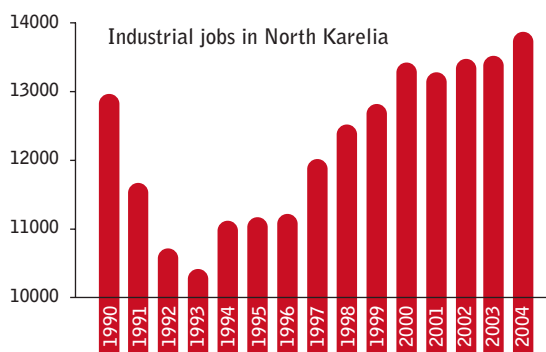
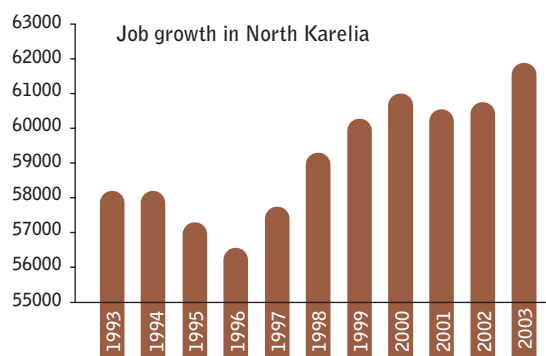
the municipalities' active zoning policies ensure the competitiveness of businesses.

North Karelia also offers excellent opportunities for entrepreneurship and building your own business. Product innovations for many new fields, such as optics, information technology and media content, have been conceived at the Joensuu Science Park.

"Richness of seasons is the highest criterion of quality living. It means fluffy white snow in winter, sparkling crusted snow that lasts in

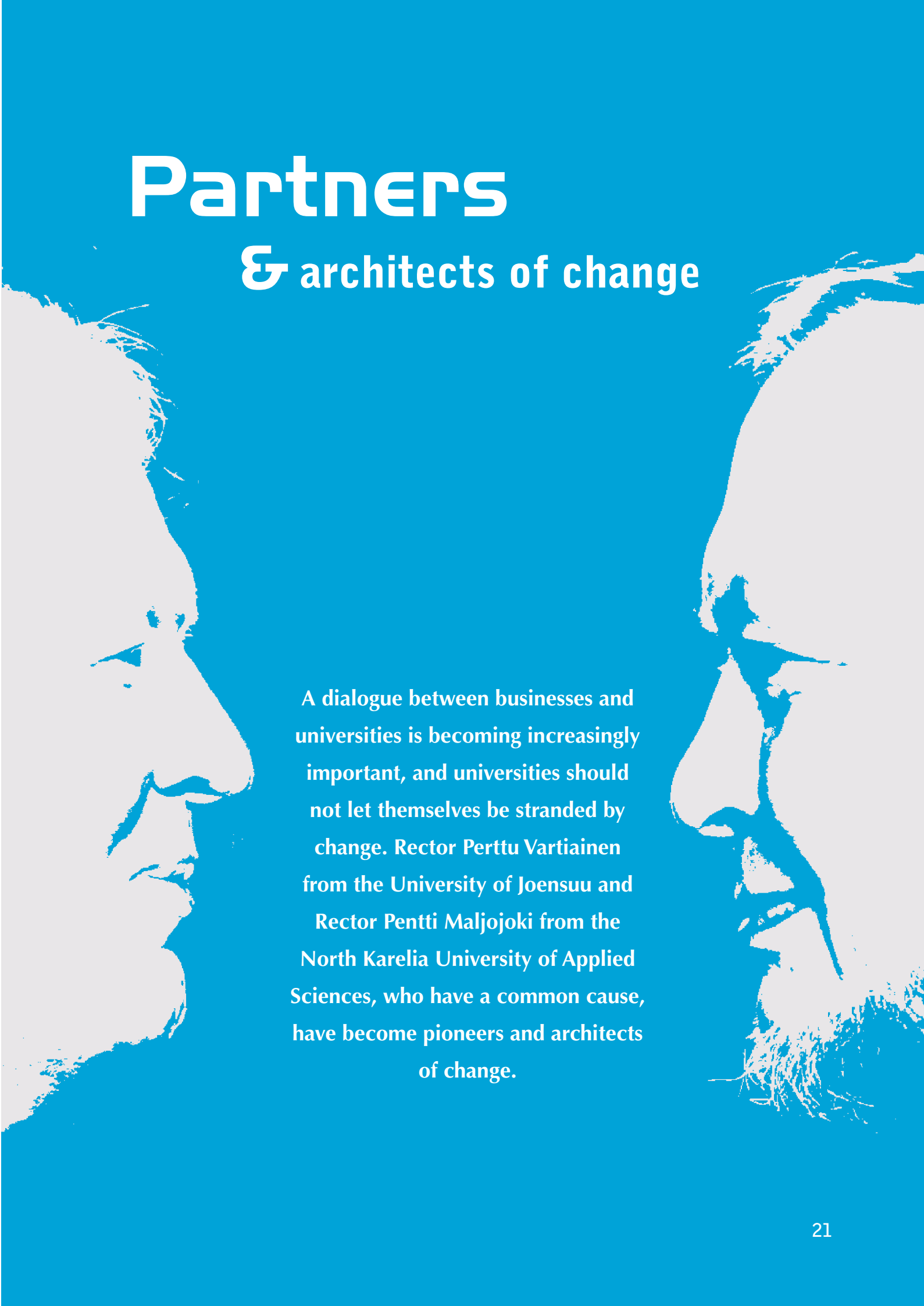
spring, meadows of flowers in summer, luminous foliage in autumn. Nor must we forget the flagpole planted on the earth cellar, that universal symbol of good living."

- The citations above are from author Matti Mäkelä, from a letter with which he welcomes participants to the "Be a Reino" seminar. Mäkelä and his family moved about six months ago to Hammaslahti, in Pyhäselkä municipality, about 30 kilometres south of Joensuu.



# Partners

## & architects of change



A dialogue between businesses and universities is becoming increasingly important, and universities should not let themselves be stranded by change. Rector Perttu Vartiainen from the University of Joensuu and Rector Pentti Maljojoki from the North Karelia University of Applied Sciences, who have a common cause, have become pioneers and architects of change.

## How are the University and the University of Applied Sciences doing nowadays?

**Perttu Vartiainen:** "We have revamped our administration and strategy and are working on a reform of regional development funding, which is important to us. Thanks to the Aurora II extension, to be completed in the autumn, even our campus will soon be in ship shape."

"Dark clouds have been gathering this spring, however, in the form of personnel cuts that were included in our productivity programme."

**Pentti Maljojoki:** "This spring and summer are important in terms of the programmes in which we participate, such as the Regional Development Programme, the Centre of Expertise and Regional Centre Programme, and the new innovation strategy, which is being prepared with the National Technology Agency, Tekes. Our own development strategy will be complemented on the basis of these programmes. We are also facing structural reforms, with the Degree Programmes being merged and stronger expertise structures formed."

## How to live with the change?

**PV:** "Talk of change has been most intense during my latest year as a Rector. It remains to be seen if genuine change will evolve from all that talk. At the national level, the mutual relationship between universities and universities of applied sciences, or polytechnics, has taken a noticeable turn from separation to co-operation. The change is not so noticeable at the local level."

"The Finnish Council of University Rectors published a manifest, and even our university has sharpened its strategies and approaches. It has been our aim to

be a forerunner in this respect, not a follower."

**PM:** "I have been a Rector for more than 14 years. My term has included many periods of change – the change is ongoing, but you must remember that change for change's sake has no value."

"Many of the issues on which we are working right now must be evaluated critically, in view of the future; for example, the extent to which our university can participate in different activities must be assessed carefully. We must consider how to distribute our expertise more efficiently to our operating environment and how to guarantee that our personnel have the opportunity to develop their skills and expertise. There must be a balance between these tasks. We are facing challenges in research and development."

## The University of Applied Sciences and the University signed a pioneering co-operation agreement – what is it all about?

**PM:** "The objective of the agreement is to look at the joint development opportunities that we may have in the future.

I believe that we will identify some areas for co-operation very soon. There are, however, matters that require further investigation and long-term consideration."

"We will best be able to succeed at the national and regional level when our universities complement

each other. The University is stronger in basic research, when it comes to finding new fields of expertise and breakthroughs, while the strengths of the University of Applied Sciences include well-established relations to the world of work and businesses."

**PV:** "I am convinced that we can intensify our co-operation

Maljojoki – Vartiainen



*"Direct dialogue between a top researcher or professor and an entrepreneur may not always yield the best results."*

considerably without compromising on the special characteristics and strengths of either institution. For the students, this could mean better quality joint services and flexible opportunities to continue their studies in another institution once they have completed the Bachelor's

degree. For the region, it could mean a more functional innovation system, as our scientific expertise is complemented with the strong business relations of the University of Applied Sciences.”

“The big question is whether we can identify economically sustainable solutions for strengthening our co-operation in terms of campus structures.”

***“I have stressed the need to increase the partnership level in co-operation in order to get the parties working to jointly agreed targets and principles.”***



Maljojoki – Vartiainen

#### **How about co-operation with businesses?**

**PV:** “All the key players know each other in Joensuu, and there is generally a good spirit of development. It is clear that co-

operation would be even more intense if we had a Faculty of Technology. However, many of our faculties and degree programmes that generally support business expertise – first and foremost our Business and Economics Studies – relate to business irrespective of its specification.”

“Not only is it important that the university opens outwards, even companies must be developed in such a way that they are prepared and able to receive our expertise. Science parks, business development companies and units of applied research and continuing education play an important role as intermediaries, because direct dialogue between a top researcher or professor and an entrepreneur may not always yield the best results. The public support of these intermediary organisations is, therefore, an essential link in beneficial interaction. There are no shortcuts.”

**PM:** “We engage in an ongoing dialogue. Most of our co-operation relates to education, although we also have plenty of research and development co-

operation. I have stressed the need to increase the partnership level in co-operation in order to get the parties working to jointly agreed targets and principles.”

“The truth is not always apparent in the world of work and business. This is partly because the timescales

in the world of work and in higher education are often different. Ours ranges from 5 to 10 years; we must forecast and identify the faintest signals and develop education accordingly, whereas businesses often operate in short-term cycles. Businesses that are hungry for success easily forget to promote the longevity of careers, look for new fields of expertise and generate innovations.”

“The Centre of Expertise Programme is an example of the kind of approach that I hope companies would adopt: more active, more analytical, more forward-looking. The programme currently relies too heavily on expertise systems and the universities.”

#### **Why does Joensuu need a strong University and a strong University of Applied Sciences?**

**PV:** “Perhaps the most important effect that the University has on everyday life in the Joensuu Region is evident in the numbers: more than 7,000 undergraduate and graduate students, more than 1,000 skilled employees and thousands of people participating in adult education.”

**PM:** “We have more than 4,000 students, with more than 1,100 of them studying for degrees in engineering. Our region needs skilled people and experts trained by us – experts in technology, health care, design and communication. The importance of the health care and welfare sector, for example, is increasing. Our expertise systems complement each other and help us both succeed. This is our strength.”



## JOENSUU REGION – Business and Technology

• With a population of 116,000, the **Joensuu Region** is one of Finland's fastest growing regional centres. In addition to Joensuu (almost 58,000 inhabitants), the region includes seven other municipalities (Kontiolahti, Liperi, Outokumpu, Pyhäselkä, Eno, Ilomantsi and Polvijärvi).

There are approximately 5,000 companies in the Joensuu Region. Plastics and metal, wood products, ICT, welfare and tourism are the region's major industries.

The region invests in the development of expertise. There are approximately 20,000 students in the Joensuu Region. 38.3% of the region's population have completed secondary education, and 17.7% have a higher educational qualification.

• **The North Karelia University of Applied Sciences** has more than 4,000 students who carry out their studies in 7 faculties and 23 Degree Programmes. Each year approximately 100 international exchange students study at the university.

• **The University of Joensuu** has six faculties and 8,300 students, of whom approximately 550 are from abroad. In addition, the Open University has 4,500 students.

The region is internationally renowned for its expertise in forestry, forest

research, wood technology, plastics engineering and tool manufacture. Other important fields of expertise include optics, information and communication technology, content production, cross-border co-operation and co-operation with neighbouring areas.

• **Joensuu Science Park Ltd** supports the development of expanding companies by offering business development services, transfer of technology and expertise, and an innovative operational environment.

• **The Joensuu Regional Development Company, Josek Ltd**, works to strengthen and diversify the region's industrial structure, develop its competitiveness and improve the operational conditions of businesses in an increasingly international environment.

• **The Regional Council of North Karelia** works to safeguard regional interests and develop the region. It is also the authority responsible for coordinating, for example, the funding granted through the EU's Objective 1 Programme.

• **The European Forest Institute (EFI)** is an international organisation and has an extensive network of experts in European forestry research.



[www.joensuuregion.info](http://www.joensuuregion.info)

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[www.efi.fi](http://www.efi.fi)

### Editing-in-chief:

Kari Hippo

University of Joensuu

[kari.hippo@joensuu.fi](mailto:kari.hippo@joensuu.fi)

Tel: +358 (0)50 593 2839

### Editorial staff:

Keijo Mutanen  
Anne Mujunen  
Ella Lindström  
Riikka Heikkilä  
Salli Soininen  
Reijo Muje  
Anu Ruusila

### Editing, layout and photos:

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[ideal@idealmainos.fi](mailto:ideal@idealmainos.fi)



Inward investment and business counselling  
**Joensuu Regional Development Company, Josek Ltd**

Keijo Mutanen, Managing Director

Tel: +358 (0)40 555 2943

[keijo.mutanen@josek.fi](mailto:keijo.mutanen@josek.fi) • [www.josek.fi](http://www.josek.fi)



Services of the Science Park and internationalisation  
**Joensuu Science Park Ltd**

Jari Lauronen, Managing Director

Tel: +358 (0)13 263 7230, +358 (0)50 572 3733

[jari.lauronen@carelian.fi](mailto:jari.lauronen@carelian.fi) • [www.carelian.fi](http://www.carelian.fi)



Regional development and safeguarding of regional interests  
**Regional Council of North Karelia**

Pentti Hyttinen, Executive Director

Tel: +358 (0)13 2654 110, +358 (0)40 546 5227

[pentti.hyttinen@pohjois-karjala.fi](mailto:pentti.hyttinen@pohjois-karjala.fi) • [www.pohjois-karjala.fi](http://www.pohjois-karjala.fi)