

Newsletter

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*Joining academia and business for new opportunities in
creating ERGOnomic WORK places*

A Word from the Editor - University of Maribor (P2)

Dear Readers, welcome to the 3rd ERGO WORK e-newsletter!

The ERGO WORK project continues to develop various activities that emphasise the importance of ergonomic workplaces for encouraging both the employment of people with disabilities, as well as improved working conditions for all employees.

Following the completion of the stakeholder survey and an in-depth analysis of existing study programmes containing Ergonomics Universal and Inclusive Design content, led by Coventry University, we began developing a new ERGO WORK curriculum. This is focused specifically on building relevant expertise in workplace design ranging from logistical solutions for dealing with accessibility problems, to the design of a suitable environment, tools and equipment for an efficient work performance.

In addition, we began implementing our pilot projects. In Poland this is focused on two projects aimed at tailoring existing workplaces to specific disability needs. In Slovenia two pilots involve designing new workplaces for those with

disabilities. Multidisciplinary groups consisting of students, professors, company staff and employees with disabilities will test the appropriateness of the developed curriculum and demonstrate their learning through these pilot projects.

We also continue to further enhance the visibility of the ERGO WORK project in the context of various events, advertisements, publications and the following social networks and websites. You can follow our updates at:

Website (<http://www.ergo-work.eu/>)

Twitter (https://twitter.com/ergo_work)

Facebook (<https://www.facebook.com/ergowork.project>)

Linkedin (<https://www.linkedin.com/groups/ERGO-WORK-8124849>)

Wishing you an interesting read!

University of Maribor, SI

ERGO WORK - Ergonomic Workplaces - Why?

ERGO WORK is a European project seeking to improve the ergonomic design of jobs and workplaces for employees with disabilities. It involves the collaboration of 10 partners from 6 European countries – Poland, Slovenia, the UK, Spain, Italy and Belgium. It focuses particularly on developing and testing new teaching material concerning the design of jobs and workplaces for those with disabilities, regardless of their impairment and special needs. The resulting ergonomics-based content may represent a future element of programmes in engineering, design, health care or business.

“Social Cohesion” is one of the seven main objectives of the Europe 2020 Strategy (1), and the promotion of health is an integral part of smart and inclusive growth objectives (4). Therefore, the European Agency for Safety and Health at Work (EU-OSHA) aims to determine research priorities in occupational health and safety (OSH), which will assist in achieving the goals of the Europe 2020 Strategy. Emphasizing inclusive growth fosters a higher-employment economy, in which one of the identified initiatives entitled “agenda for new skills and jobs” aims to improve job quality and working conditions. In order to achieve this goal, several horizontal activities have been identified:

- mainstreaming OSH research in other research disciplines, especially in economics, general health and environment
- transferring OSH research results to the workplace in a satisfactory and efficient way
- fostering intervention research, which plays an important role in the development, implementation and evaluation of OSH interventions at different levels
- emphasizing the importance of OSH communication and especially risk communication, above all in the area of new technologies, in order to deliver adequate information to different target groups in time and in an appropriate form
- fostering prevention through design, which will significantly minimise the work-related hazards and risks

The above mentioned actions and efforts are aimed at strengthening the labour market in general, which can significantly benefit from greater inclusion. The multidisciplinary field of ergonomics can support inclusion through improved design and adaptation of workplaces tailored to a variety of needs and foster cooperation between students with disabilities, educational institutions and businesses. By improving access to education in this field, and consequently workplace design, European workplaces will provide a more inclusive working environment.

It is argued that the teaching of both ergonomics and approaches to workplace inclusion currently lacks close cooperation and knowledge exchange between students, academia, schools, vocational training systems and businesses. There is considerable potential for closer collaboration and more effective education in the area. The ERGOWORK project aims to demonstrate and test mechanisms for achieving this goal through a pilot programme testing ergonomic knowledge exchange.

In summary, the ERGO WORK project aims to:

- improve cooperation between academic and business communities in relation to workplace design and inclusive employment;
- improve learning and teaching methods and contents within the field of ergonomics in order to develop relevant expertise;
- support equal employment opportunities, universal design and a high-quality working environment for all employees, with a specific focus on disability.

Curriculum Design

The first phase of the ERGO WORK project involved a survey to assess current workplace inclusion and understanding of ergonomics across the partner countries. The survey focused on existing curricula (regarding the inclusion of ergonomics in study programs), employers' attitude, interests and needs concerning the employment of people with additional needs, and the extent to which individual needs were being met in the organisation of suitable workplace. The findings have been used to make recommendations concerning taught content in ergonomics and how this might be applied to improving workplace inclusion.

On the basis of the results, it is planned to improve and develop ergonomics curriculum content in Poland and Slovenia. The University of Maribor as a higher education institution with a wide range of study programmes is developing the curriculum in cooperation with the University of Siedlce Poland. Coventry University as a higher education institution with strong expertise in the field is monitoring, advising and evaluating both the process and the outcomes. Assistance in developing the curriculum is also provided by INFAD (The European Association of Evolutionary Psychology Elderly, Children and Disability) as an international scientific association, with experts in ergonomics at hand. In the development of the curriculum an interdisciplinary group of experts from the fields of ergonomics, engineering, economy, sociology and psychology will be involved.

Other ERGO WORK partners will evaluate the content from their specific point of view and approve the appropriateness of the supplementary teaching modules before testing them through the pilot projects. In Slovenia, the course content will be offered as an elective module, thus providing students from different fields of study with the opportunity to participate. The project thus aims to improve the taught content focused on ergonomics and thereby increase the level of relevant expertise that can be transferred to the workplace.

Implementation of the Pilots

Having developed the new curriculum material, this will be tested through four pilot projects. Four multidisciplinary groups consisting of students, professors and companies will be established. They will work together through two pilot projects implemented in Slovenia, and two pilot projects implemented in Poland.

Testing of the ergonomics taught content will be performed in a real-business environment, to address real-business needs and challenges in creating adapted and ergonomic workplaces. In order to achieve this goal, an introductory workshop and training for each multidisciplinary group will be organized followed by a new work programme:

In Slovenia, two new workplaces designed for full inclusion are envisaged. Multidisciplinary groups will work on the development of a product and work programme design, followed by the development of new tailor-made workplaces.

In Poland, two existing workplaces will be tailored to specific disability related needs. The process will focus mainly on the re-design/re-organisation of existing workplaces.

Key to the projects will be the involvement of users. Users with specific needs will be involved in developing and redesigning the workplace to ensure their needs are met. A comprehensive approach to the assessment of individual and business needs, and barriers to inclusion is of key importance. This will take into account the characteristics, wants, needs, lifestyles of the individual for whom we are designing, rather than focusing only on their performance or medical condition (Brejc, 1996).

The primary goal of the project is to create an environment promoting sustainable cooperation among all relevant stakeholders in order to raise awareness of ergonomics in general and with regard to workplace design. In order to achieve this goal, relevant systems and policy-making institutions at the European (EASPD) and national level will also be addressed.

Creativity workshops

Creativity workshops represent an important part of ERGO WORK pilot projects. Creativity workshops will be organized in order to select products and define the work process, workplaces and the employee / users of the workplace, to be involved.

Workshops will comprise the following:

- introductory lecture on creativity and creativity techniques,
- understanding employee needs,
- product selection by means of the 635 method,
- morphological analysis and selection of at least two feasible ideas (idea A and B) for the development of a product, work process and adequate workplaces,
- evaluation of ideas including risk factors by means of the test method and selection of the most feasible idea,

The next step is the preparation of project documentation for product development and the formation of multidisciplinary groups of students, professors, company staff and employees, who will participate in pilot projects. In Slovenia, pilot projects will be implemented in cooperation with three ERGO WORK project partners – the University of Maribor and the following three companies: OZARA d.o.o., KOVINARSTVO BUČAR, Drago Bučar s.p. and HTZ IP d.o.o. Velenje as well as the associate project partner, the Institute for Creative Processes in Business and Research.

In Poland, the procedure will be conducted in a slightly different manner since companies will neither develop nor introduce new products but will focus on the re-organization of existing work processes and workplaces that can be improved to better cater for employee needs. For this purpose, meetings with partner companies Łuksja Sp. z o.o. and Centrum Medyczo-Diagnostyczne as well as interested associate companies and representatives of the University of Siedlce are organized in order to implement pilot projects (from autumn 2014 to spring 2015) in the most efficient manner.

Activity Reports

Turkey: ERGO WORK presentation at the "A NEW START" partnership meeting in Denizli (4 - 5 June 2014)

The ERGO WORK project was presented to the participants of the "A NEW START" partnership meeting in Denizli, Turkey, from 4 through 5 June 2014. On behalf of the ERGO WORK partnership, Claudio Sdogati presented the aim, goals, expected outcomes, structure of the partnership and the ERGO WORK website to the participants of the public event organized in the Yunus Emre Vocational School in Denizli. The ERGO WORK project was presented at this event because "A NEW START" focuses on a similar topic. "A NEW START" is a multilateral project funded from the Lifelong Learning Programme and involving the collaboration of partners from five countries (Turkey, Italy, Spain, Portugal and Great Britain). It is aimed at the development of new methods for the training of persons with disabilities in order to facilitate entry into the labour market and employment (<http://www.anewstart.eu>).

Participants had many questions, one of which attracted considerable attention: "Could the ERGO WORK project be considered a natural successor of the "A NEW START" project?"

This is a reasonable question since the aim of "A NEW START" is to introduce new vocational training courses for persons with disabilities, and its primary objective is to design new vocational education and training paths in order to facilitate entry into the labour market and encourage employment.

Teachers, coaches, family members, school management, politicians, decision makers and project partners agreed that an economic initiative could be introduced in order to encourage companies to design personalized and ergonomic workplaces. Although national and European legislation emphasise the importance of labour market inclusion, they lack concrete financial incentives.

Slovenia: Product ideas from students of the Faculty of Mechanical Engineering of the University of Maribor

In the summer semester of the academic year 2013/2014, second-year students of the master's programme "Product Design" conducted by the Faculty of Mechanical Engineering of the University of Maribor searched for product ideas for persons with disabilities in the context of their term papers for the course "Ergonomic Design". By the end of the semester, their ideas were presented to the public. Topics varied from a voice activated navigation aid for blind and visually impaired people, to a specially designed blanket with different attachments for people with dementia to reduce the burden on their caregivers. Students also suggested solutions for people with physical disabilities ranging from a baby stroller for parents in a wheelchair, to a shopping cart for wheelchair users, and a special aid for wheelchair users to get in and out of the car without assistance. A manually operated tricycle for paraplegics was also among the most interesting ideas. The design and solutions for construction details are shown in Figure 1 and 2 respectively.

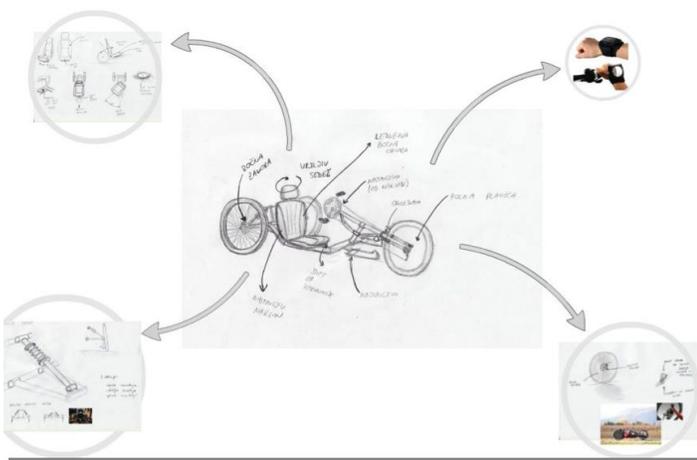


Fig. 1

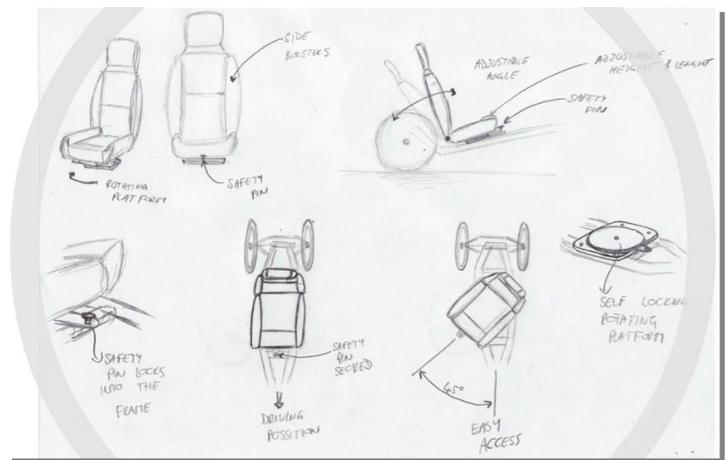


Fig. 2

Spain: ERGO - WORK presentation in Badajoz (7 July 2014)

In accordance with the ERGO WORK dissemination plan, project results were presented on 7 July 2014 in Badajoz, Spain. The first meeting was envisaged in the context of summer courses of the University of Salamanca, however, INFAD decided to change the programme after a call from the Municipality of Badajoz.

At the meeting, the ERGO WORK project activities were presented. Over 50 participants attended the event, among them various university professors and experts.



Figure: G. Florencio Vicente, INFAD president (left) and Ms Ana Sánchez with participants

Spain: ERGO - WORK presentation in the context of summer courses at the University of Cantabria in Corrales de Buelna (July 2014)

The ERGO WORK project was presented in detail in the context of summer courses on disability organized in the second week of July at the University of Cantabria in Corrales de Buelna. The following topics were addressed: quality of life of persons with disabilities, communication, technical and medical devices, research and autism.



Figure: Dr. Ana Sánchez and Dr. José Antonio del Barrio (both INFAD) at the presentation of the ERGO WORK project

The ERGO WORK project was presented by Dr. José Antonio del Barrio, director of summer courses at the University of Cantabria, and Dr. Ana Isabel Sánchez.

Active participation in the summer courses attracted considerable attention for the ERGO WORK project activities and contributed to the dissemination of information and project sustainability. The main topic focused on ergonomics and the adaptation of workplaces in the academic community.

Over 130 participants attended the summer courses, esp. from disability associations, public institutes and companies. Dr. Domingo González-Lamuño and Dr. Alfonso Barragan, both famous representatives of the academic and political community, were also among the attendees.

Poland: AHFE 2014 – 5th International Conference on Applied Human Factors and Ergonomics, Krakow (19-23 July 2014)

A paper detailing some of the early results of the ERGO WORK project was presented at AHFE 2014 – 5th International Conference on Applied Human Factors and Ergonomics held in Krakow, Poland, from 19 through 23 July 2014. The paper was written by partners in Poland, UK and Slovenia.

O'Sullivan, G. Moody, L. Saunders, J. Čurin, A. Leber M. (2014) ERGO WORK - Creating the Best Places to Work. Proceedings of the 5th International Conference on Applied Human Factors and Ergonomics AHFE 2014, Kraków, Poland 19-23 July 2014 Edited by T. Ahram, W. Karwowski and T. Marek / In Rebelo, F. Soares, M. Ergonomics in Design, Usability and Special Populations Part II. AHFE Conference / CRC Press/ T&F

Additional information: <http://www.ahfe2014.org>

Proceedings of the 5th International Conference on Applied Human Factors and Ergonomics AHFE 2014, Krakow, Poland 19-23 July 2014 Edited by T. Ahram, W. Karwowski and T. Marek

ERGOWORK - Creating the Best Places to Work

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ABSTRACT

"Social Cohesion" is one of the seven main objectives of the Europe 2020 Strategy, and including disabled people in the labour market is a key element. There are challenges associated with providing fit for purpose workplaces and job design for full inclusion of people with disabilities. It promises a discipline has a key role to play. This paper describes the premise behind, and initial research undertaken within the 10 partner, European funded project 'ERGO WORK - creating academic and business for new opportunities in creating ERGOWORK 'WORKplaces'. The project across Europe is variable in terms of workplace inclusion, and in the application of ergonomics and universal design. The project aims to encourage cooperation between universities, businesses and other organisations to improve learning, teaching and knowledge transfer in respect to ergonomic workplace design for disability. In the long term, the impact of the project is intended to be improved equal employment opportunities, enhanced understanding of universal design and principles for providing quality working environments in Europe. This paper describes the project rationale and some preliminary data from a scoping study to understand the provision for disability made in workplaces across Poland, Slovenia and the UK. Future work is outlined.

Keywords: persons with disability (PWD), employment, ergonomics, corporate social responsibility, employees' needs.

INTRODUCTION

The financial crisis of 2008 has resulted in significant unemployment. In November 2013 an estimated 26.553 million (12.1%) in the EU were unemployed (European Commission Eurostat 2014). For people with disabilities the situation is worse, in developing countries, 80% to 90% of working age are unemployed, in industrialised countries the figure is between 50% and 70% (UN Enable 2014).

In the UK almost one in five persons has a disability. The employment rate of working disabled employees is 47.8%, compared with 73.9% of non-disabled people, and disabled people are nearly 4 times as likely to be unemployed as non-disabled people (Department for Work and Pensions 2013). In the UK, the Equality Act 2010 covering disability (as well as age, sexual orientation, religion/beliefs etc) legally protects people from discrimination in the workplace and in wider society. It requires equal treatment in access to employment, and employers and service providers are obliged to make reasonable adjustments to the workplace to overcome barriers experienced by disabled people. Reasonable adjustments should be made in a range of ways for example through workplace features, training, altered hours, changes to policies, and provision of assistive technology.

In a time of high unemployment, employers are generally less interested in fulfilling employees' individual needs. This trend is especially visible in poorer European countries for example in Poland where employees are often underpaid with poor job agreements (Kochanska 2014). In a situation where non-disabled employees are struggling with many agreeing to work in very unfavourable conditions, disabled persons are even more challenged to enter the labour market. In Poland, discrimination against Persons with Disabilities (PWD) (12.1% of the population) has been tackled in numerous ways, however whilst this role is seen to be increasing, PWD are still largely invisible in public (Bogucki 2012). There are about 3.4 million people with disabilities in Poland, of whom 3.1 million are of working age, only 465,000 (17.1%) work (GUS 2013). Compared to Poland with at least

Slovenia: 1st Creativity workshop of the Institute for Creative Processes in Business and Research as part of preparations for the implementation of pilot projects aimed at designing ergonomic workplaces for PWDs (8 August 2014)

The ERGO WORK team began preparations for the implementation of pilot projects. The first creativity workshop for product selection and the definition of work processes, workplaces and disabilities, to which the work process will be adapted, was held on 8 August 2014 in Slovenia. The workshop was organized by the Institute for Creative Processes in Business and Research, the associate project partner, in cooperation with OZARA d.o.o. and KOVINARSTVO BUČAR, Drago Bučar s.p.



Figure: Creativity workshop of the 1st ERGO WORK pilot project

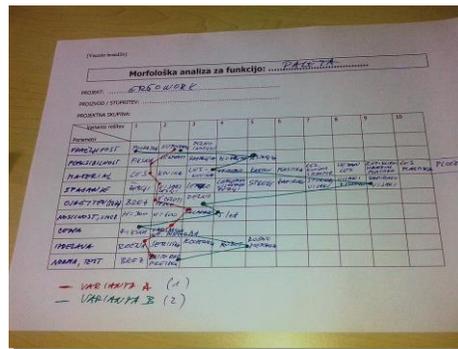


Figure: Morphological analysis

ERGO WORK presentation at REHA days 23. - 24. September 2014

The project partner OZARA d.o.o. presented the ERGO WORK project at an important national event entitled “Occupational and Vocational Rehabilitation Days” (REHA) that ran from 23-24 September 2014 in Portoroz, Slovenia. REHA days are organized through cooperation between the following organisations in Slovenia: the Ministry of Labour, Family, Social Affairs and Equal Opportunities, the Employment Service, the Institute for Pension and Disability Insurance, the University Rehabilitation Institute of the Republic of Slovenia (SOČA) and the Association of Vocational Rehabilitation Providers.



Figure: Mr. Miodrag Petrovič, Ozara d.o.o.



Figure: REHA Days in Portoroz

Upcoming Meetings/Events

CREATIVITY WORKSHOPS AND MEETINGS OF COMPANIES AS PART OF PREPARATIONS FOR THE IMPLEMENTATION OF PILOT PROJECTS

In the Autumn a series of activities will take place to support the implementation of the pilot projects, this will include a creativity workshop with the associate project partner HTZ Velenje, I.P., d.o.o. and meetings with Polish companies.

Following the results of the pilot implementation will be extremely interesting! Not only in terms of product development and adaptation of work processes and workplaces, but also in terms of the cooperation between students and entrepreneurs. The four month long pilot will involve exchanging knowledge and experience, and testing learning material through application to ergonomic workplace design.

ERGO WORK PRESENTATION FOR THE MEDIA IN SALAMANCA – October 2014

The project partner INFAD will present ERGO WORK project activities to the media in Salamanca.

INFAD WILL PUBLISH A MONOGRAPH ON ERGONOMICS – November 2014

INFAD's President, Mr. Florencio Vicente, has announced the upcoming publication of a special issue about ergonomics in the scientific journal "International Journal of Developmental and Educational Psychology, INFAD: Revista de Psicología". The aim is to collect and disseminate advances which are taking place in the field of ergonomics, including the development of the ERGO WORK project. Experts in this field will be invited to participate, as well as researchers and participants of ERGO WORK.

Additional information: <http://infad.eu/RevistaINFAD/>

INFAD WILL PARTICIPATE IN THE "XI HISPANO LUSO CONGRESS" (IN PARTICULAR IN "HEALTH OF OLDER PEOPLE" CONFERENCES), WHICH WILL BE HELD ON 5-8 November 2014 at University of Beira Interior (Portugal).

The conferences will address two subjects: "Entrepreneurship in Older People (Age?)" and "Ergonomics for Disabled People". Under the topic of "Ergonomics for Disabled People" there will be three speeches:

- President of INFAD (Mr. Florencio Vicente) will present the ERGO WORK project.
- Ms. Ana Sánchez (INFAD's partner) will speak about "Ergonomic models particularly designed for Disabled and Older People".
- "Robots and other virtual agents" speech by Mr. Rafael Raya (Bioengineer of "Iberoamerican Association of Assistive Technologies for Disability - CSIC").

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This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.