

Establishement of the Regional Animal Welfare centre



Petya Petkova and Alexandra Hammond-
Seaman



The beginning of the story...2008

Workshops held in Ohrid 27 –29 March 2008:

“Animal Welfare: The European Framework”

***“The 3Rs concept –
The Legal Framework on the protection of
laboratory animals”***

130 participants -12 countries



The poster features the University of Ss. Cyril and Methodius Faculty of Veterinary Medicine logo at the top left and the RSPCA International logo at the bottom left. The text on the poster reads: "INTERNATIONAL WORKSHOPS", "Animal Welfare: The European Framework" AND "The 3Rs concept - The legal Framework on the protection of laboratory animals", and "March 27-29. 2008 Ohrid, Republic of Macedonia".



Background



- ❧ Western Balkan Veterinary Network (wbvn.net) – unique platform for the advancement of animal welfare in the Western Balkan region;
- ❧ WBVN relied on partners working together, and was set up by the RSPCA and the Faculty of Veterinary Medicine, Skopje, Macedonia.
- ❧ The network combined the research capabilities of seven major universities in the Western Balkans and Turkey with leading animal welfare research centres in western Europe.
- ❧ One of the network's core was to initiate and develop research in the field of animal welfare.



**Western Balkans
Veterinary Network**
for Animal Welfare



International

Western Balkan veterinary network



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**Western Balkans
Veterinary Network**
for Animal Welfare



International

WBVN



- ❧ The WBVN was established primarily to encourage and develop best practice in animal welfare amongst veterinary professionals.
- ❧ Network worked with a wide range of stakeholder organisations to achieve this goal.



**Western Balkans
Veterinary Network**
for Animal Welfare

Some institutions included

☞ Albania

*Faculty of Veterinary Medicine,
Agricultural University of Tirana*

☞ Bosnia-Herzegovina

*Veterinary Office of Bosnia and
Herzegovina, Ministry of Foreign
Trade and Economic Relations*

*Faculty of Veterinary Medicine,
University of Sarajevo*

☞ Croatia

*Ministry of Agriculture, Fisheries
and Rural Development,
Veterinary Directorate*

Croatian Veterinary Institute

*Faculty of Veterinary Medicine,
University of Zagreb*

PIK Vrbovec d.d.

☞ Kosovo

*Kosovo Veterinary and Food
Agency*

*Faculty of Agriculture and
Veterinary Studies, University of
Prishtina*

☞ Republic of Macedonia

*Ministry of Agriculture, Forestry
and Water Management*

*Faculty of Veterinary Medicine –
Skopje*

Agria Klanica, Veles.

☞ Montenegro

*Ministry of Agriculture, Forestry
and Water Management*

*Veterinary Directorate,
Government of the Republic of*

Montenegro

☞ Serbia

*Ministry of Agriculture, Forestry
and Water Management*

*Faculty of Agriculture, University
of Belgrade*

*Faculty of Veterinary Medicine,
University of Belgrade*

☞ United Kingdom

*Animal Welfare Training,
University of Bristol*

RSPCA International

Activites



WBVN delivered a large programme of training and education in the Western Balkans and Turkey, including:

- professional training on the welfare of animals in the food chain
- research animal seminars to share EU regulations
- alternative methods in veterinary education
- Welfare Outcome Assessment (WOA) – assessing farm animals for their health, physical condition and behaviour
- dog catching and handling workshops
- workshops on the welfare of poultry farming, from production and processing to slaughter,
- farm and abattoir welfare assessment.



**Western Balkans
Veterinary Network**
for Animal Welfare

Training of national trainers and development of training courses for animal welfare officers



Animal Welfare Training
www.awtraining.com

Research • Training • Consultancy • Auditing • Inspection for the Food Industry



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Members of AWTraining are Research Fellows or Lecturers at The University of Bristol, UK, Department of Clinical Veterinary Science, Division of Farm Animal Science with collectively over 150 years of research experience in the field of animal welfare during transport, stunning, slaughter, killing, carcass and meat quality relating to red meat animals, poultry and aquaculture. With over 300 peer reviewed publications ranging from Nature to Veterinary Science, members and invited participants of European and International committees, FAO, OIE, EFSA as well as regular speakers at International conferences, AWT staff are well qualified to provide professional welfare training for the food industry.

Paul Whittington - Research / Teaching Fellow
Steve Wotton MBE - Senior Lecturer
Lindsay Wilkins - Research Fellow
Dr. Andy Buttersworth MRCVS - Research Fellow
Justin McKinstry - Research Associate
Alison Weaver (PhD student).

Since 1993 AWTraining has been providing professional consultancy and training in animal welfare during food production. Both the general and specialised courses as well as full educational programs are recognised as providing essential knowledge and skills relating to animal welfare for for many governments, professional organisations and international companies worldwide. AWT is currently engaged in authoring and / or delivering professional consultancy, training and educational programs across Europe, Asia & the Far East, Central and South America.



The concept of this type of training in animal welfare was conceived back in 1993. At this time AWT was recognised for providing 'excellence' in training and education at the World Food Congress in the Hague, Netherlands. In 2006 AWTraining was awarded the British Society of Animal Science / RSPCA award for "Outstanding contributions to scientific research, information transfer and training in the area of farm animal welfare at stunning and slaughter".

Increasingly, the food industry is a world market. Animal Welfare consultancy, training courses and full educational 'Training trainers' programs have and are being delivered worldwide helping to generate a level of understanding of welfare and quality issues. Backed up by peer reviewed research, AWTraining seek to provide the best and most relevant information sympathetic to individual needs of the country, it's industry and personnel.



Outcomes



- œ 200+ trained professionals
- œ Series of workshops in collaboration with the competent authorities run in Macedonia, Croatia, Serbia and Turkey
- œ Development of guidelines and standards for producers and industry operators
- œ Recognition by the EU Commission and links established for inclusion of WBVN members into European research projects



**Western Balkans
Veterinary Network**
for Animal Welfare

Research animals RAWC-Balkan



Project: Alternative techniques for protection of animals used for experiments and other scientific purposes

AGR 41044 TAIEX workshop Role of the competent authority in regulating scientific procedures using animals



WBVN
Western Balkans
Veterinary Network
for Animal Welfare

Alternative techniques for the protection of animals used for experimental and other scientific purposes:

3Rs - the reduction, refinement and replacement of animals used in research

Endoscopy and bronchoscopy of dog plastinated specimens

WBVN
Western Balkans
Veterinary Network
for Animal Welfare

BENEFITS AND OPPORTUNITIES
The educational benefit is that plastinated specimens would be catalysts for bringing case-based learning into the curriculum. An alternative source of specimens for teaching purposes would support specialist endoscopic training for future veterinarians. Providing them can make a contribution to the education of a future skilled and compassionate veterinarian.

Endoscopy and bronchoscopy of dog plastinated specimens

CLINICAL CLASSES
Test for the efficiency and efficacy of alternative educational materials. A comparison test is performed in the classroom by performing an endoscopy on live animals and on plastinated specimens. Practical training of endoscopy on plastinated specimens and the establishment of clinical learning provides opportunities to replace the use of animals in clinical skills, surgery or other practical classes and establishes a student-based self-experimentation programme for the replacement of animals in practical surgery classes. Clinical work with animal patients supports progressive teaching and the replacement of animals. It further links to the development of innovative teaching methodologies, curriculum development, and assessment methods.

CONTRIBUTION TO EU POLICIES AND EU INTEGRATION
One of the main reasons for developing the project is a requirement in Directive 86/609/EEC on the protection of animals used for experimental and other scientific purposes. This directive requires that the Commission and the Member States actively support the development, validation and acceptance of methods which could reduce, refine or replace the use of laboratory animals.
Article 23:
The Commission and Member States should encourage research into the development and validation of alternative techniques which could provide the same level of information as that obtained in experiments using animals, but which involve fewer animals or which entail less painful procedures, and shall take such other steps as they consider appropriate to encourage research in this field.

Project carried out at: Faculty of veterinary medicine Skopje, R of Macedonia
Faculty of veterinary medicine Zagreb, Croatia
Project Period: September 2008-February 2010
For more information: Prof. Dr. Vlatko Ilićski, vilićski@fvm.ukim.edu.mk
Prof. Dr. Plamen Trojancanec, plament@fvm.ukim.edu.mk
Asis. Msc. Lazo Pendovski, lpendovski@fvm.ukim.edu.mk

ACTIVITIES:
Compare the conventional and alternative teaching programmes in veterinary education.
Development of a new freeware CD-ROM video model to achieve replacement
Distribution of approved alternative educational materials

AIMS:
The development of course syllabi for anatomy incorporating plastinated specimens.
The establishment of a programme for animal use in anatomy and surgery training.
The development of a common learning programme selection for anatomy and surgery.

ANATOMY CLASSES:
Practice of the digestive and respiratory systems
A whole plastinated canine digestive and endoscopic (esophagogastroscopy, duod explorations.
The visceral topography and the endoluminal abdominal cavity is studied. The dissected internal organs allow the students to study



Welfare Outcome Assessment – assessing farm animals



Animal, page 1 of 9 © The Animal Consortium 2016
doi:10.1017/S175173111600255X



Gait and posture discrimination in sheep using a tri-axial accelerometer

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(Received 23 June 2016; Accepted 1 November 2016)

Temporo-spatial observation of the leg could provide important information about the general condition of an animal, especially for those such as sheep and other free-ranging farm animals that can be difficult to access. Tri-axial accelerometers are capable of collecting vast amounts of data for locomotion and posture observations; however, interpretation and optimization of these data records remain a challenge. The aim of the present study was to introduce an optimized method for gait (walking, trotting and galloping) and posture (standing and lying) discrimination, using the acceleration values recorded by a tri-axial accelerometer mounted on the hind leg of sheep. The acceleration values recorded on the vertical and horizontal axes, as well as the total acceleration values were categorized. The relative frequencies of the acceleration categories (RFACs) were calculated in 3-s epochs. Reliable RFACs for gait and posture discrimination were identified with discriminant function and canonical analyses. Post hoc predictions for the two axes and total acceleration were conducted, using classification functions and classification scores for each epoch. Mahalanobis distances were used to determine the level of accuracy of the method. The highest discriminatory power for gait discrimination yielded four RFACs on the vertical axis, and five RFACs each on the horizontal axis and total acceleration vector. Classification functions showed the highest accuracy for walking and galloping. The highest total accuracy on the vertical and horizontal axes were 90% and 91%, respectively. Regarding posture discrimination, the vertical axis exhibited the highest discriminatory power, with values of RFAC (0, 1) = 99.95% for standing; and RFAC (-1, 0) = 99.50% for lying. The horizontal axis showed strong discrimination for the lying side of the animal, as values were in the acceleration category of (0, 1] for lying on the left side and (-1, 0] on the right side. The algorithm developed by the method employed in the present study facilitates differentiation of the various types of gait and posture in animals from fewer data records, and produces the most reliable acceleration values from only one axis within a short time frame. The present study introduces an optimized method by which the tri-axial accelerometer can be used in gait and posture discrimination in sheep as an animal model.

Keywords: gait, posture, acceleration, accelerometer, sheep

Implications

Sensor technologies, such as tri-axial accelerometers, could provide valuable information on animal health, behaviour and welfare, and consequently, on management practices. The present study introduces an optimized method for classifying different types of gait (walking, trotting and galloping) and posture (standing and lying) in sheep, using a tri-axial accelerometer. Data optimization with this method is based on identification of the most relevant data on one axis of the accelerometer, for classification of gait and posture. The algorithm developed with this approach can be integrated into sensor devices, which can create the basis for simple, cost-effective monitoring of animals.

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Introduction

Observation of the locomotion and posture of an animal is the first step in inspecting its general condition, and can be used as one indicator of overall health and behaviour (Moreau *et al.*, 2009; Weary *et al.*, 2009). Moreover, the activity level and energy expenditure of an animal (Lachica and Aguilera, 2005) is indicative of the management and housing conditions to which it is subjected (Ito *et al.*, 2009; Ledgerwood *et al.*, 2010) at both the individual and herd levels. The definition of gait suggests that terrestrial locomotion is a continual cycle of repeated movements, manifested as strictly defined patterns of leg movement (Alexander, 1989).

When patterns of locomotion and body postures are considered, observations of only one or a few key points on the leg can provide sufficient temporo-spatial information for the entire body of the animal. Animals must be undisturbed in an



And then - 2012



At the large meeting in Teramo, Italy representatives of WBVN concluded that there is a need to upgrade:

Regional Animal Welfare Centre - www.RAWC.eu

RAWC – for Balkans



- A lot of relatively small countries with similar cultural and historical heritage.
- Lack in experts per country itself
- Specific topics for the region (i.e. stray dog problem)

RAWC



- No legal status but bound by ToR
- Hosted by Croatian Veterinary Institute in Zagreb a that provides secretariat
- Chair appointed every year – Petya Petkova (Bulgaria)
- Steering Committee
- Three years of funding provided by RSPCA

HOME NEWS REGIONAL PRIORITIES ABOUT US CONTACT US ONLINE

The role and objectives of Regional Animal Welfare Centre

by ADMIN on May 22, 2015 - 8:05 am

Based on the conclusions of meeting held in Teramo in the April of 2012, Regional Animal Welfare Centre (RAWC) was formed and Terms of Reference (ToR) were signed by 5 different countries from the region (Competent authorities, Universities and Institutes). The role of the RAWC is defined in the ToR as follows: to provide a scientific, practical and ethical advice to the key stakeholders on AW issues and to coordinate the activities in the Balkan region.

RAWC has two major objectives:

Objective 1 – Based on specific EU legislation and internationally agreed guidelines – collect and analyse existing data in Balkan region to develop scientific advice in implementing the EU legislation related to uneven spread of knowledge in different parts of the Balkan region; and

Objective 2 – Based on specific EU legislation – develop and implement strategies based on the transfer of knowledge and expertise to competent authorities and stakeholders in order to improve the level of understanding of the legislation and its implementation and enforcement.

To be able to meet this Objectives, RAWC has defined its development STRATEGY and specific tasks.

SEARCH

SOCIAL LINKS

CONTACT INFO

You can contact us on e-mail info@rawc.eu or directly over our online [contact form](#).

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10 000 Zagreb
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RECENT POSTS

- One Welfare
Feb 17, 2017
- Workshop announcement: Regional approach to the implementation and enforcement of Reg. (EC) 1099/2009
Jan 16, 2017
- EU platform on Animal Welfare established!
Jan 25, 2017
- Steering Committee meeting in Skopje
Nov 10, 2016



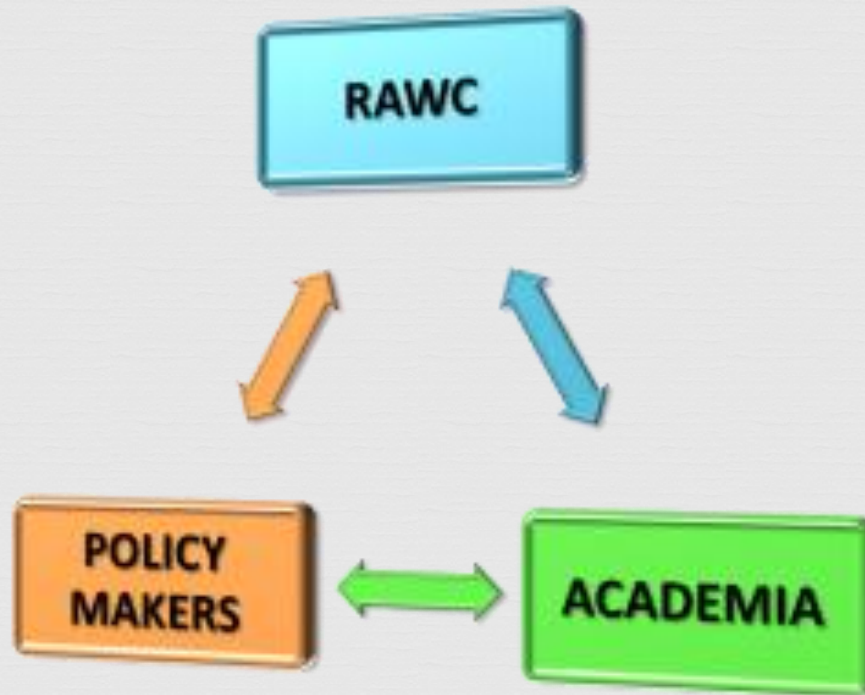
Steering Committee



Members of the Steering Committee are mixture of sponsors, Academia and Policy makers from the region as follows:

1. Aleš Breclj (Slovenia)
2. Branka Buković Šošić (Croatia)
3. Alexandra Hammond-Seaman (UK)
4. Vlatko Ilieski (Macedonia)
5. Tomislav Mikuš (Croatia)
6. Petya Petkova (Bulgaria)
7. Dimitar Terzievski (Macedonia)
8. Inga Dujmović (Bosnia & Herzegovina)
9. Marijana Vučinić (Serbia).

Overall strategy of RAWC is to bridge over the gap between Academia and Policy makers in the region and to help them in the implementation of regional and international best practices in the field of Animal Welfare.





Specific tasks to achieve main objective:



- ❧ To build structures and processes to actively share knowledge and expertise related to the implementation of EU legislation.
- ❧ To conduct a screening and elaborate a clear map of the current situation and the priorities in the region.
- ❧ To facilitate the consistent implementation and enforcement of EU legislation through the identification of difficulties and bottlenecks as well as related risks for animal welfare.
- ❧ To advise on interpretation of national and EU laws.
- ❧ To develop knowledge strategies to overcome difficulties and bottlenecks and to assist MS and CCs with implementation of legislation.
- ❧ To increase stakeholders' awareness, engagement and cooperation in addressing animal welfare issues.

Short overview:



Two large workshops:

Strategic development of Animal Welfare in the Western Balkan Region (2014)

Vision for the future of Animal welfare in the Balkans (2015)

Six Steering Committee meetings

The screenshot shows the website of the Regional Animal Welfare Centre (RAWC). At the top left is the RAWC logo. The navigation menu includes: HOME, NEWS, REGIONAL PRIORITIES, ABOUT US, and CONTACT US ONLINE. The main content area features a news article titled "Held 2nd Regional Animal Welfare Experts meeting" by ADMIN on May 20, 2015. The article text states: "Regional Animal Welfare Centre in cooperation with Animal Welfare Unit of the Croatian Veterinary Institute (CVI) and Royal Society for the Prevention of Cruelty to Animals (RSPCA) organised a two day meeting 'Vision for the future of Animal welfare in the Balkans'. Meeting was held on on 6th to 7th of May 2015, in Terme Tuhej, Croatia." Below the text is a photo of Mihranović Castle in Terme Tuhej. A second photo shows a meeting room with people seated around a long table. The caption reads: "Meeting room was full till the end – photo taken during last session." Below the photos, it says: "Presentations are available for download in PDF's as follows:" followed by a list of speakers and topics: Terence Cassidy – 40 years of EU animal welfare legislation – what lessons have been learned about its implementation?; Paolo Dalla Villa – Relevance of animal welfare centre in Balkans cross linked with EU strategy and Teramo as OIE collaborative centre; Aleksandra Hammond Seaman & Tomislav Mikuš – From idea, thru project to reality; Petya Petkova & Vlatko Ileski – Mission, objectives and priority themes proposed of RAWC; and Implementation and enforcement of legislation. On the right side of the website, there is a search bar, social media links for Facebook and LinkedIn, contact information (Savska cesta 143, 10 000 Zagreb, tel: +385 1 61 23 650, fax: +385 1 61 90 841), and a section for recent posts, including "One Welfare" (Feb 17, 2017), "Workshop announcement: Regional approach to the implementation and enforcement of Reg. (EC) 1099/2009" (Jan 26, 2017), and "EU platform on Animal Welfare established!" (Jan 25, 2017). At the bottom right, it says "Steering Committee meeting in Skopje Nov 30, 2016".

Be His Hero campaign



OIE Platform
on Animal Welfare for Europe

**YOU CAN TELL
YOUR DOG ANYTHING...
... EXCEPT GOODBYE.**

This is a message from the World
Organisation for Animal Health
OIE / www.oie.int



Be His Hero



- ❧ Lunched in 8 Countries of the region (Albania, Bosnia&Herzegovina, Croatia, Kosovo, Bulgaria, Serbia, Macedonia and Montenegro);
- ❧ RAWC collaborated with OIE on translation, printing and distribution of the materials.



Literature:



- Members of the RAWC - prof Ilieski and prof Vučinić coauthored a guidelines regarding the ethical issues of animal testings.

O ETIČKOM VREDNOVANJU I NAČINU OBAVLJANJA
RETROSPEKTIVNE ANALIZE I ANALIZE KORISTI I
ŠTETA OGLEDA KOJI SE REALIZUJU NA
ŽIVOTINJAMA

Priručnik



What we are good at:



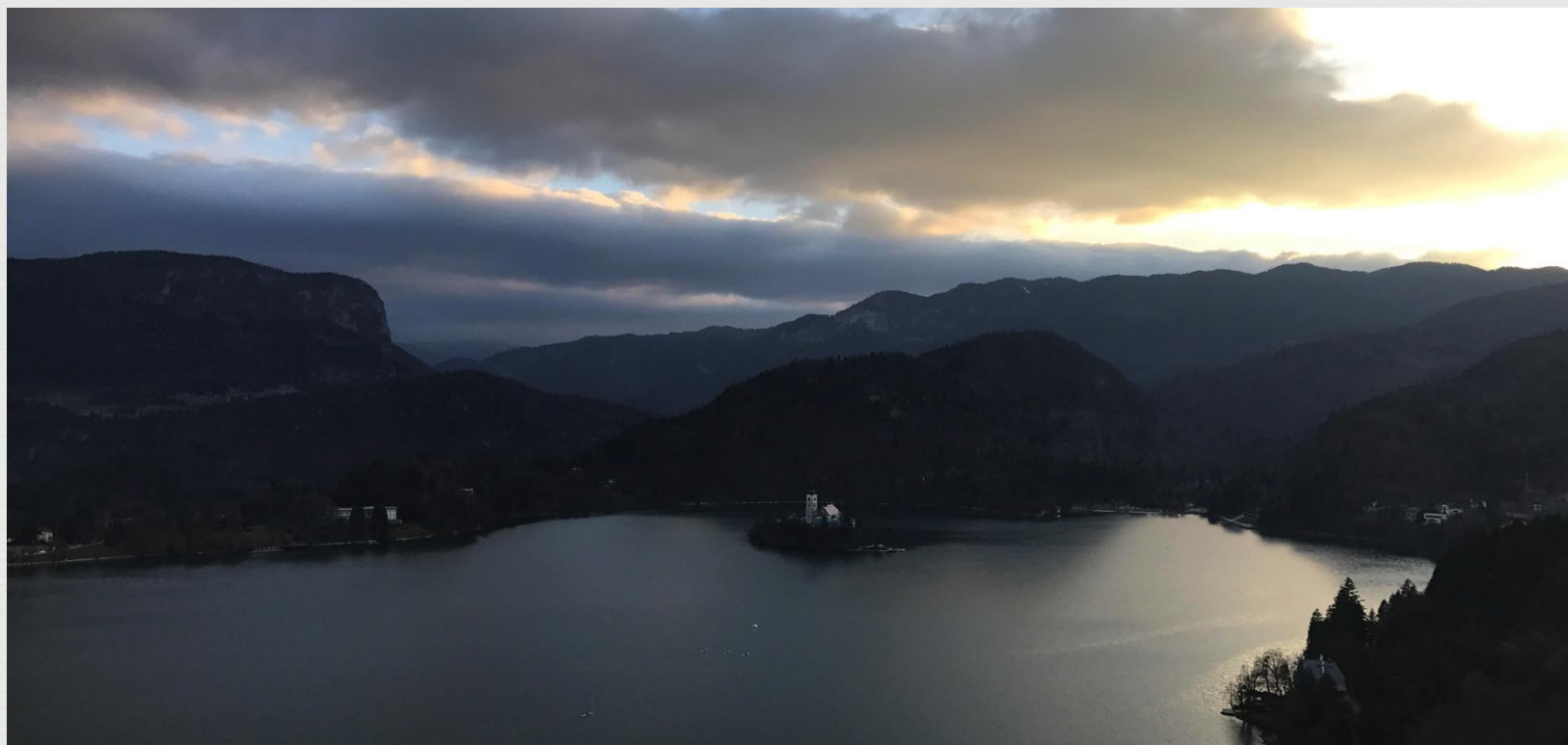
- ❧ Collaboration
- ❧ Organisation
- ❧ Knowledge transfer
- ❧ Best practice “from the region to the region”
- ❧ Enthusiasm and commitment



Challenges:



- ❧ Human resources
- ❧ Stable source of funding (Government or EU?)
- ❧ Continuous political will



Thank you!