

ARIES4 Deliverable D4.2 Collected Tasks and Solutions from the CRE8® S4 Regional Workshops





CONTENTS

Introduction and Reflections	1
The ARIES4 CRE8® Workshops	2
KAU/ Moelven AB CRE8® Workshop	3
KAU/ Teknik i Väst AB CRE8® Workshop	4
RIC "AG"/ Mechantronica CRE8® Workshop	5
RIC "AG"/ Senstate Technologies CRE8® Workshop	6
SDU/ Den Fynske Landsby CRE8® Workshop	7
SDU/ Odense Letbane CRE8® Workshop	8
UPNA/ Grupo Enhol S.L. CRE8® Workshop	9
UPNA/ Grupo AN CRE8® Workshop	10

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Introduction and Reflections

The document which follows is a compendium of the eight CRE8® workshops carried out in Bulgaria, Denmark, Spain, and Sweden by the ARIES4 partners between February 2023 and February 2025. It is intended to complement the *CRE8® S4 Guidelines* (ARIES4 deliverable D4.1), which explains how to organise such a workshop, by providing inspiration about the kinds of organisations and challenges which can be used.

The ARIES4 staff responsible for implementing the CRE8® workshops were asked to reflect on the process – which was widely acknowledged to be smooth and positive – and on the potential for future development. These points are given below:

- Normally a CRE8® is carried out on neutral premises (i.e. not on-site with the task-owners).
 However, one of the SDU CRE8® workshops was held at the task-owners' premises. With this specific task-owner (an outdoor museum) this was a very positive experience, since the students were immersed in the context, while avoiding any unnecessary bias.
- Many students had never received pitch-training prior to ARIES4. Students pointed out the
 freedom they experienced when facing these challenges without technology and with people they
 had only just met. They also stated that the experience really put their capacities to the test. The
 student satisfaction was very high and they would recommend other students to participate in this
 type of event.
- Task-owners can very easily give bias (e.g. give clues to what solutions they have already considered). That leads to the different teams presenting similar solutions in their pitches. Preventing this is one of the major tasks of the facilitators. The facilitators must go through exactly what the task-owner will present prior to the day of the event. This is included in the CRE8® S4 Guidelines but must be further stressed.
- It is often a challenge to recruit a cohort of multi-disciplinary students and also to reduce the number of no-shows on the CRE8® day. It requires good planning as regards recruitment and use of established communication structures in the organisation. UPNA in particular had very good results in the number of students participating and only a few no-shows.
- A practical issue during some of the CRE8® events was if and how the students should be able to take breaks from their respective workshop room (e.g. bathroom breaks). It is important to keep students from different teams apart once the challenge has been set, so as to avoid the exchange of ideas between teams.
- A recurring problem is how to get less confident students to express their thoughts, and, again, this is something which the facilitator must support with on the day by setting an open and friendly atmosphere.
- Two of the project partners, UPNA and RICAB, have already included or are including CRE8® in other projects. Since they now are experienced facilitators, they can carry out the workshops without any external support.





The ARIES4 CRE8® Workshops

ARIES4 partner	Task-owner	Challenge	Main SDG addressed	Page
KAU	Moelven AB	How do we become an attractive employer offering a place for the whole family and for a variety of lifestyles?	11 (Sustainable Cities and Communities)	3
KAU	Teknik i Väst AB/Arvika Municipality	In what creative ways can we reach out with knowledge to the residents of Arvika Municipality about the need for energy transition and the opportunities and challenges it entails?	•	4
RIC "AG"	Mechatronica	How do we retain talented young engineers graduated from the Technical University of Gabrovo?	8 (Decent Work and Economic Growth)	5
RIC "AG"	Senstate Technologies	How can we increase community engagement with air quality issues?	13 (Climate Action)	6
SDU	Den Fynske Landsby	How can a museum promote sustainability towards a new generation on a relevant basis?	11 (Sustainable Cities and Communities)	7
SDU	Odense Letbane	How can we encourage people to make a sustainable choice and use public transport instead of their own car?	11 (Sustainable Cities and Communities)	8
UPNA	Grupo Enhol S.L.	How can we generate an attractive value offer to attract and retain specialized and highly demanded talent in the sector to our company located in Tudela?	8 (Decent Work and Economic Growth)	9
UPNA	Grupo AN	How to position meat as a quality, ethical and sustainable option in the context of the growth of plant-based alternatives?	12 (Responsible Consumption and Production)	10

Each workshop description below gives details of the task-owning organisation, the background problem, the specific challenge, and a brief description of the students' solutions. The workshops are presented by partner name, in alphabetical order (as above).





Organising Partner and Workshop Date: Karlstad University (16 February 2023)

Task-owner: Moelven AB

Moelven AB is a Scandinavian industrial group specializing in sustainable building products and systems for the construction industry. With over 100 years of experience, it uses renewable resources like spruce and pine to create wood-based solutions, including lumber, glulam, building modules, and bioenergy. Operating



across Norway and Sweden, Moelven has 34 production companies and 41 sites, employing around 3,300 people. The company emphasizes innovation, sustainability, and reliability, aiming to contribute to a climate-conscious future while supporting Scandinavian living and architecture

Background problem: Moelven AB operates mostly in remote, sparsely-populated areas. This causes difficulties in recruiting sufficient numbers of staff, who often must move to the local area of operations.

Challenge: How do we become an attractive employer offering a place for the whole family and for a variety of lifestyles?

Solutions

Students from KAU, Karlstad Technology Centre and Hammarö Wood Technology College proposed that Moelven should host a company social-networking platform. This was partly to showcase the benefits of moving to and living in their areas of operation, but also to facilitate community building and social interaction between newly-arrived employees and existing staff. Ideas such as "Mill Town 2.0" and possibilities to provide financing for housing were also presented.





Organising Partner and Workshop Date: Karlstad University (19 February 2025)

Task-owner: Teknik i Väst/Arvika Municipality (Värmland)

Teknik i Väst AB, established in 2019 through a collaboration between Arvika and Eda municipalities, is a municipally owned resource company dedicated to maintaining vital infrastructure. It manages road upkeep, water and sewage systems, cleaning services, and also oversees electricity distribution, district heating, fiber networks, and power supply for Arvika. This joint effort enhances operational reliability and bolsters sustainable service delivery for key public utilities in the region



Background problem: The transition to more secure, green energy in Värmland (as in other areas) requires urgent action. However, transition measures, such as wind turbines and solar farms, often meet resistance from the public.

Challenge: What Can a Municipality Do to Improve Public Knowledge and Understanding of the Energy Transition?

Solutions

Students from KAU and Arvika Business Centre Vocational College advocated for proactive and positive local public engagement, inviting residents to co-create solutions as part of a citizen dialogue.

Regarding wind farm developments, for instance, residents could be involved in designing the area as an integrated part of the forest, incorporating elements of recreation, experiences, and tourism. An app with existing data sources was proposed to provide citizen value and motivation.





Organising Partner and Workshop Date: RIC "Ambitious Gabrovo" (16 November 2023)

Task-owner: Mechatronika

Mechatronika is a pioneering Bulgarian machine-building company established in 1961 in Gabrovo. Once state-owned and later privatized, it emerged as a leader in the packaging industry.

Specializing in the design and manufacture of innovative, automated machinery, the company produces systems for creating laminated tubes and tube-filling processes—primarily for cosmetic packaging. With a strong focus on quality, research, and technological advancement, Mechatronika competes globally, continually adapting its solutions to meet evolving industry demands.



Background problem: Well-qualified graduates are essential for Mechatronika's operations, but, after graduation, a great many graduates from the Technical University leave Gabrovo, either to return to their home towns or to seek employment elsewhere.

Challenge: How do we retain talented young engineers graduated from the Technical University of Gabrovo?

Solutions

The winning student team from TUG and local vocational colleges proposed a solution based on social sustainability. Since most university graduates come from other Bulgarian towns to study at the Technical University, they could be offered incentives to stay in place after graduation, rather than returning to their hometowns or moving to other population centres for employment.

These incentives included logistical and financial support to tackle a key problem for recent graduates – finding and renting accommodation in a city - in addition structured career development programmes offered in-house at Mechatronika.





Organising Partner and Workshop Date: RIC "Ambitious Gabrovo" (25 April 2024)

Task-owner: Senstate Technologies

Senstate is an environmental technology (EnvTech) company based in Bulgaria that delivers datadriven smart city solutions to enhance urban environmental stability and operational efficiency. Using advanced hardware systems and next-generation applications, Senstate gathers real-time sensor data to empower governments and businesses in analysing and addressing challenges such as air and water pollution and traffic congestion. Their expertise in signal processing, environmental sensing, and edge computing enables data-informed decisions and supports the transition toward net zero emissions



Background problem: Air quality poses serious health risks, especially in urban areas. Yet public awareness of the issue remains low, and data on air quality is not always comprehensive.

Challenge: How can we increase community engagement with air quality issues?

Solutions

Students from TUG, the High School of Mathematics and Natural Sciences, and the Aprilov National High School proposed the creation of a social platform for healthy outdoor living, including a mobile app with the possibility to report air pollution and encourage the platform-users through additional functionalities to participate actively in the process, identify problems and activate relevant institutions to find solutions.

An innovative strategy to promote the platform by deploying QR codes for direct reporting in public places was also presented.





Organising Partner and Workshop Date: University of Southern Denmark (15 May 2024)

Task-owner: Den Fynske Landsby

Den Fynske Landsby, also known as the Funen Village, is an open-air museum in Odense, Denmark. It features 25 historical, half-timbered buildings from the 18th and 19th centuries that recreate a traditional Funen village. Visitors enjoy immersive living history demonstrations, interact with period settings, and explore rural life with livestock, gardens, and crafts—all celebrating Danish heritage and sustainable practices



Background problem:

A core aim of Den Fynske Landsby is to use the experiences of the past to live in a cycle closer to nature and to provide inspiration for peoples' lives in the present with a particular focus on sustainability. However, many younger people view museums as outdated and lack interactive, digital experiences. Museums often struggle with limited social media presence and face competition from modern, techdriven entertainment.

Challenge: How can a museum promote sustainability towards a new generation on a relevant basis?

Solutions



The winning team from SDU proposed the building of a series of 'sustainable houses' on site as showcases for historical methods of living and working, with linked educational activities tailored to the requirements of different generations.

Other students focused on creating plant-based c lothing using period techniques for start-ups and SMEs as a way of both raising awareness of sustainability issues and generating revenue for the museum.

A very creative, meta approach was used by one of the teams: they made a pitch about process of creating their pitch as a way of exploring different solutions.





Organising Partner and Workshop Date: University of Southern Denmark (21 November 2024)

Task-owner: Odense Letbane

Odense Letbane is a modern light rail transit system serving Odense, Denmark. Covering a 14.2 km route with 25 stations, it links key areas—from Tarup Center through the city center to suburban hubs. Operating as frequently as every 7.5 minutes during peak hours, the network offers efficient, sustainable travel with user-friendly ticketing options like QR-based mobile payments. By reducing congestion and lowering emissions, Odense Letbane marks a significant advancement in regional urban mobility.



Background problem: Relying on personal cars over public transport worsens urban congestion, spikes pollution, and strains infrastructure. This choice increases fuel usage, reduces energy efficiency, and undermines investments in sustainable mobility, ultimately compromising environmental and community well-being.

Challenge: How can we encourage people to make a sustainable choice and use public transport instead of their own car?

Solutions

The SDU students focused on several areas for the improvement of current services. These included measures to make the navigation of the system clearer for users, and better accessibility for customers with diverse mobility needs.

The winning team also proposed fresh marketing strategies to appeal to a wider range of potential customers, especially with regard to the promotion of Odense Letbane's 'Park & Ride' service as a better alternative to driving in a busy urban environment.





Organising Partner and Workshop Date: Public University of Navarre (23 January 2024)

Task-owner: Grupo Enhol S.L

Originally focused on agriculture, Grupo Enhol SL is a conglomerate which has diversified into renewable energy, food manufacturing and sustainable real estate. Grupo Enhol consistently pursues responsible innovation and digital transformation, aiming to generate significant, positive impacts across various industries. Its commitment to sustainability and forward-thinking practices continues to reshape traditional market sectors, embodying a legacy of visionary entrepreneurship.



Background problem: As a conglomerate based in a relatively small city (population 35,000), Grupo Enhol struggles to compete for skilled employees, both nationally and with local major population centres (Pamplona, for example).

Challenge: How can we generate an attractive value offer to attract and retain specialized and highly-demanded talent in the sector to our company located in Tudela?

Solutions

Students from UPNA and VET students from CENIFER (Imárcoain) and IES Ega (San Adrián) participated in the CRE8® workshop. The winning team focused on enhancing employee well-being and strengthening community ties within the company.

Proposed solutions included providing accessible housing for employees and fostering a sense of community within these living spaces, offering childcare services to support work-life balance, and encouraging the use of sports facilities through bonus programmes as a means to connect people through shared activities. Another key idea was to enable employees to participate in or lead new internal projects, fostering a culture of innovation and personal growth. The winning solution stood out for its holistic approach to community-building and employee engagement. Several of the teams turned their pitches into a theatrical performance so as to further engage the jury.





Organising Partner and Workshop Date: Public University of Navarre (22 January 2025)

Task-owner: Grupo AN

Grupo AN is a dynamic agrifood conglomerate that merges deep-rooted agricultural traditions with cutting-edge innovation across Spain's vibrant agrifood sector. The group drives sustainable, quality-driven production—from farming and processing to distribution—leveraging advanced technologies and efficient logistics. This integration of heritage and modernity allows Grupo AN to meet both domestic and global market demands while enhancing Spain's reputation as a top-tier agri-food producer.



Background problem: High-quality plant-based alternatives to meat are growing ever more prevalent in the food sector, as customers move away from meat on health, ethical, environmental and economic grounds, leading to reduced competitiveness for meat producers.

Challenge: How to position meat as a quality, ethical and sustainable option in the context of the growth of plant-based alternatives?

Solutions

Students participated from UPNA, CENIFER (Imárcoain) and IES Ega (San Adrián). The winning team emphasised the importance of delivering the right information in the right context.

They proposed two complementary solutions: first, introducing a QR code system to provide consumers with transparent and detailed information about product traceability—from origin to processing; and second, reformulating animal feed to make it richer in protein while lowering production costs. Other teams explored the development of new chicken-based products (e.g., chicken-flavored potato chips), adding probiotics to enhance nutritional value, and targeting a dynamic consumer segment aged 30–40, which has both purchasing power and flexible consumption habits.

