

Present

Andrew Mackenzie	Lews Castle College
Clíodhna Ní Ghríofa	Údarás na Gaeltachta, Na Forbacha, Co. na Gaillimhe
Dr Ronan Sulpice	NUI Galway
Dr Masami Inaba	NUI Galway
Dr Agnes Mols Mortensen	TARI – Faroe seaweed
Dr Angus Murray	Lews Castle College
Dr Roy Bartle	Lews Castle College
Prof Francesco Gentili	Swedish University of Agricultural Sciences
Dr Calle Niemi	Swedish University of Agricultural Sciences
Dr Alasdair Macleod	Lews Castle College, Stornoway
Jon MacLeod	An Lanntair
Prof Lisbeth Truelstrup Hansen	Arktisk Teknologi Center, Greenland

Apologies

Prof Rúnar Unnþórsson	University of Iceland
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Minute

	ITEM	Comment	Decision	Task	Who?	By date
1.	Approval of minute of 30 September 2020 – progress with Actions / matters arising	The minute was approved.	No matters arising.	Send to Angus for uploading to website	Andrew	As soon as possible
	Matters arising	ARTEK still working on sending samples -they have been successfully frozen but not yet dispatched.				

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	Provide Calle with as many samples as possible	Researchers at Gothenberg University have a very large programme on algae cultivation, and they have promised that they will send some samples.				
	Reminder: Clíodhna asks Partners to send information about any work, papers etc. for dissemination.	No new information sent.				
	Update on questionnaire-circulate to as many as possible in relevant areas	So far, questionnaires have been received from the Faroe Islands (1), UK (3), Iceland (1) and Ireland (20)				
2.	Progress with Period 1 Partner report	Andrew submitted the reports on 19 November, but Michela Gaifami responded to indicate that the LP signature template was that for the partner report instead of the PROJECT report. She also asked that we upload the fact sheet, pop up poster and power point template, as well as the translated versions of the factsheet. Further details about the agreed pilots were also necessary and should be uploaded in	The correct signed template has been uploaded and Clíodhna has provided the relevant fact sheets etc. However, these documents are too large to be loaded into the EMS because of its constraints on file size. The requested information has been sent by “we transfer” and the pilot project details have been discussed.	Awaiting response from Michela Gaifami.		

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		the Attachments, or the relevant parts of the meeting minutes highlighted.				
3.	Progress with Period 2 reports	Most have done work on these reports, but few are complete or signed off by the FLC.		Continue working on reports and submit when ready.	All Partners	As soon as possible.

	Item	Information
4.	Update on progress with work packages	<p>Lews Castle College Andrew Mackenzie: Work package Management. Continuing to chase up FLC and finance claims – and responding to queries from Partners and the NPA. Working on reports and liaising with colleagues at Lews Castle College.</p> <p>Roy Bartle Work package T1.2.1 Drying systems. Working with technicians at Lews Castle College to get the drying rig commissioned. Currently running validation and calibration experiments to ensure that the airflow velocity is uniform across all the drying racks so that there is no temperature variation within the oven. Over the last month we have been working on equipment and instrumentation, so we hope that in the next couple of weeks we will be able to start the initial experiments on seaweed. Paper submitted to the Journal of Phycology on the drying experiments, but no response received from the publisher yet.</p>
	Update on progress with work packages	<p>Swedish University of Agricultural Sciences Work package 2.6.1 Have sent and received analysis of amino acids (free and bound) and composition including 23 elements from the algae from TARI. Analysis of Alaria esculenta shows that it has around 3-4 mg of</p>

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		<p>cadmium per kg of dried weight, but, surprisingly, this is normal, having researched other literature. In Sweden for use in agriculture as a fertiliser the limit is 1 mg per kg!</p> <p>Calle has been testing several methods for analysing protein content and it is hoped that some samples will be received from Gothenberg. Carbohydrates have also been analysed for quality and quantity from samples received.</p> <p>There was discussion about the possibility of using fresh seaweed, frozen seaweed or fermented seaweed as an alternative to dry seaweed for food use. This may be a useful alternative where drying methods use environmentally friendly fuels as opposed to renewable sources.</p>
	Update on progress with work packages	<p>An Lanntair Work Package T2.6 Characterisation T2.2 Development of Brand identity</p> <p>Just uploaded a document which is some analysis of what is publicly available regarding branding, and marketing. Also looking at certifications and logos - there are currently 13 accredited logos, which are associated with seaweed products-including one DNA certification which is used by one of the brand leaders (Seaweed and Co) who are at the forefront of producing accredited products and developing ways of improving product and markets advantage. Suggest that a meeting be convened to discuss the branding strategy and where the SW-GROW brand is good to sit in relation to what is already available within the marketplace.</p> <p>ACTION: Andrew to arrange meeting with Lews Castle College, Clíodhna, Ronan and Jon for Wednesday 2, December 2020 at 2 PM GMT</p> <p>ACTION: Jon to send a link to all Partners to Seaweed and Co website</p>
	Update on progress with work packages	<p>Arktisk Teknologi Center, Greenland</p> <p>Work package T21.1</p> <p>Have a Ph.D. project associated with SW-GROW and a paper has just been submitted from her work which is an evaluation of the characterisation and chemical nature of 17 elements in 10 species of seaweed from Greenland. This has mapped out the potential for different seaweeds to be used in the food industry for human consumption. Currently working on nutritional characterisation of these seaweeds and using similar methods to be those used by SLU and have also sequenced the microbiology of the samples harvested in a pristine area to be compared with samples that were</p>

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		<p>sampled in more populated (and potentially more polluted areas where raw sewage may be present), in Greenland.</p> <p>Currently getting ready to sequence the microbiomes on the sugar kelp seaweed samples from Greenland.</p>
	Update on progress with work packages	<p>TARI</p> <p>Spent considerable time on reporting for Period 2, and this has recently been sent to the FLC. Been working on the piloting project and trying to resolve some issues but there has been no resolution so far. Have been in contact with various banks and other funding agencies, but this does not look promising, so a few more options will be explored. However, still hopeful that the pilot can be progressed.</p> <p>Work package 1</p> <p>Have been working on the results from the fjords that we have so far have also given the couple of presentations based on those data.</p> <p>Will give another talk to the same network as Clíodhna a month ago - data will be presented from the fjords where the farm is located. This will include information on seaweed growth, content of the algae, the nutrients of the water, and the bacterial content of the water.</p>
	Update on progress with work packages	<p>Údarás na Gaeltachta</p> <p>Work package T2 1.1 Shared infrastructure</p> <p>There are two locations that may be suitable for this pilot project - one near UDARAS and the other in County Mayo - currently determining the suitability of either site. In terms of having the shared infrastructure in place by the end of April 2021 it is feasible, but this will mean that the decision has been made on the preferred location within the next couple of weeks.</p> <p>Work package T4 Dissemination and engagement with stakeholders.</p> <p>Just, recently published a paper in a Regional paper and an online article in a national paper. There is an ambition to duplicate this work in all the NPA areas sometime next year.</p>
	Update on progress with work packages	<p>NUI Galway</p> <p>Work package T2.2</p> <p>Samples have been sent for sequencing to China (22 samples of <i>Alaria esculenta</i> and 20 of <i>Palmaria palmata</i>) from Ireland and the Faroe Islands. In addition, to analyse the full genome, a sample of <i>Alaria esculenta</i> was sent to China and a sample of <i>Palmaria palmata</i> to Germany.</p>

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		<p>Work package T4 Dissemination and engagement with stakeholders</p> <p>A paper on sea lettuce is in pre-print and deals with the mis-identification of the product (estimation that 70% of the sequences or false).</p> <p>Action-Ronan to send link for the preprint to all partners.</p> <p>Ronan is talking at a conference on 30 December 2020 on the mis-identification of sea lettuce and its variable quality-carbohydrates, proteins, etc.</p>
	Update on progress with work packages	<p>University of Iceland</p> <p>Been working on the development of the seaweed drying cabinet. Have made changes based on feedback received last month and implemented into the design an energy saving solution that reuses the hot air. This design was sent to Roy who gave nice comments on how the design could potentially improve further. Currently exploring those ideas.</p>
5.	Update on questionnaire to SMEs	Already covered-see above.
6.	Progress with pilot projects to be delivered.	Already covered-see above.
7.	E-mail from Michela Gaifami re ineligible expenditure	This was noted.

Next meeting: (Try) Teams Wednesday 23 December 2020