



BRIDGE-BS

Blue Growth Incubators | Service Dynamics | Empowered Citizens

BRIDGE-BS SUMMER SCHOOL
23-25 August 2022
Istanbul University in Istanbul, Turkey



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000240

Concept Note

The preservation of the Black Sea is vital to the prosperity of its coastal communities due to the unique habitats, abundant resources, and rich cultural heritage it offers. Furthermore, **ecosystem preservation - through green innovation and circular models** - is becoming an imperative to foster sustainable economic development and new business models for the industry and other socio-economic actors in the seabasin.

The Black Sea is in fact a distinctive semi-enclosed basin with 10 large rivers flowing into a highly coupled coastal-deep-sea system introducing anthropogenically generated nutrients and pollutants nourishing the largest anoxic-sulfidic water body on the Earth. The Black Sea ecosystem is worryingly damaged by persisting negative consequences due to **human-induced activities (stressors)** and challenges due to climate change. Such negative patterns are increasingly threatening the Black Sea fragile ecosystem and, as a consequence, are posing serious challenges to socio-economic future activities in the region. Amongst such stressors are eutrophication and hypoxia, overfishing, litter and pollution by industrial and human activities, introduction of alien species.

Understanding and addressing such multi-stressors, including through the promotion of transformative innovation across the various Blue Economy activities in the region, is therefore a central challenge to be tackled by BRIDGE-BS. In this respect, the EC H2020 [BRIDGE-BS](#) R&I project aims to **develop the predictive tools and capabilities** necessary to understand and address the impacts of climate-driven and anthropogenic multi-stressors on the services stemming from Black Sea ecosystems. These services and their responses to stressors will be mapped, monitored, and modeled to identify a safe operating space within which a sustainable blue economy can flourish. Transformative sustainable technologies will also be discussed and fostered in their uptake across operators and socio-economic actors.

Moreover, a range of educational and capacity building activities are supported by BRIDGE-BS. Amongst those, a summer school will be organised by the BRIDGE-BS project by targeting graduate students from Black Sea riparian countries in the **last week of August 2022 (for a total of 4 days, including the arrival day)** and will be hosted by one of the facilities of the Istanbul University (IU).

The **courses provided during the summer school** will cover the main aspects related to the Black Sea ecosystem and the challenges and opportunities faced by prominent economic activities for a sustainable Blue Economy in the Black Sea: i) management of marine living resources (fisheries and aquaculture), ii) green ports and sustainable transport, iii) coastal and maritime tourism, iv) renewable marine energies, v) blue-biotech. A scientific coordinator from the host country (IU, Turkey) will guide the school's activities and syllabus preparation.

Full accommodation, travel and catering expenses of the summer school participants will be covered by Istanbul University

Objectives

- **Equip** graduate students with theoretical and practical skills to address issues faced by a sustainable Blue Economy in the Black Sea with specific focus on



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regional policy initiatives - including the Common Maritime Agenda (CMA) for the Black Sea, and the Strategic Research and Innovation Agenda (SRIA.) - as well as key regional actors - such as the Black Sea Commission (BSC) and the Organisation for Black Sea Economic Cooperation (BSEC).

- **Diversify** possible career pathways for next generations of practitioners in the sectors, towards new emerging sectors, skill-sets and competencies which are required to foster a transformational Blue Economy in the region.
- **Widen** next generation's comprehension and appreciation of fundamental marine ecosystem functioning, challenges and opportunities for its preservation, so as to train future leaders for a sustainable Blue Economy.
- **Learn** about opportunities in sustainable innovation and policy support across relevant marine and maritime sectors in the Black Sea as well as other EU sea basins, and understand the policy context in which to grow as a professional.
- **Foster** professional and educational networks and international partnerships that can improve activities in support of sustainable blue growth, and become part of the broader community of innovation professionals across the region.
- **Stimulate** actions for preservation and sustainable exploitation of the Black Sea marine and coastal ecosystems, and make students understand how green innovation can help a successful and fulfilling career pathway in the region.
- **Improve** the matchmaking of regional businesses/organisations and young professionals equipped with innovative skill-sets for innovating the Blue Economy and ocean governance, towards achieving the UNSustainable Development Goals in the Black Sea.



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Date and Venue

23-24-25 August 2022 at Istanbul University [Rectorate](#) in Istanbul, Turkey

22.08.2022 - Arrival

23.08.2022 (1. Day)

- 09:00 - 09:30 **Opening Remarks**
Tour de Table, Ice-breaker
- 09:30 – 10:00 **Welcome Speech and Introduction of BRIDGE-BS Project**
Prof. Cem Gazioğlu, [Istanbul University](#)
Prof. Baris Salihoglu and Assoc. Prof. Mustafa Yucel METU-IMS & Coordinators of the [BRIDGE-BS Project](#)
- 10:00 – 10:45 **Introduction to Oceanography**
Prof. Dr. Baris Salihoglu from [METU-IMS](#), Turkey
- 10:45 – 11:00 **Coffee Break**
- 11:00 - 11:45 **Resilience of Ecosystems**
Dr. Susa Niiranen from [Stockholm University Resilience Center](#)
- 11:45 - 12:30 **Blue Economy and Policy Framework in the Black Sea**
Frederick Herpers, & Matteo Bocci, [SML](#)
- 12:30 - 13:30 **Lunch**
- 13:30 - 17:00 **Marine Living Resources: Fisheries and Aquaculture**
Overview on trends, challenges, opportunities (30 min)
Exchange with the students and Q&A (30 min)
Case study with International Practitioners (45 min)
Gizem Akkus, PhD student at METU IMS
Dr. Ayaka AMAHA ÖZTÜRK, [Turkish Marine Research Foundation](#)
15:15 – 15:30 **Coffee Break**
Exercise/Group work (45 min) and presentation of the group work (30 min)
Wrap up and summary - Frederick Herpers, & Matteo Bocci

24.08.2022 (2. Day)

- 09:00 – 09:15 **Opening Remarks and Summary of Day 1**
- 09:15 - 09:30 **Introduction of the Virtual Blue Career Center**
Yana Popova from Marine Cluster Bulgaria
- 09:30 - 12:30 **Black Sea Renewable Energy**
Overview on trends, challenges, opportunities (30 min)
Exchange with the students and Q&A (30 min)
Case study with International Practitioners (45 min)



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Arthur SERMENT, [Pole Mer Méditerranée](#)

Murat DURAK, [DURED](#) (Offshore Wind Energy Association)

11:15 – 11:30 **Coffee Break**

Exercise/Group work (45 min) and presentation of the group work (30 min)

12:30 - 13:30 **Lunch**

13:30 - 17:00 **Blue Biotechnology**

Overview on trends, challenges, opportunities (30 min)

Exchange with the students and Q&A (30 min)

Case study with International Practitioners (45 min)

Dr. George Triantaphyllidis, [Hellenic Centre for Marine Research](#)

Prof. Murat Telli, [Beta ALG Biotechnology](#)

15:15 – 15:30 **Coffee Break**

Exercise/Group work (45 min) and presentation of the group work (30 min)

Wrap up and summary - Frederick Herpers, & Matteo Bocci

25.08.2022 (3. Day)

09:00 - 09:05 **Opening Remarks and Summary of Day 2**

09:05 - 09:45 **Deep Ecosystem of the Black Sea and Sustainable Blue Economy**

Assoc. Prof. Mustafa Yucel, METU IMS

09:45 - 12:45 **Coastal and Maritime Tourism**

Overview on trends, challenges, opportunities (30 min)

Exchange with the students and Q&A (30 min)

Case study with International Practitioners (45 min)

Mamuka Berdzenishvili, [Tourism 4.0](#)

Almila Kindan Cebbari [\(Foundation for Environmental Education in Turkey\)](#)

11:15 – 11:30 **Coffee Break**

Exercise/Group work (45 min) and presentation of the group work (30 min)

12:45 - 13:45 **Lunch**

13:45 - 17:15 **Maritime Transport**

Overview on trends, challenges, opportunities (30 min)

Exchange with the students and Q&A (15 min)

Case study with International Practitioners (45 min)

Anna Natova

Capt. Adrian Evtimov from Marine Cluster Bulgaria

15:30 – 15:45 **Coffee Break**

Exercise/Group work (45 min) and presentation of the group work (30 min)

Wrap up and summary Frederick Herpers, & Matteo Bocci

17:15-17:30 **Closing Remarks, Feedback from the Students and Farewell Activity**

Mustafa Yücel & Barış Salihoglu



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Main Lecturers:

On the first day, a general introduction will be made by various experts. The Summer School will be facilitated by Frederick Herpers and Matteo Bocci. Under each sector, specific case studies will also be presented with relevant International Practitioners.



Frederick Herpers: Frédéric is an engineer in hydrography and oceanography with 13 years of experience in geophysics for civilian and military purposes (e.g., at France’s hydrographic office (SHOM) and the Ministry of Defence’s procurement agency). He is experienced in the design and implementation of integrated maritime and coastal policies at EU, national, regional and local level. In a previous position as an Integrated Maritime Policy (IMP) advisor for the French Prime Minister at the General Secretariat for the Sea (SG Mer), he

contributed to the development of French maritime policy, notably serving as project manager on maritime issues for France’s ‘Grenelle de la Mer’ in 2009 where he was primarily tasked with inter-ministerial coordination.

As a consultant since 2014 at Stratégies Mer et Littoral (SML), he has been involved in several projects related to Blue Economy in the Atlantic, the Mediterranean and the Black Sea mobilizing his skills and experience in legal and technical matters to develop and implement endorsed maritime strategies and to engage stakeholders in a sustainable blue economy. He has been the national hub for France since 2018 for WestMed and since 2020 for the Atlantic Action Plan. Since 2018, he has been working in the Black Sea with the Black Sea Blue Growth facility which contributed on setting the Common Maritime Agenda and the team leader of the Black Sea Assistance Mechanism (BSAM).

Matteo Bocci: Matteo holds a Master’s degree in Public Affairs and Administration (MPA) from the London School of Economics (LSE) and Sciences Po Paris and has over 20 years of professional experience. Matteo has worked on Blue Economy topics since the development of the Blue Growth Study for the European Commission’s DG MARE in 2012 and has worked on several research and capacity-building assignments in Blue Economy, across various EU sea-basins including the Black Sea. His principal areas of expertise include blue innovation, research, cluster analysis, tourism and renewable energy, as well as governance and support to Integrated Maritime Policy (IMP). He has served as Deputy Leader for the West Med Initiative promoted by the EU Commission (DG GROW/NEAR) and as Blue Economy Expert for a DG NEAR project on Blue Economy in ENI South Countries. He has also been a member of several core teams responsible for strategic studies, evaluations and impact assessment for the EU Institutions (Commission, Parliament) in a variety of policy fields. Matteo was involved in the previous contract for the definition of the Common Maritime Agenda.



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Keynote Speakers and International Practitioners

Prof. Baris Salihoglu (PhD 2005 Physical Oceanography, Centre for Coastal Physical Oceanography, Old Dominion University, VA, USA) is the coordinator of BRIDGE-BS. He is Director of the METU Institute of Marine Sciences (METU-IMS), coordinator of H2020 Black Sea CONNECT CSA, 3.4 M € DEKOSIM project establishing a new interdisciplinary centre of excellence (Centre for Marine Ecosystem and Climate Research) funded by the Turkish Ministry of Development and also Blue Growth Center in Mersin, Turkey. As far as coordinatorship, he is partner in 5 EU funded projects. His research interests cover a variety of topics, which range from mathematical modeling of marine ecosystems to descriptive physical oceanography. His main research focus is on exploring marine ecosystem and biogeochemical dynamics via the combination of modeling and data analyses. He works on development of biogeochemical cycle models in North Atlantic, Mediterranean and the Black Seas. He published over 50 articles. He was one of the leading proponents of the preparation of the Black Sea SRIA within the framework of the Blue Growth Initiative for Research and Innovation in the Black Sea and now he is coordinator of 2 €M H2020 CSA - Black Sea CONNECT which aims to carry out the development of the Black Sea Strategic Research and Innovation Agenda and implementation plan both at national and regional level. He is also the coordinator of BRIDGE-BS RIA which aims to develop predictive tools and capabilities necessary to understand and predict the impacts of climate-driven and anthropogenic multi-stressors on the services stemming from Black Sea ecosystems and build up an ecosystem-based management framework to enable policy uptake and foster citizen engagement affecting the Black Sea.



Assoc. Prof. Dr. Mustafa Yucel (PhD 2010, University of Delaware, USA) is the co-coordinator of BRIDGE-BS. He is a marine biogeochemist focusing on elemental cycling in oceans, particularly focusing on the deep-sea. Having been trained in USA as a chemical oceanographer, he has conducted postdoctoral research in France (UPMC) and Germany (GEOMAR). Since April 2015, he has been appointed as a faculty member in METU Institute of Marine Sciences in Turkey and currently is the Vice Director of the institute responsible with research coordination and international collaborations. Dr. Yucel has published over 40 international publications and spent a total of 13 months in deep-sea expeditions across the globe, participating in 5 dives to ocean floor with research submersibles Alvin (USA) and Nautile (France). Dr. Yucel has earned 4 Young Investigator Awards. Turkish Academy of Sciences - Distinguished Young Scientist Award (TUBA 2018) and Science Academy - Distinguished Young Scientist Award (BAGEP 2019) which were given for the first time to an oceanographer. Dr. Yucel is particularly interested in developing research and innovation approaches for emerging blue economy sectors in the Black Sea and the Mediterranean. Within last two years, he actively contributed to preparation of Black Sea Strategic Research and Innovation Agenda and now he is the



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co-coordinator of Black Sea CONNECT project which will support the Black Sea Blue Growth Initiative for Research and Innovation in the Black Sea. Dr Yucel is recently granted European Research Council's Consolidator's Grant for 2.4 Million EUR for his project DeepTrace: Tracing nanoparticle-fuelled co-mobilization of catalyst metals across Earth's deep-sea redox interfaces to pave the way for habitability detection in Ocean Worlds.

Dr. Susa Niiranen holds a PhD in marine ecology (SU, Sweden) and works as a researcher and Marine Research Theme co-lead at the SRC. Her research has a focus on how multiple environmental and anthropogenic drivers, including climate and fishing, affect marine ecosystem function and vulnerability. In particular, she studies food web interactions using different modelling approaches as a tool. She has participated in several international research projects (ECOSUPPORT, GreenMar, INSPIRE, BLUEWEBS) and is a member of the Inter-Sectoral Impact Model Intercomparison Project (ISI-MIP) and a MC-member of a related Cost Action PROCLIAS. She is a WP lead on Ecosystem Risks in H2020-project MissionAtlantic, a WG lead on socioeconomics and governance in EFICA-project working under EU Framework Contract for the provision of Scientific Support to the High Seas Fisheries in the Central Arctic Ocean (CAO) and a WP leader in a Belmont Forum project "Marine Arctic Resilience, Adaptations and transformations" (MARAT). She is also the WP Leader of Resilience for a healthy Black Sea Ecosystem under BRIDGE-BS.



She has published 25 peer-reviewed articles and has an h-index of 16 (google scholar).

Gizem Akkus is a Ph. D. candidate in Marine Biology and Fisheries Department in the METU, Institute of Marine Sciences and a Research Assistant at METU-IMS Oceanography Department since 2017. She holds a bachelor's degree in Biological Sciences at Middle East Technical University and her master's degree at the Marine Biology and Fisheries Department in the METU, Institute of Marine Sciences. She is also a Black Sea Young Ambassador.



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Dr. Ayaka Amaha Ozturk is one of the founders of TUDAV and she has been working as an advisor on marine biodiversity. After she received her Ph.D. at Tokyo University of Fisheries, Japan, she has been working at Faculty of Aquatic Sciences, Istanbul University. Her expertise is cetacean ecology and conservation, particularly in the Black Sea and the Turkish Straits System. She has been an active member of Scientific Committee of ACCOBAMS (Agreement for the Conservation of Cetaceans of the Black Sea, Mediterranean Sea and Contiguous Atlantic Area) since 2011.

Arthur Serment holds a master's degree in Maritime Management and a master's degree in Innovation Marketing, both issued by the University of Montpellier Management. Since graduating last year, he has been working at the Pôle Mer Méditerranée as a Floating Offshore Wind Task Officer, an experience which allows him to be involved in supporting the development of offshore wind industry, in both South and Occitanie regions. The Pôle Mer Méditerranée is a competitiveness cluster for the French maritime sector, bringing together more than 430 players in the sector on the Mediterranean coast. As such, the cluster supports private and public actors into the development of the offshore wind industry. In addition, the Pôle Mer Méditerranée is also the founder and co-organizer of FOWT, the world's largest event dedicated to floating wind energy.



Dr. Murat Durak started career life in 1996, joined with AK-EN A.S., where he coordinated several wind energy projects and government relations during the tenure.



After 4 years of employment he became member of international renewable energy project developer Umweltkontor Renewable Energy AG which has a company seat in Germany. He worked in several European countries that provided me international experience and scope. Between June 2004 – November 2008, he worked as a Senior Project Manager in GAMA Power System A.S. and developed wind power plant projects. Since November 2008, he has been working Managing Director of Enermet Enerji Meteoroloji AS. Founding partner of wind and solar engineering and consulting business. He was previously the chairman of Turkish Wind Energy Association (TWEA) and has numerous

articles, conference speeches and publications related to the industry. Currently he is chairman of Turkish Offshore Wind Energy Association. He graduated from Istanbul



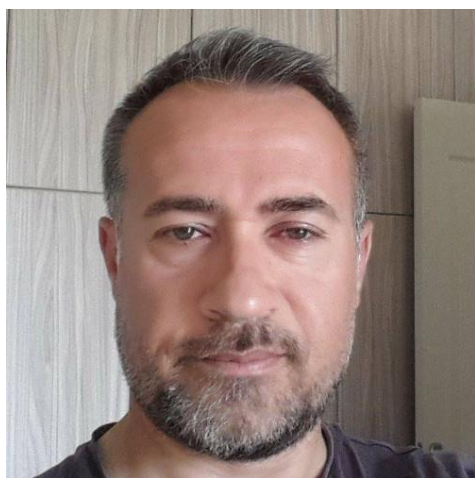
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Technical University (ITU) Meteorology Engineering (BSc). He completed MSc and PhD on wind energy in ITU. Dr. Murat Durak actively gives lectures about wind energy in Istanbul Technical University, Middle East Technical University and Atilim University.

Dr. George Triantaphyllidis is a Senior Expert at HCMR. He holds a PhD in Applied Hydrobiology from the University of Ghent (Belgium 1991-1995), after his BSc in Biology in the Aristotle University of Thessaloniki (1986-1990). He is an experienced senior level manager and strategic planner, with diverse diplomatic skills and significant experience in EU funded projects, with 22 years Professional experience of which more than 18 years' experience in the field of regional development, Blue Growth, fisheries and aquaculture. He participated in more than 60 EU funded and co-funded projects and consultancies among which in several projects and consultancies for DG Fish, DG Mare and EASME. He is currently the Project Manager of the H2020 CLAIM project and member of the Coordination Management Group, where HCMR is the Coordinator. He has published 23 peer-reviewed articles, 1 book chapter and 22 publications in refereed conference proceedings as well as numerous reports in European and National RTD projects and consultancies.



Dr. Murat Telli, is currently at the Biology Department at Bolu Abant İzzet Baysal University, Türkiye, where he has been a faculty member since 2010. His studies are committed to microalgal biotechnology, particularly in genomics, bioprocess and bioengineering to study molecular and physiological mechanisms of microalgal bioprocessing. He is also founder of a startup company (Beta ALG Biotechnology) where he is running R& D projects on microalgal biotechnology to develop innovative products within the concept of green technology for food and cosmetic sectors. He started his academic career at Institute of Marine Science METU as MSc student in 2000 after his BSc in Biology. Then he completed his PhD on evolutionary genetics about endemic freshwater fish populations in Biology department of METU in 2008. He has 15 peer-reviewed manuscripts from a diverse field of aquatic science and aquatic biotechnology, and a book chapter on anxiety-related epigenetic activity in foreign language pre-service teachers. That is a highly interesting collaborative research performed with the department of education science to reveal effects of epigenetic factors on human learning ability under stress conditions. He has completed 3 business and 5 academic projects as PI and researchers.



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Mamuka Berdzenishvili has been involved in a tourism industry since 2008. Initially, he spent 2 years on a position of a sales and customer service representative at Lufthansa airlines in Czech Republic. Upon his return in Georgia Mamuka got involved in a regional tourism development. He held numerous positions within the Department of Tourism and Resorts of Ajara Autonomous Republic (the government organization responsible for a tourism development). First, he led Marketing and Advertising Division of the department. Later, Mamuka moved to the head of tourism product and service division in the same department. Then, he got promoted as the first deputy chairman and from April 2015 to January 2017 he was occupying the position of the chairman. While working at the department of tourism Mamuka has implemented and initiated a number of projects and positive changes that were subsequently reflected on an overall performance of Ajara region as a tourism destination. Apart from that Mamuka is an invited lecturer of Caucasus University of Batumi and Batumi Shota Rustaveli State University. Mamuka Berdzenishvili holds Bachelor's Degree in Sociology from Tbilisi state university and master' Degree in Sociology from Masaryk University, Czech Republic



Almila Kından Cebbari received her undergraduate degree from METU Environmental Engineering Department in 2000 and master's degree from Ankara University Social Environmental Sciences in 2006. She started working as the project coordinator of education programs for sustainable development and sustainable tourism programs at the Turkish Environmental Education Foundation, when she completed undergraduate degree. Since 2008, as the National Coordinator of the Blue Flag Programme, she has been traveling the coasts of Turkey step by step, working to ensure the sustainability of the coasts and to develop the tourism sector and local governments in accordance with international criteria. During her business life, she saw exemplary works in more than 20 countries and represents our country in international meetings. Her and the foundation's works can be found in www.mavibayrak.org.tr website and @mavibayrakturkiye social media accounts, Turkish Environmental Education Foundation-TÜRÇEV international environmental programme details in www.turcev.org.tr website and @turkiyeecevregegitimvakfi social media account.



Anna Natova got her master's degree in 1995 from Sofia University St. Kliment Ohridski, Law Faculty. In 2005 she did research at the University of Virginia, Center For Oceans Law and Policy on the following topic “The relationship between United Nations Convention on the Law of the Sea and IMO Conventions” as a Fellow of the United Nations – Nippon Foundation of Japan Fellowship programme. She has extensive experience as a legal advisor at the Ministry of Foreign Affairs and she has been actively involved in the procurement of EU projects since 2009 – the year she joined the Maritime Administration of Bulgaria. She became part of the team of Bulgarian Ports Infrastructure Company (BPI Co.) in 2015 as a Project Management Director and as of 1 February 2022 till 27 June 2022 she was appointed as Director General of the BPI Co.



Organization Program

	22 August	23 August	24 August	25 August	26 August
07:30-08:30	Arrivals (airport transfers are Self-Paid)	Breakfast (Paid)	Breakfast (Paid)	Breakfast (Paid)	Breakfast (Paid)
08:30-09:00		Meeting at the lobby (08:15) and departing for the Venue (Paid)	Meeting at the lobby (08:30) and departing for the Venue (Paid)	Meeting at the lobby (08:30) and departing for the Venue (Paid)	
09:00-12:30		1st day of SS	2nd day of SS	3rd day of SS	Check-out (until 12:00)
12:30-13:30		Lunch (Paid)	Lunch (Paid)	Lunch (Paid)	Departures (airport transfers are Self-Paid)
13:30-17:00		1st day of SS	2nd day of SS	3rd day of SS	
17:00-19:00	Ice-breaker meeting (https://www.lotipoints.com) (Self-Paid)	Tour with a Guide (Paid)	Dinner & Free time (Self-Paid)	Dinner & Free time (Paid) http://www.capari.com.tr/	
19:30-21:30		Dinner (Self-Paid) Varuna Gezgin Cafe - İstanbul			

Please note that in the above agenda, self-paid means that Summer School attendees will be expected to cover their expenses for these items. “Paid” means items that will be covered by the organization.

