



Joint call on Sargassum

April 3rd, 2019
Webinar

Why



Aims

- ▶ Jointly mobilize research teams and companies working on the issue;
- ▶ Create synergies among Caribbean countries and continental ones ;
- ▶ Improve the understanding of the phenomenon;
- ▶ Design pragmatic and operational tools and solutions.

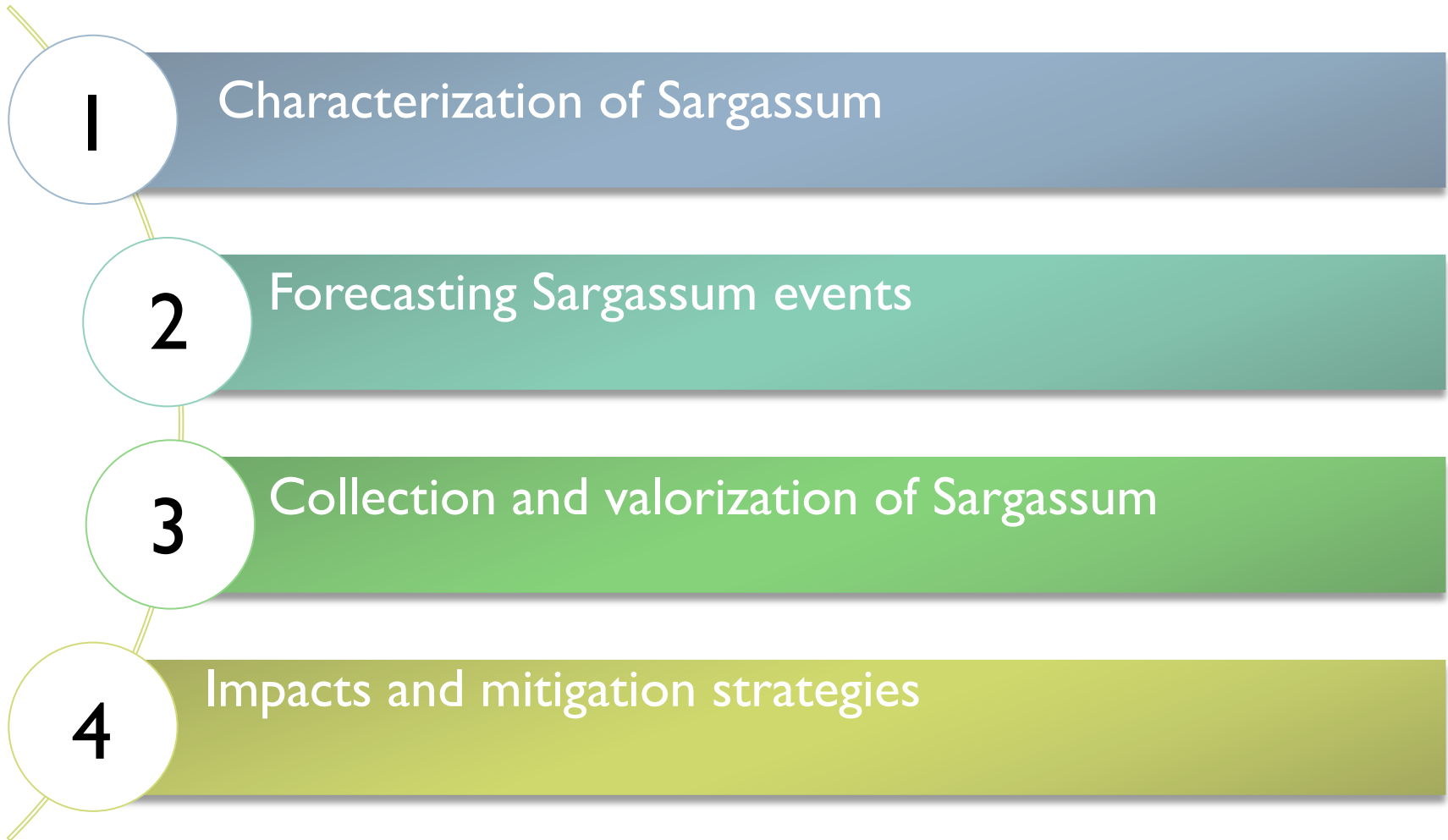


Built a Caribbean network of international experts on Sargassum

Main expected results

- ▶ Increase our knowledge of bloom events;
- ▶ Explain their origin and causes;
- ▶ Provide insight into effective techniques for dealing with them over different time scales;
- ▶ Propose short and long term mitigation strategies to reduce sargassum events impacts.

4 interrelated themes



Characterization of Sargassum

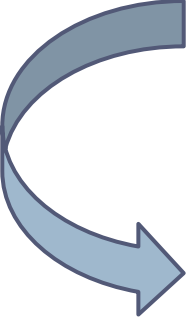
Identify the different species and determining their origin, behavioural traits, reproductive and demographic patterns and the associated ecological interactions

- ▶ Modelling growth rate and population dynamics in relation to relevant biotic and abiotic factors;
- ▶ Identification of blooming factors together with the associated chemical input;


- Propose or develop ecological patterns that could predictively link volume of influxes with key and easy to evaluate indicators;
- Results will feed works on theme 2, 3 and 4

Forecasting Sargassum events

Examine the accumulation of sargassum banks, their trajectory in the open seas and options for the development of operational alert systems for algae stranding and their likely site effects

- 
- ▶ Improving the reliability and precision of existing sargassum forecast tools;
 - ▶ Exploration of new sources of images, extension of database, ground truthing investigations;
 - ▶ Examination of possible influences of climate change and the impact on hydrodynamics and wind conditions on the banking and drift of algae blooms (consider existing projects).

Caribcoast

- 
- Provide accurate information on expected quantity, location and time of sargassum stranding and possible site effects;
 - be supported by reliability indexes and indicators in order to express the reliability of the system,
 - effective, ready to use open sourced web-based tools;
 - Results will feed works on theme 3 and 4

Collection and valorisation (1/2)

Propose innovative low-cost methods and technologies for protecting the beaches from massive inputs of algae by collect them at sea close to the shore, from coastal sediment as well as from beaches;

Google drive

- ▶ review the latest experiments and capitalize on developing ideas;
- ▶ Provide technical drawings along with data on methods and technologies and simulations;
- ▶ assess the practicability of cost-cutting measures (pre-treatment) such as drying, compaction.

Industrial research
Experimental
development

- Full process approach (collection, evacuation and transportation) ;
- methods are cost effective, efficient and comply with current environmental and health and safety regulations
- proposals should balance the costs of collection with the revenues of valorization

Collection and valorisation (2/2)

Explore ways of valorisation sargassum, including its use in energy production, agriculture (excluding direct spreading), the development of biomaterials and the extraction of high-value bioactive molecules (including phyto-pharmaceutical) ...

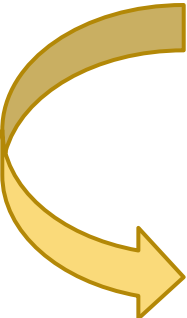

- ▶ Take into account stranding irregularity;
- ▶ Take into account results from theme I (contamination);
- ▶ Territorial feasibility studies to ease technology transfers.


Fundamental and applied research

- Solutions adapted to location conditions, with valuable business model;
- Consortium with private partners are highly welcomed;
- Range of solutions to be used depending on the volume of influxes and the expected stranding sites

Impacts and mitigation strategies (1/2)

Precise the impacts of Sargassum and define solutions and coping strategies that can mitigate adverse effects.

- 
- 
- ▶ Human healthcare : diseases, kinetic of sargassum degradation and gas released, epidemiologic issues
 - ▶ Environmental health : coral reef, wetlands, mangrove, seagrass bed, turtles and fishing species, emblematic species;
 - Socio-economic : tourism, fisheries, workforce illnesses, insurance industry.

- 
- Sensor strategies and warning thresholds;
 - Impacts might be positive or negative

Impacts and mitigation strategies (2/2)

Precise the impacts of Sargassum and define solutions and coping strategies that can mitigate adverse effects.

- ▶ Tools and methods in a territory planning perspective, based on results of theme 2 and 3;
- ▶ Understanding stakeholders engagement, from decision makers to other kinds of stakeholders;
- ▶ Mobilizing stakeholders knowhow, resources;
- ▶ Identification of regulations, policies to be adapted or...
- ▶ Levels of actions to address in order to be efficient, from local to international

Humanities

- Strategies of mitigation, involving stakeholders, taking into account previous crisis actions plan;
- Real concrete tools .

Project requirement (1 / 2)

- ▶ 3 years projects;
- ▶ Consortium of research teams and private partners;
- ▶ Priority to transnational projects will be given, means collaboration with Caribbean territories and mainland France, Brazil and others countries (USA, Mexico, ...) is highly recommended.
- ▶ Theme 1, 2 and 4 :
 - ▶ at least one French overseas territory (Guadeloupe, Martinique or French Guyana),
 - ▶ 2 different territories
 - ▶ 2 different countries,
 - ▶ Co-applicants from the same laboratory, research unit or university cannot be considered as different partners, even if they are located in different territories
- ▶ Theme 3 :
 - ▶ at least one Caribbean French overseas territory,
 - ▶ 2 different territories
 - ▶ Co-applicants from the same laboratory, research unit or university cannot be considered as different partners, even if they are located in different territories.

Projects requirement (2/2)

- ▶ The research or development and innovation carried out must involve novel, ambitious or original ideas (even in the case of adaptation) to address the topic(s) selected with a well explained and clear impact in terms of the implementation of a sustainable and pragmatic solution;
- ▶ Proposals must have well-identified collaboration vectors demonstrating clearly the added value of trans-national and trans-regional collaboration. Parallel-run local/national projects with little interaction will not be accepted;
- ▶ Each consortium submitting a proposal shall specify the selected topic(s);
- ▶ Every project consortium has to appoint a project coordinator who is the main responsible contact person of the project consortium.

Evaluation criteria

Scientific evaluation process and follow up managed by ANR

1. **Scientific excellence:**
 - ▶ Fit to the scope of the call;
 - ▶ Scientific excellence aspects, including transnational added value;
2. **Quality and efficiency of the implementation** (management structure&procedures/competence&expertise of the consortium/level of integration&collaboration/data management and data sharing/...)
3. **Expected impact and stakeholders engagement**

Theme 3 : efficiency of technical solutions

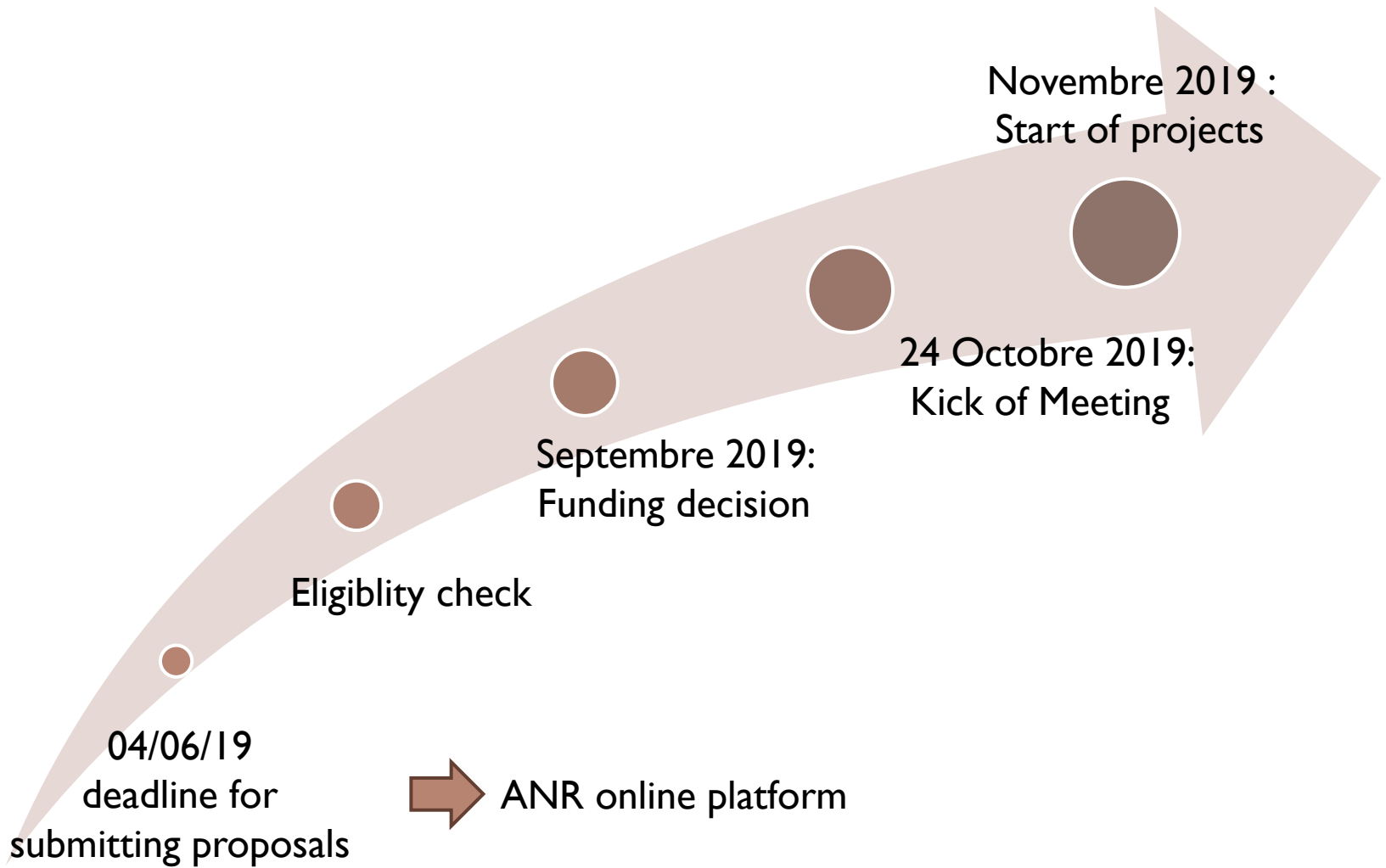
- ▶ Environmental impacts;
- ▶ Business models;
- ▶ Alternative use in case of no sargassum;
- ▶ Working conditions;
- ▶ Volume of sargassum collected;
- ▶ ...

Funders

	Theme 1	Theme 2	Theme 3	Theme 4	Total amount
Guadeloupe (ERDF)		Close to the shore			5 000 k€
ANR			TRL≤5		2 000 k€
AllEnvi					2 000 k€
Ademe			TRL≥6		1 000 k€
French Guyana		TBC			200k€
Martinique					A préciser
FAPESP					65k€/project, Up to 6 or 8 projects
FACEPE					40k€/project, 2 projects

Each partner will be funded by its own national/local funding organisation

Calendar





Région Guadeloupe : vanessa.weck@cr-guadeloupe.fr

Collectivité territoriale de Guyane : marc.sagne@ctguyane.fr

Collectivité territoriale de Martinique :
morghan.govindoorazoo@collectivitemartinique.mq

Ademe : Charlotte.gully@ademe.fr

Clio.maridakis@ademe.fr

Thanks for your attention

<https://anr.fr/fr/appels/detail/call/appel-a-projets-conjoint-recherche-developpement-et-innovation-sargasses/>

sargasse@agencerecherche.fr