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TITLE

Use of institutional logics in business models of new hybrids for sustaining stakeholders' engagement: a case in renewable energy.

ABSTRACT

In a context of new academic-industrial collaborative research organizations, this case study explores the use institutional logics in developing a portfolio business model able to keep stakeholders' engagement. The co-existence of dual dominant logics in developing the business model associated with knowledge value creation has two consequences. It allows maintaining stakeholders' engagement, whereas the hybrid organization combining the academic and commercial logics will loose actors' motivation. It also facilitates actors' engagement in a new logic and the development of the two other business models aimed at creating societal and economic value. This research contributes to understanding how the strategic use of logics can help new hybrids developing and sustaining. It also offers a relative new lens of analysis in the institutional literature: the business modeling.

KEY WORDS:

Hybrid Organizations, Institutional Logics, Institutional Complexity, Business Models.

INTRODUCTION

Organizations have come to realize that joining resources can be a successful strategy for addressing societal and environmental issues (Haigh & Hoffman, 2012). While different definitions of hybrid organizations are being proposed, all of them recognize that hybrid organizations respond to the inability of one of the partners to solve an important problem (Borys & Jemison, 1989), such environmental issues, by enhancing collaborative R&D efforts in sustainable energies. However, new hybrids organization in this sector cannot rely on existing models, in how creating value for multiple stakeholders and R&D activities take time deliver values and convince stakeholders to maintain their engagement! This research analyzes how new hybrids in this field, used differently and progressively, institutional logics in their business modeling. This case is of particular interest, as they were based on the same state bid offer, but developed differently: one stopped and the other experienced a crisis but managed to overcome it.

CONCEPTUAL BACKGROUND

Hybrid organizations the interface between for-profit and nonprofit sectors, have a potential advantage to merge together distinctive capabilities and different resources. They fast developed, as they can address social and ecological issues (Haigh & Hoffman, 2014)). But, in order to do that, they also have to face the complex problems of institutional complexity that occur when parties from different organizational fields, characterized by different logics collaborate. Literature refer to institutional complexity when organizations "confront incompatible prescriptions from multiple institutional logics" (Greenwood, Raynard, Kodeih, Micelotta, & Lounsbury, 2011).

By adopting structures and practices regarded as legitimate by wider audiences, organizations received social approval and access to critical resources (Raynard & Greenwood, 2014). By adopting structures and practices from multiple logics, hybrid

organization span social categories and take the risk of confusing their audience and suffer legitimacy discount (Rao, Monin, & Durand, 2005). At the intra-organizational level, the convergence of multiple logics makes organizations vulnerable to incoherence because advocates of different logics compete to impose their normative beliefs and interest (Battilana & Lee, 2014). Hybrids can also face multiple internal challenges, in terms of member identification (Glynn, 2000), internal conflicts (Ashforth & Reingen, 2014) and cognitive tensions (Foreman & Whetten, 2002). New hybrids face also the challenge of maintaining hybridity, as they develop. Intra-organizational power struggles or shifts in the influence and engagement can influence balance commercial and societal elements, phenomenon referred to as "mission drift" (Ebrahim, Battilana, & Mair, 2014; Santos, Pache, & Birkholz, 2015).

Despite those challenges, hybrids may be able to benefit from untapped resources. They may for example broaden their potential resource by including minority logics appealing to new audience (Durand & Jourdan, 2012). They may antagonist assets into opportunities (Hockerts, 2015). Hybrids heterogeneity can also offers opportunities for innovation (Dalpiaz, Rindova, & Ravasi, 2016) (Jay, 2013). Such cases prove that organizations can mitigate risks associated with institutional complexity and leverage from institutional plurality (Kraatz & Block, 2008, 2017).

Different organizational strategies have been suggested, in order to cope with institutional pressures (Oliver, 1991). As hybrids must response to expectations from multiple institutional spheres, strategies consider specific dimensions, such tensions related to multiple logics on goals or means (Pache & Santos, 2010). The relative level of compatibility and centrality between logics can also influence which strategy to adopt (Besharov & Smith, 2013) (p.365).

The analysis of new bank formation, highlights how a commercial and community logics both influenced the process of establishing a bank (Almandoz, 2012). This research invites investigations into how and under what conditions different logics can assist or hinder new hybrids performance and outcome.

Business model can be used as a pivotal level and unit of analysis in our understanding of value creation and capture (Zott & Amit, 2013). A portfolio of

business models can be defined as "the range of different ways a firm delivers value to its customers to ensure both its medium term viability and future development" (Sabatier, Mangematin, & Rousselle, 2010). A business modeling process approach suggests that learning, signaling, convincing through business modeling process facilitate legitimation process (Bojovic, Genet, & Sabatier, 2017), which can be very relevant in the case of new hybrid formation. Literature indicates that hybrid organization foster heterogeneous and innovative BM (Ocasio & Radoynovska, 2016), and interesting and effective business model innovations (Santos et al., 2015). But they say little about how this is done and with which influence of stakeholders' engagement in new hybrids.

This introduces my research question:
How can the use of institutional logics in developing the business model of new hybrids, influence the level of multiple stakeholders' engagement?

EMPIRICAL SETTING AND METHOD

The institutional field of French collaborative R&D includes various types of private/public, public/public or private/private partnerships. Three institutional logics characterize this field: professional, commercial and state logics.

----------INSERT TABLE 1 ABOUT HERE----------

A large initiative (PIA[1]) is launched by the French state in 2011, in order to fund up to 50% of new independent legal entities. Our research focuses on four of the thirteen REI[2], created as a result from the PIA. The four organizations analyzed were all based on the same PIA bid-offer conditions and they were all created legally in 2013. For confidential reasons, we call them Solar Energy, Industrial Efficiency, City Efficiency and Ocean Energy. Governance structures must enable a balance between industrials, SME and academics actors, for jointly co-design and co-run the REI in order to create

[1] PIA: Plan d'Investissement d'Avenir (Future Investment Plan)
[2] Renewable Energy Institutes (Instituts de Transition Energétique)

multiple types of values. For simplification purpose, we call E, the economic value; K, the knowledge value creation and S, the societal value proposition. Given this requirement, we use a business model lens for analyzing how organizations map resource to value creation and how they use them logics as strategic resources.

The four REI have different TRL [3] levels, which can influence their business modeling.

An overview of the four REI can be found in the table below:

----------INSERT TABLE 2 ABOUT HERE----------

We adopt a case study method (Yin, 2014), in order to compare patterns and distinct elements explaining our research question. This research is based on primary data (30 semi-structured interviews, all transcribed and coded, annual reports, meeting notes, state reports…) and secondary data (third-party analysis).

FINDINGS

1. First findings: first BM (K) design using dual logics co-existence or combination influence the level of stakeholders' engagement:

- Dual logics' related to multiple goals influence stakeholders collective engagement, whether they collectively selected and co-exist or whether they were not collectively decided and are combined:

"There is also one point that is very important, and which varies according to the type of hybrid organization, is the way the projects are built. At Solar Energy, projects were, were co-built between industry and the academic world has allowed a whole range of graduations in the positioning of projects between things that are fairly applied and then things that remain very upstream, which are exploratory, with TRL

[3] TRL: Technological Readiness Level

both very low and then intermediate TRLs. It offers a portfolio of projects with a large variety of technologies." (Solar Energy academic partner MA)

Other quotes below:

----------INSERT TABLE 3 ABOUT HERE----------

- Dual logics' related to multiple means influence stakeholders collective engagement, whether they co-exist or whether they are combined:

➢ Taking into account the need to respect the multiple norms and practices into account:

"On one of the projects, the project manager is currently an industrialist but we are changing this currently into the hands of an academic. Why? Well, it turns out, this is finally a rather exploratory subject, where we will need more time, science, understanding of the mechanisms applied and therefore, we are changing the project manager; there is no standardized process on who shall rather be project manager, it depends on competences and need." (Solar Energy project coordinator)

Other quotes below:

----------INSERT TABLE 4 ABOUT HERE----------

➢ Leveraging from the differences in norms and practices and facilitate co-existence:

"The management of the collaborative institute must give the structure, the rules of the game but inside it must leave room ... inside, let the academic and industrial partners collaboratively decide which methods to prefer according to the subjects ... Otherwise, everyone does not meet their interests and the institute finally becomes a threat when at the base, we had worked to make it an opportunity. " (Energy Efficiency academic partner)

Other quotes below:

----------INSERT TABLE 5 ABOUT HERE----------

➢ Collective work practices, including level of shared learning and interdependency, influence on stakeholders' engagement:

"For this to work, it is necessary at the same time and at a balanced level of scientific-technological rules and industrial rules of finance, money and then there are research groups that work with each other, with shared means, shared technology platforms and finally live that together." (Industry Efficiency academic partner)

Other quotes below:

----------INSERT TABLE 6 ABOUT HERE----------

2. **Second findings:** influence of the first BM design on stakeholders' motivation to engage further developing the two other BM with an additional minority logic:

- Leveraging on design of the first BM with dual logics co-existence, facilitate stakeholders engagement in developing the other portfolio BM, including new logics goals and means, that may not be as dominant:

"The ground idea is that Solar Energy is able to perform collaborative research, and that I think it meets the needs of the state and our partners. Now, the commercial side of Solar Energy, is a project we launch this year. How, is it possible for mid-sized companies and other partners to use the Solar Energy platform, which is essential because according to our business plan, intellectual property contributes 8%, but I think it will never happen. Our business plan is not based on the value of research, but on the valuation of its platform, its building and its equipment" (...) We must also continue to develop objectives that are not necessarily linked to research programs. For example, developing partnerships in France, internationally, finding new resources, developing services, but also subsidies, being able to lobby the European Community, etc. " (Solar Energy management).

Other quotes below:

----------INSERT TABLE 7 ABOUT HERE----------

- Not being able to leverage from the first BM limits stakeholders' motivation to engage further in new portfolio BM development or force changes in BM goals and means, in order to maintain stakeholders left engaged:

"We had to do a training, which we did besides which was the professional training on the energy audit (...). We wanted to create a collective intelligence on training and it was very disappointing in many things. The academics did not know how to integrate Industrial Efficiency in their reflection (...). They were quickly withdrawn, they already had their work to do compared to the university and the Master. The industrialists who said "yes, we are very interested in being trained on energy efficiency" have finally been very behind the scenes too. They were posting this, but it was not a real priority". (Industrial Efficiency manager)

Other quotes below:

----------INSERT TABLE 8 ABOUT HERE----------

DISCUSSION AND CONCLUSION

As in the Drug Court case, whereby professionals used multiple logics pro-actively, logics resemble tools, creatively employed by actors to reach their goals of the value creation, they are most interested in (McPherson & Sauder, 2013). This research also suggests that use of logics is only supporting stakeholders' engagement when it is co-existing and not when it is combined. This is due to the fact, that the practices enabling logics co-existence increase collective learning, mutual understanding, which tends to decrease in practice incompatibility between logics. This study also suggests that, institutional logics can indeed represent strategic resources organizations can use to leverage their strategic choices (Durand, Szostak, Jourdan, & Thornton, 2013). However this is more complicated in the case of hybrid where the management and the governance includes managers embedded in multiple logics and with different norms and interests in using strategically the available logics.

Analyzing how new hybrid organizations develop portfolio management using logics, allows us to see the effect of a first business model strategic choice for the hybrid capacity to develop the two other business models associated with other goals and

means, using both the benefits associated with formalization and collaboration, (Ramus, Vaccaro, & Brusoni, 2016) through the business modeling. Such process also enhance stakeholders' engagement, as it fosters learning, signaling and convincing (Bojovic et al., 2017) among the multiple stakeholders. Adopting a more dynamic analysis of new hybrid organizing strategies also meet the call for further analysis on this perspective (Battilana, Besharov, & Mitzinneck, 2017).

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TABLE 1

Characteristics	Academic logic	Commercial Logic	State Logic
Economic system	Not-for profit funding	For profit funding	Public/not-for-profit funding
Organizational Identity	Science as profession	Science as business	Science as societal well-being
Basis for legitimacy	Scientific reputation & legitimacy	Succesful Innovation	Societal improvements
Authority structures	Craft-based authority Scientific autonomy	Accountability to business Leaders	Accountability to public authorities
Mission	Pursue scientific novelty	Use knowledge to develop new products	Use knowledge for societal missions (environment, training, employement)
Strategy	Attract research funding Long term creation of knowledge Publishing practices	Research undertaken only if change of profitable exploitation	Incentives to attract Industrial funding & Academic knowledge
Value Proposition	Increase scientific knowledge	Economic return from scientific research activities	Create educational training Improve Energy transition

Ideal Types adapted from Thornton (2002)

TABLE 2:

		Names of Collaborative Research Legal Entities *			
Date	**Description**	**Solar Energy**	**Industrial Efficiency**	**City Efficiency**	**Ocean Energy**
2013	Creation of legal entity	Private form	Public form	Private form	Public form
	Central French state labelized?	Yes	Yes (after 2nd attempt)	Yes	No
	Central French state funding?	Yes, through legal entity	Yes, through legal entity	Yes, through legal entity	Yes but by project, not through legal entity
	Business model (BM) portfolio plan	E + K + S **	K + S **	E + K + S **	E + K + S **
2013-2016	BM Implementation status	K first, S second	K only	K first, S second, E third	K and S simultaneously
		K, S progressively interconnected	S attempted, not succesful	K, S, E progressively interconnected	K and S progressively interconnected
2015	Central French state funding?	- Yes, ongoing - Funding through legal entity	- Yes, ongoing - Funding through legal entity	- Yes, ongoing - Funding through legal entity	- Yes, starts - Funding through distinct projects (not to the legal entity)
end 2016	BM objectives vs planned in 2013	E + K + S	K	E + K + S	E + K + S
		Unchanged in the goals	Changed in the goals (K only)	Unchanged in the goals	Unchanged in the goals
		Unchanged in the means	Changed in the means	Changed in the means	Changed in the means
2017	BM Implementation status	K & S operational E in development	Legal entities disolved	K & S operational E in development	K & S operational E in pre-development
		Interconnection between K, S, E		Interconnection between K, S, E	Interconnection between K, S, E

* Not realy names for confidentially purposes

*** E: Economic Value proposition for the legal entity*

*** K: Knowledge Value Proposition for the legal entity and shareholders*

*** S: Societal Value Proposition for Stakeholders and society*

TABLE 3:

- “In these hybrid organizations, the collaborative work goes pretty well provided that the project was actually co-built with us academically (…) At Solar Energy, it's relatively Well, a Solar Energy project manager is not going to say to a university professor, "Well, that's what we have to do now, and here is how..." It does not work that way, they'll talk... " (Solar Energy academic partner MA)

- "I consider that Solar Energy is a facilitator of construction of collective projects between the industrialists of the sector and the academic researchers. This organization is in no way prescribing it as a structure (...) The management is more manager of this structure, more than the prescriber, in the negotiations between industrial and academic actors to define projects " (Solar Energy academic partner MA)

- “At Solar Energy, we're not in collaborative research led by intermediary groups or order givers, but in a joint search. Organizations that mediate relations between industrial and academic, that's just no, we can work very well with them." (Solar Energy academic partner LE)

- “Most of the time, the heads of the twelve projects are with the partners because we at Solar Energy do not necessarily have the competence or even the wish to coordinate. The project is under the responsibility of the project manager, a single project manager, sometimes academic, or industrial, or Solar Energy, it depends. To decide, we look in the Solar Energy community who is best able to coordinate this project. Sometimes they are academics, sometimes depending on the subjects, the projects with a low TRL, rather basic, at 80% are academic project leaders. The projects with high TRL, where we are closer to the pilot line, will be more at the industrial (high it will be from 5 and low it is 3.)” (Solar Energy Project Coordinator)

- “The coordination between the projects and the various partners, is done through the scientific director (50% of his time in academic lab) and myself, industrial researcher, but made available at Solar Energy for three years. So I am more operational and the scientific director allows the scientific balance and is more strategic." (Solar Energy Project Coordinator)

- “Another important interest for the academic world, and in my opinion also important for the industrialists, is to share the target. This is not so obvious that the target in terms of performance, in terms of cost, in terms of the machine, it is to have a roadmap co-built there also between industrialists. For the academic world, it is also very important, to have this visibility there it allows to make choices. we discover something, but we realize that we have all the evidence but that we will not arrive in fine with the objective it will be able to be abandoned, even if it is interesting in itself”. (Solar Energy academic partner MA)

- "We have a certain number of research units that are doing research, albeit relatively upstream, but with applicative aims, and rubbing shoulders with reality, well it works out pretty well." But to succeed in the industrial stage and to keep the same properties as what we saw in the lab, it's not quite the same: we value a lot better when working with industrialists ". (Solar Energy academic partner MA)

TABLE 4:

HR norms: “This form of hybrid organization takes us completely out of our preferred mode of collaboration with industrialists, which is a way of participating in collaborative project projects. (…) The availability is at the researcher's choice, it's his status; up to him to decide whether it's going to be available or not. Therefore, in the construction of these hybrid organizations, it can be a problem, because we cannot operate according to private sector norms! At Solar Energy, they accepted this and therefore our researchers work collaboratively, without contracts with them, they participate in projects, but without being made available, without reporting to the formal departments of Solar Energy.” (Solar Energy academic partner MA)

Reporting norms: “Industrial research is still very difficult for academics One of our three program managers (academic partner) does not want to continue because he says: I spend too much time in the administration, in reporting, I want to bring ideas, collective intelligence” (Industry Efficiency Management).

TABLE 5:

Academics norms: “If we succeed in making sure that researchers feel respected in the sense that they must do basic research, that they communicate ... But on the other hand, they are embedded in applied projects, applications, with a industrial sense, that, for the academics, it would be a real success to get to do it, and so they find there in our institute, an experimental object for them, to be able to combine academic research and applicability of their research." (Solar Energy management)

Intellectual Property practices: "The industrial partners derive a primary benefit from the results that come out of the research ... But beyond that, we are really on a principle of co-ownership, compared to the shares of intellectual property (...). There are actually the interests of the partners at first, but for example at Solar Energy, they want to ensure co-ownership to ensure the sustainability of the organization (...), it's really a partnership work ... " (Solar Energy academic partner MA)

- “I think it's better not to singularize the objectives according to industrialists, academics ... We could give ourselves roles in the institute, say:" The industrialists do that, academics do that, but no, not more It does not exist, we have not thought about it, we just take the partners, their specificities: the academics with their skills that do not necessarily have a great idea of what a project can be, and industrialists with a vision that is still much more industrial, finality, value. The idea of our institute, our added value, is to rely on these differences, to take the best of these differences to do things that is new and different from what was done before, so yes, maybe ask the industry to set the long-term objectives in technological terms, to say, "We need 30% yield in 2030," and for get there to rely on academic skills that will tell us, to have ideas on how can we do it, what science can be applied... But, after that, we need joint projects between the different types of researchers , without saying "your difference is this one and rather than that", while you want to create projects where everyone works together. The idea is to try to erase these differences rather than to stigmatize them, knowing that these differences exist” (Solar Energy management)

TABLE 6:

- "At the very beginning of the institute, we were more on a push R & D logic where the science pushed subjects and was concerned only after knowing how it will happen in the market.I think there is an evolution that Today and even if the scientific director comes from the academic and is much more push, they reach, through the questions that we address, and by the project leaders are academic, but also industrial to appropriate objectives more related to the constraints of the economic environment " (Solar Energy industrial partner)

- “In each project team, there are at the same time researchers Solar Energy, academic and also industrial partners”. (Solar Energy project coordinator)

- "The feedback we have, including at the level of the scientific actors, is that the projects co-joined between academic researchers, industrialists allows them to learn to work together, despite different communities, histories, objectives different, relying on people who all ultimately have a technical sense, it has really come into existence, there is indeed trust and teamwork that is being put in place." (Solar Energy industrial partners)

- “Nobody was in a logic: I take 5 researchers from my home, 5 researchers from home, we put all these researchers together ... In this case, academic researchers do not care, because then works according to its own model and its own way of doing things and we do not care about the collaborative institute." (Industry Efficiency academic partner)

- “Industry Efficiency would have had to rely on each other's skills and combine them, so that people can help each other (...) For example, to help the partner who has the skills I need It was the problem of Zodiac and Airbus, for example, and finally Airbus financed Zodiac so that they could give them the seats. But Industry Efficiency did not organize that ... " (Industry Efficiency academic partner)

- “The leaders of the institute announce: we will do energy audits. I said: ok, we need to be there. They answer: Oh no, no, you at the research laboratory, your role is when there's a research topic, we call you in. (…)" I said it does not work, we want to be in direct contact with companies to be immersed in the issues, but no, that was not their way!" (Industry Efficiency Academic Partner)

TABLE 7:

- “These institutes need to bring together public and industrial interests to create assets that enable the development of new products and services to improve the competitiveness of some and meet the public objective of making widely available alternative solutions to the carbon economy. " (State actor)

- "One of the original features of this type of hybrid organization and their main potential advantage, and this is where they should focus their research, it is the pooling of long-term issues. If two industrialists get together, they do not necessarily have the same business interests, but they can at least share a vision to long term, and also share it with the smallest companies or another company that will also have different interests. But together, it makes several manufacturers in the same industry that get together to define common projects, and that, this is not usual but very interesting to be involved in (...)” (Solar Energy academic partner).

- “On the other hand, very little has been done from our side, regarding the economic model, as this is not our business, .the way they choose to build the economic equilibrium eventually ..." (Solar Energy academic partner)

- "To transform the critical mass, we have to see that the institute exists and that it brings out results that count in the entire photovoltaic community. To do this, we need recognition of the brand" Solar Energy " externally, through communications, it is this scientific recognition, which will make it possible to valorize a certain number of results of the IPVF, for example that big industrialists can be in dialogue with us to buy patents. is also the one that will allow the institute to attract international researchers, that Japanese, German or American researchers want to spend a year at Solar Energy, with the equipment and all types of researchers in this field, linked to the same "Solar Energy" banner, when we have succeeded in attracting researchers of the highest level, this will facilitate our non-state funding in 2014, and will ultimately help us t succeed in our business model business and ensure our sustainability ". (Solar Energy industrial partner)

- "Solar Energy is also a question of industrial policy: will there be a European PV industry or not? Or at least on process bricks, it is this reality of an industrialization of significant photovoltaic components in Europe that is at stake or at least on process bricks, it is this reality of an industrialization of significant components of photovoltaïcs in Europe. It is also succeeding in connecting small and medium-sized companies, large groups in order to create jobs. Succeeding in this, could help determine how we are able in Europe to rely on the reality of an economic sector, generated in Europe through collaborative institutes like Solar Energy, to create a virtuous loop. " (Solar Energy industrial partner)

- “ We must now respond to a broader objective, we will say of general public interest, despite the fact that it is also very concrete. The energy transition is what we develop and the creation of values we are expecting, must serve beyond the consortium, of our 13 private shareholders. We need to develop tools, methods or a specific skill that we will put at the service of the actors of the city, who need them, Beyond our shareholders, our shareholders, our 13, represent almost all the major categories of urban actors who are confronted with the energy transition." (City Energy management)

TABLE 8:

- "We have received funding from the state since 2015, but from 2012 to 2015, we worked exclusively on the basis of funding from our members regions, so six regions, which is very different from the usual setting of these institutions REI ... (...) In our initial project, there was the juxtaposition of an activity of tests and validations at sea with R & D programs, and there is a whole part of the project of the labeled project which finally is not retained by the state. So, first we had to change our objectives at the end of 2014, by eliminating two of the five test sites that were initially proposed, finally the state made us understand that it wanted to finance the test sites only independently (...) I think there is really a question of lack of confidence in the sector's capacity We have therefore both changed techno choices, but also a financing structure with the state, based on project and not directly to our legal entity (…). Beside the changes in techno objectives, and in the long term we are now relying more on objectives linked to societal rationales linked to the development of renewable and also economic energies - that is to say, that there is at the same time working on the relevance of marine renewable energies in the energy mix to be developed in the context of the energy transition and the development of an economic sector in what is called the economy 2 and thus allowing the conversion of shipyards and their workforce. It implies developing skills, systems, etc., that can be exported (...). So, there is clearly a vision that is to develop a French economic sector for export. That's why we consider even more then importance of looking at what's happening overseas, because we're coming into really different paradigms, a cost of much higher energy produced, which makes marine energy relevant much earlier than in metropolitan France. This is an excellent showcase, because here, in the French overseas, we can afford experiments that can not allow other places not connected to the network of archipelago countries, islands, etc., and so it is better to advance on overseas, and it opens these markets. " (Ocean Energy management)

- "The fact that we conduct research in consortium with most of the French actors allows us to formulate opinions that we share with the members and then that we propose in these international circles whether it concerns the actual research, the standardization or the certification, and it is really important to have a French voice in bodies that are, in the case of EMR, very strongly Anglo-Saxon. So, despite the lack of central state support, our industrial members and regions, fully understand the interest of that and they are willing to finance it." (Ocean Energy management)