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## Building Innovation Alliances on Complementary Competences

Part Two: The Dioguardi Case Study  
(Version for the Dioguardi Managers in  
the Case Game)

**Case study**

**Reference no 309-154-1**

This case was written by Alice Comi, under the direction of Professor Dr Martin J Eppler, Università della Svizzera Italiana, Switzerland and Professor Dr Roberto Pietroforte, Worcester Polytechnic Institute, USA. It is intended to be used as the basis for class discussion rather than to illustrate either effective or ineffective handling of a management situation. The case was compiled from published sources.

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**Building Innovation Alliances on Complementary Competences: The Dioguardi Case Study**  
**Version for the Dioguardi Managers in the Case Game**

“... The entrepreneur is required to undertake the role of innovator on a daily basis, especially in the ever-changing scenario of the modern economy...”

(Gianfranco Dioguardi, President of Dioguardi International)

### 1. Company Profile

Dioguardi is a medium-sized building construction company headquartered in Bari, the capital of the Italian province of Puglia - a seaside territory characterized by extensive agriculture, and a long tradition of maritime commerce. Established in 1913, Dioguardi has been involved in the construction of prestigious residential and office buildings, considered by art historians as part of the architectural heritage of modern Bari. During the last decade, Dioguardi has rapidly grown into a pan-European company by undertaking promotional projects across Europe, and establishing local branches in France, Germany and Spain. Rather than growing by acquisition, Dioguardi pursues organic growth, by exporting established capabilities towards the regional subsidiaries, while also consolidating the domestic market. As a result, Dioguardi has a divisional structure, characterized by the delegation of authority to regional subsidiaries, along with the retention of central authority for resource allocation and performance monitoring.

In order to stay ahead of competition, Dioguardi *focuses on high-quality projects*, targeting the niche market of *large and profitable customers*, such as postal and communication agencies, transportation and utility authorities. In the domestic market, Dioguardi can count on a stable basis of current clients, acquired over the years on the basis of trust relationships, and social connections. While also participating in competitive biddings, Dioguardi generally favours negotiated contracts, as they provide a higher profit margin, greater flexibility in the delivery timing, along with space of manoeuvre throughout the construction process. At times, Dioguardi engages in *project finance* for real estate development, by forming equity partnerships with Italian and foreign contractors, as well as with local investors. The equity stake permits Dioguardi to take advantage of investment opportunities with long-term returns, while also mitigating the financial risks inherent to project financing.

Since its founding years, a distinctive feature of Dioguardi is the presence of an *integrated design and engineering department*, providing *pre-construction services* such as urban planning, feasibility studies, and architectural designs. By combining the dual role of *designer* and *builder*, Dioguardi is capable of exercising a *tight quality control* upon the physical transformation of

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design ideas. Dioguardi's *design-build capability* represents a differentiating feature, since very few building companies possess in-house design functions, while also collaborating with a number of leading architects. By offering customized design and engineering services, Dioguardi leverages the trusted role of the architectural profession, establishing a personal relationship with clients. Moreover, the in-company integration of design and building enables Dioguardi to *tailor* project specifications based on the technical competence of the construction workforce, while also facilitating the exploration of *innovative construction methods*, technologies, and work procedures. An example: the synergies between the design and construction departments paved the way for the development of an innovative technique for building underground garages in congested urban areas, based on subsoil consolidation, micro-pile installations, and retention walls. Dioguardi's construction capability also extends to the implementation of civil engineering projects, the revaluation of urban areas, and the restoration of existing buildings. In the nineties, Dioguardi's experience in the *renovation field* was applied to the revaluation of the historical center of Bari, with the project execution being accompanied by the creation of a software package for documenting the city fabrics with texts, surveys, and maps.

Besides specializing in design and building construction, Dioguardi conducts *research and development*, making extensive use of information technology for the purpose of improving organizational efficiency, while also extending its know-how. With regard to construction methods, the R&D efforts lead to industrial processes, mostly by breaking down repetitive projects into standard and prefabricated building components. By adopting this approach, Dioguardi strengthened its in-house design division, fostered the development of construction capabilities, while also decreasing the cost of recurring projects. As regards construction technologies, Dioguardi patented two lightweight systems: *Binistar* is a steel space frame structure, while *Arclatum* is an arched roof of glued laminated timber designed in-house. The two lightweight systems are currently used for sport, exhibition, and cultural installations, permitting the implementation of geodesic structures to be erected and dismantled in a relatively short time, with the use of mechanic and pneumatic assembly methods. Regarding work procedures, the R&D function created a research lab to be used for solving specific problems at construction sites, and diffusing solutions to other building sites. In addition, Dioguardi developed Ipercantiere, a software system for managing the documentation of construction processes, thus complementing the functions provided by the CAD stations in the design and engineering division.

In the early nineties, Dioguardi recognized the increasing demand for *post-construction services*, and accordingly set up a division in charge of providing maintenance services, particularly to clients with large building portfolios. To this end, Dioguardi promoted the in-house development of *Phoenix*, a software system for assisting the management of maintenance programs in large building portfolios. In addition, Dioguardi extended the service offering by giving birth to an itinerant laboratory for providing consultancy on technical maintenance, energy-saving matters, and urban sociological aspects. Conceived in collaboration with a leading architect such as Renzo Piano, the Neighborhood Laboratory reflects Dioguardi's philosophy of carefully integrating the building operations within the surrounding social and cultural context.

The differentiating features of Dioguardi's offering are further reinforced by a *prestigious image*, created by undertaking high-visibility projects, sponsoring cultural programs, and giving back to the local community. In the nineties, Dioguardi's managing director became involved in the development of Tecnopolis, a technological park aimed at supporting industrial development, scientific progress, and technological innovation in Southern Italy. In addition, Dioguardi's social role was reinforced with the creation of La Meridiana, a company division in charge of sponsoring cultural programs for the public at large. In recent times, Dioguardi has financed the renovation of the Margherita Theater in Bari, a landmark building subject to progressive decay due to the lack of public funds for the needed maintenance.

## 2. The construction market

In order to present the operational context of Dioguardi, this section outlines the various phases of the building value-chain, along with the challenges resulting from the recent evolution of the competitive environment. In essence, the building value chain can be described as a sequential process composed of multiple stages, namely *initiation*, *planning*, *design*, *construction*, *property management* and *maintenance*.

1. The *initiation* phase is marked by the perception of a customer need or investment opportunity, and concludes with the expression of a project objective.
2. The *planning* phase involves the formulation of a series of tasks for meeting the above objective, such as land acquisition, project scope definition, and project financing.
3. The *design* phase involves the transformation of the project objective into a set of graphic representations and construction specifications.
4. The *construction* phase involves the transformation of design plans into physical reality, leading to the edification of a new building, or the renovation of an existing one. After completion, the building delivers an output, namely a service to users, or a revenue stream to investors.
5. The final phase of the value chain is intended to maximize the output delivered by the building. In particular, *property management* involves running operations to reap economic benefits out of the building, while *maintenance* consists in performing upkeep interventions to contain the functional obsolescence of the building.

In highly developed economies - the context of Dioguardi - the growing organizational, technical, and procedural *complexity* of the construction process requires a building company's active participation in *all* the phases of the value chain, from project initiation to property maintenance. In particular, the *expanded scope of services* requires the acquisition of novel capabilities, such as coalition building, financial engineering, and service integration. Although providing value-added features, Dioguardi is essentially a *technically-oriented company*, with a long way to go in the provision of multidisciplinary services. Furthermore, macro changes in the world economy in general, and in the construction industry in particular, are creating new opportunities and challenges for medium-sized building companies such as Dioguardi. These challenges include:

- In light of the economic downturn, the construction industry is changing substantially, with a steady decrease in the private demand, along with a marked reduction in the economic value of buildings. As regards the Italian market, the *public sector* currently represents the primary investor in large constructions, and is influencing the housing demand through subsidized financing and social grants. Unavoidably, this scenario imposes Dioguardi's management to redefine its company positioning, for example by increasing the participation in competitive biddings issued by governmental agencies, while also consolidating the presence in foreign markets. To this end, Dioguardi should increase cost effectiveness, by improving coordination mechanisms, control procedures, and sub-contract management.
- The developments in information and communication technology, internationalization of financial market, and global procurement of resources permits building companies to *operate internationally*. Because the market for construction-related services is no longer bounded geographically, competition and opportunities for new projects will increase both domestically and internationally. However, in order to successfully compete in the international arena, a building company requires organizational flexibility, sensitivity to cultural aspects, and a multinational workforce.
- The social concern for the natural environment requires the construction industry to embrace the paradigm of *ecological responsibility*, by reducing the building impact through sustainable architecture, construction, and maintenance. Although posing considerable challenges to company operations, *sustainable building* represents an emergent market, attracting investments among both public commissioners and private customers.

The above described situation seems to favor large and integrated multinational construction corporations. Alternatively, the above challenges can be addressed through the constitution of strategic alliances, mergers, or acquisitions. Dioguardi's management considers the alliance option as particularly attractive, for offering the possibility to acquire complementary competences, without investing in specific assets. Its main alliance candidate is described below.

### 3. A potential partner: Beacon Construction

At present, the senior management of Dioguardi International is considering a strategic alliance with Beacon Construction, a medium-sized company with main operations concentrated in the Boston, Chicago, and Atlanta areas. Besides presenting the potential to deliver synergies and innovation, such an alliance would not involve the risk of losing competitive terrain, since the companies operate in different markets, and are partly controlled by the same private-equity investors. Similarly to Dioguardi, Beacon undertakes building projects of a complex nature, but also specializes in a wide range of *pre- and post- construction services*. In this regard, Beacon presents itself as a *professional consultant*, assisting customers throughout the entire building process, from project initiation, to construction operations, and property maintenance. In particular, Beacon presents outstanding expertise in *financial engineering*, and accordingly fosters *project initiation* by mastering the relationship with financial institutions, insurance companies, and equity investors. Currently, the core of Beacon's customers is rep-

resented by private educational and health care institutions, controlling large building portfolios with recurrent needs for construction and rehabilitation projects.

#### 4. Your assignment

In this case game, you should take the role of Dioguardi's senior managers, and make a decision about whether to partner with Beacon or not, by assessing the potential for the strategic alliance to create value. Since the mutual information base is admittedly insufficient for both sides, Dioguardi's president invited Beacon's senior managers to your company's headquarters, in order to exchange information about the respective competences and to identify innovation opportunities. In preparation for the meeting with Beacon senior managers, you should first conduct an internal discussion of approximately **15 minutes**. In particular, you should perform the following tasks:

1. Make your company's (Dioguardi's) **main competences** explicit. Besides extracting relevant information from section 1, you can refer to the Appendix for an overview of selected projects (10 min.).
2. Conduct a tentative identification of your potential partner's (Beacon's) **main competences**, based on the limited information contained in section 3 (2-3 min.).
3. Appoint a person for facilitating the joint meeting with Beacon managers (1 min.).  
*The facilitator will assist the joint meeting, by ensuring adherence to the agenda, keeping the time for each assignment, and documenting the conversation outcomes with the means provided by the organizers.*


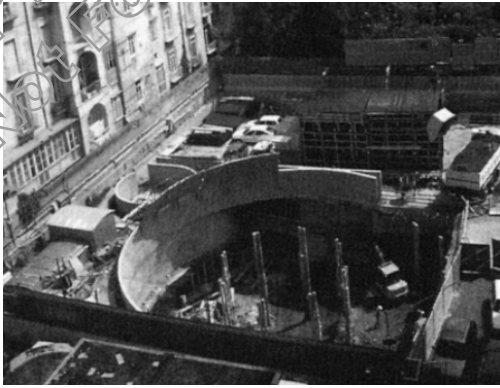

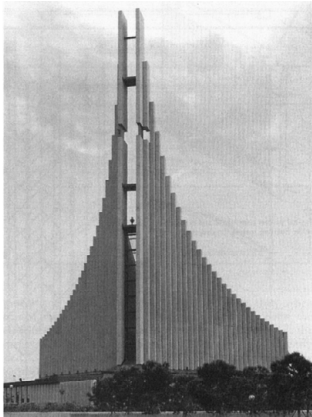
At the end of the internal discussion, you will meet with two Beacon senior managers.

**Under the guidance of the facilitator (one of you), you should engage in a 40 minutes conversation aimed to exchange information about organizational competences and, consequently, to identify joint innovation opportunities.** Working in collaboration with Beacon's executives, you should thus perform the following tasks:

1. Identify **complementary competences**. At the outset, establish the building construction value chain. For each stage of the value chain, then discuss Dioguardi's and Beacon's main competences. Please notice that certain competences may span diverse stages of the building construction value chain. Finally, identify complementary competences, whose integration may lead to the achievement of synergistic outcomes (20 min.).
2. Explore **opportunities for joint innovation**. Building on the complementary competences identified in step 1, explore innovation opportunities to be carried out in the context of the prospective alliance. To this end, make explicit the market challenges and opportunities faced by your companies, by integrating information about the Italian and North American markets. Therefore, generate opportunities for joint innovation, by considering how complementary competences may be leveraged to successfully address each market challenge or opportunity (20 min.).

Towards the end of the joint meeting, you should be in a position to make an informed decision about the prospective alliance, based on the *competence complementarities* and *innovation opportunities* previously identified. **Working independently from Beacon's representatives**, please express your opinion about the value potential of the prospective alliance, and accordingly decide whether or not to go ahead with the collaboration.

## 5. Appendix

	<p><b>Margherita Theater Project, Bari</b></p> <p>Project type: restoration project Funding scheme: project financing</p> <p>Main features: The renovation plan has been designed in collaboration with the renowned architect Renzo Piano. The restoration project involved technical complexity, and demanded superior competence in concrete work.</p>
	<p><b>Monte di Dio Parking Project, Naples</b></p> <p>Project type: underground garage building Funding scheme: negotiated contract</p> <p>Main features: This building is a leading example of Dioguardi's superior technical competence. In fact, this underground garage required soil consolidation, micro-piles foundation, and reinforcing walls.</p>
	<p><b>Exhibition Pavilions, Seville</b></p> <p>Project type: temporary building Funding scheme: project financing</p> <p>Main features: Realized with the Binistar system, these temporary pavilions were installed in occasion of the 1992 Expo.</p>
	<p><b>Santa Maria Madre del Redentore, Rome</b></p> <p>Project type: church building Funding scheme: negotiated contract</p> <p>Main features: This building has been realized with an innovative system of prefabricated and assembly components, realized by the famous architect Pierluigi Spadolini.</p>



## 6. References

Associazione Nazionale Costruttori Edili (2009). *Osservatorio Congiunturale sul settore delle Costruzioni. Edizione Gennaio 2009*, Retrieved from <http://www.ancecremona.it/doc/Osservatorio-congiunturale-sul-settore-delle-costruzioni-gennaio-2009.pdf>

Gianfranco Dioguardi website, <http://www.gianfrancodioguardi.it/>

Pietroforte, R. (1996). *Building international construction alliances: successful partnering for construction firms*. Taylor & Francis, 128 pp.