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## **Innovation in food: observations on an emerging professional domain**

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### **Abstract**

Professions are not only primary targets of institutional change, but also key contributors to innovation processes. By focusing on how the knowledge needed in support of innovation is professionalized and reaches accepted modes of organizing work, the paper explores the emergence of a new professional domain and the institutional dynamics of innovation associated to it. It does so by investigating the development of innovations in food industries. By proposing a reflection on the mechanisms that underpin the professionalization of design activities, the findings provide insight on the processes of formalization of creative types of skills and portray that such activities, while relying on creative inputs from individuals or groups of individuals, would benefit of a set of coordinated initiatives also at the professional and institutional levels.

## **1. Introduction**

The increasing presence of activities that rely on professional knowledge has oriented scholarly curiosity towards better understanding the institutional dynamics attached to professionalization, such as the mechanisms of knowledge formalization or the emergence of new professions or professional domains. The current paper explores the interplay between the emergence of a new professional domain and the institutional dynamics of the industry(ies) within which professionals operate. In doing so, it builds on the literature that stresses the importance of professionalization mechanisms as the trigger for institutional change (Muzio et al., 2013) and according to which professions are not only primary targets of institutional change, but also key contributors to innovation diffusion processes (Adler and Kwon, 2013).

Previous research has suggested that the professionalization of a certain practice represents one major step towards the demarcation of a field's boundaries and the possibility for professionals to exercise their authority (Hodgson, 2002). This becomes debatable when the object of specific practices is intangible or depending on individuals' creativity. This paper seeks to delve further into these aspects by selecting design activities as the perspective of analysis. Design activities are knowledge-intensive activities for which accepted modes of organising work have not emerged yet, despite the proven economic relevance of these types of activities within modern economies (Mietzner and Kamprath, 2013).

The empirical background is represented by the food industry in Italy. Interestingly, mass consumption industries like food (Stashenko, 2009) are considered as been featured with 'traditional' innovations and less bound to symbolic- or aesthetic-driven innovations. Nevertheless, in a climate of economic austerity firms within these industries must abide by the 'innovation rule' if they are to compete on a global scale. The focus on how design can impact on the innovativeness of Italian food firms and the increasing importance of aesthetics and creativity in such contexts (Capitanio et al., 2010) gives me the opportunity to investigate the role of knowledge in creative industries to support innovation.

At the theoretical level, the paper deals with the forming of an instituted structure to replicate and develop new knowledge and support innovation in food production. By reflecting on the professionalization mechanisms that characterize design activities, the paper provides insight on the processes of formalization of creative skills and argues that creative activities, although relying on individuals' creative inputs, would benefit from institutional intervention and in turn generate innovation within the industry. At the empirical level, it is emphasized

that the rising professionalization of design has shaped the emergence of a new professional domain, food design, which is defined as the application of design knowledge broadly speaking to the manufacturing and commercialization of food products. Whilst this study does not aim at providing the 'recipe for success', it reflects on the raising importance of design for firms that operate within the food industry and highlights how food innovation through design relies on a pattern of professionalization that relies on knowledge that becomes formalized and not necessarily codified (Balconi, 2002).

Section 2 reviews the innovation literature with particular regard to creative industries and attempts to explore how the concept of food innovation has been explored in the past. This section also provides an overview of the theories of professionalization in order to address how creative activities like design can contribute to the institutional dynamics of innovation. Section 3 introduces the empirical setting and describes the research methodology. The findings are illustrated in Section 4 and discussed in Section 5. The last section formulates the conclusions, discusses the limitations of the research and suggests areas for further research.

## **2. Literature review**

Given the central focus on food innovation for the research question raised above I will review the (scanty) innovation literature that explores how the meaning of food innovation has evolved over time. Then, I will attempt to describe how existing professionalization theories can only partially account for the emergence of those professions that rely on creative knowledge.

### **2.1 Innovation in the food industry: the role of creative activities**

Food innovation can be considered a "buzzword" (Geyzen et al., 2012), although it is not a novel concept. The term innovation has acquired different meanings in the context of food industries, and what renders this theme fascinating is also what makes it a difficult subject to study. In most cases this industry has been regarded as a sector with low research intensity (Martinez and Briz, 2000, Grunert et al., 1997, Christensen et al., 1996), although evidence suggests that it is becoming more technology intensive (Traill and Meulenberg, 2002). As a result, product and process innovations are becoming important instruments for food companies to stand out from competitors and meet consumers' expectations (Menrad, 2004). The ERIS survey conducted in Germany has highlighted that around two thirds of the innovating companies used both types of innovation (ZEW, 2000, 2001). Moreover, they found that the main targets of product innovations of food SMEs are focused on market and

demand-oriented issues; this relates to a better penetration of new products in existing markets as well as the improvement of product image and design (Menrad, 2004:866).

A unique feature of the food industry is that the definition of new products varies according to the perceptions of the actors that populate the system (Siriwongwilaichat and Winger, 2004). Thus, in order to facilitate and support innovation activities, actors should focus not only on the established product versus process innovation types, but also on the experience of consumers, including specific product specificities or how products should be arranged within the supermarket (Venturini, 2008). Recent scholarly contributions have underscored the increasing degree of interpenetration between creative and food industries, including for instance haute cuisine, where individuals are perceived as drivers and the source of the innovation process (Hotho and Champion, 2011, Braun and Bockelmann, 2013, Rao et al., 2003) and, at the same time, the fulcrum of single business models (Svejenova et al., 2010, Svejenova et al., 2007). Even though design has been poorly conceptualized as a creative economic activity in companies (Hobday et al., 2011), aesthetics and design have been found to play a key role within food industries, leading to food firms engaging with them. For instance, Kraft has protected the design of Toblerone with a trademark, or McCain Foods has assigned the design of their products to a design consultancy firm (Design Council, 2010).

The focus on the role that creativity plays in fostering food innovation finds however a broader justification: creative industries are exponentially growing in modern economies (de-Miguel-Molina et al., 2012) and there is an urgent need to better understand on which ground these industries build and develop competitive advantage. In general these industries involve an expressive act such as music or design, and their output is considered an asset with an economic value for consumers, investors, firms, and governments (Tepper, 2002). This very characteristic obstructs the assessment of how creativity concretely impacts on the economic performance of the entities involved, being these firms, specific sectors or industries, or entire economies. To address this aspect, I propose to build on the professionalization literature (subsection below) and explore the formalization and establishment of instituted practices that lead to a consensus among actors.

## **2.2 The professionalization of knowledge-intensive activities**

Adler and Kwon (2013) suggest that professions' traditional autonomy and collegial control are increasingly been challenged by market competition and hierarchical accountability, which leads them towards an efficient logic and business structure. Professionalism is thus

theorized as a diffusion process, that is, “as the contested diffusion of new organizing practices among professionals” (2013:931).

Historically, professions have developed with people's recognition that professionals were doing something not covered by other professions and providing a high-quality service, often with the consent and support of the state (Morris et al., 2006). Within the same professional field, routines are largely shared in the sense that the abilities and choices of an individual practitioner are shaped by the ability of those with similar or complementary skills. As Langlois and Savage (1997) point out, although each practitioner produces independently, all practitioners execute their routines in an environment created by other professionals. Therefore, identifying the knowledge base on which professionals can claim their professional status becomes of crucial importance.

Much of the early work on the institutionalization of a profession is rooted in the various approaches proposed by the sociological literature (Becker, 1970, Abbott, 1988). As widely discussed by Hodgson (2002) and Morris et al. (2006), initial studies concentrated on the ‘trait approach’, consisting of inductively compiling an exhaustive list of features related to the core elements of a profession, or the ‘functionalist approach’, suggesting that professions are distinctive compared to other occupations because of the importance of specialized knowledge for the functioning of society as a whole (Hodgson, 2002:804). Other approaches followed, such as the ‘critical perspective’ and ‘the interactionist conception’, and in general, professions scholars have attempted to frame each of them in various disciplines such as medicine, law, and church (Barber, 1963, Parsons, 1968, Etzioni, 1969). With the emergence of an increasing number of professions, defining their institutional position has become more challenging. The project management profession has been a recent case of establishment of a new profession, and which has received scholars' attention (Hodgson, 2002, Cicmil et al., 2006, Morris et al., 2006). While reflecting on the traditional functionalist-trait conception of ‘professionalism’, Hodgson (2002) defines professionalization as the accomplishment of the following initiatives: the formal internal organization of the occupation; the promotion of accredited training programmes; the need to expand credentialism within job markets for the professionals; and the development of a core body of knowledge that would serve to “construct a world in keeping with the ontology espoused by the discipline” (Hodgson, 2002:807).

Within the knowledge economy there is broad agreement that innovation originates in the creativity and innovator capability of people (Hotho and Champion, 2011), regardless of the

degree of professionalization specific sets of knowledge have reached. The emphasis has shifted to knowledge workers and their ability to create and share new knowledge as well as innovate through it (Florida and Goodnight, 2005). Creativity relates to a particular body of knowledge that can either be tacit or formalized: the former contributes to express a substantial part of the conceptual processes of making up creativity, whereas the latter can be acquired through education or other sources focused on design aspects. How can individuals, organizations, or other relevant actors benefit from such creativity? Reaching an accepted mode of coordinating activities that rely on creativity or, broadly speaking, tacit knowledge, remains a challenge.

I hereby suggest that the professionalization route can help identify and explore the mechanisms through which (creative) practitioners become part of a community and contribute to the generation and exploitation of knowledge and establishment of the related discipline. Professionalization can be conceived as the attempt to maximize the productivity and leverage the tacit knowledge of creative individuals (Mumford et al., 2002, Adler and Kwon, 2013). Savage (1994) recognized that professional production contains many standardized routines and proposes that production itself is far from routinized; “very few of the decisions that professionals make can be completely pre-specified” (1994:135). Professionals are expected to translate requests from clients into production by combining standardized routines and their own experience into decisions.

Interestingly, organization and industry scholars have hardly been concerned with the idea that practitioners need a basis on which to build their accountability. Based on the institutional tradition (Scott, 2008), Suddaby and Viale (2011) and Lefsrud and Suddaby (2012) link changes in professional practice and organizations to broader societal transformations. As Muzio et al. (2013) point out, the first way in which professionals restructure institutions is by opening up new spaces for their expertise such as the creation of new institutions (Dezalay and Garth, 1998) or the development of new practices (Rao et al., 2003). The present paper seeks to explore both the mechanisms of professionalization that characterize creative type of knowledge and the changes brought, or required, by the establishment of a new professional domain.

### **3. Research methodology**

The professionalization perspective gives us the chance to learn about the mechanisms through which a body of knowledge relying significantly on tacit knowledge undergoes the

formalization process. This section provides details of the research setting (Section 3.1) and techniques adopted for data collection and analysis (Section 3.2).

### **3.1 Research setting**

Design is selected as the case for exploring professionalization mechanisms of the type described above for two reasons. Firstly, the creative element points to the non-formalized nature of its body of knowledge, which makes the research potentially applicable to other non-formalized bodies of knowledge typical of some service activities (e.g., consultancy). Secondly, and connected with the previous point, design refers to (i) *knowing what*, the explicit and stated rules of going about a task, and (ii) *knowing how*, the implicit and internalized knowledge and individual way of doing something (Walsh et al., 1992:49). Being able to understand how knowledge-intensive activities become professionalized means being able to discriminate between the objective knowledge professionals acquire via formal training and the subjective, more personal knowledge professionals develop through practice. It is recognized that designers need to integrate these two types of knowledge and deliver innovative outputs (Vincenti, 1990). They are also required to be creative in a particular way, that is, they need to be able to visualize something that did not exist before and to manipulate and represent an idea through sketching, drawing, and modelling. Utterback et al. (2006) remind us that the designer plays the role of *gatekeeper*, that is, broker of knowledge on design languages despite the centrality of technological knowledge. They do not act as sociologist: rather than focusing on emerging phenomena in the society, they talk more about new, unexpressed needs of users, and observe proactively socio-cultural models for the aims of opening up new opportunities for growth. The processes through which they embed technologies created by the scientists into usable artefacts are however less rigorous and explicit (Simon, 1969, Beckman and Barry, 2007).

In the context of food industries design is often conceived as lying in the middle between sales people who want to freeze the product, marketing people who want an ever expanding selection to compete, and technologists who are constantly pressing for performance improvements (Berkowitz, 1987). As Catteral (1999) pointed out, “today food is a mass-produced consumer commodity, and as such has as much claim to be a designed object as the Ford motor car” (Meroni, 2000:6). Under this light, the research explores whether there is scope for an autonomous, well-defined field within which the interplay of various disciplines generates new rules, new mechanisms of interaction, and potentially a new paradigm.

Hodgson (2002) has argued that the efforts made to form institutional support to project managers through associations have resulted in the emergence of professional bodies in many developed countries and an association at the European level. In this paper it is argued that the experience from project management applies only partially to design because this latter relies on a non-codified body of knowledge. In fact this hinders the possibility to assess to what extent a designer is 'talented' or his(her) efforts are 'good enough' due to the difficulty to identify attributes against which assess individuals' creative potential in organizations (Katz and Giacommelli, 1982, Elsbach and Kramer, 2003).

The establishment of a professional association is among the first, substantial step to be completed. Professional design associations and other structured bodies have emerged across Europe (e.g., United Kingdom and Scandinavia) and beyond the European context (e.g., United States). In Italy a major step towards this direction has been the establishment of the Associazione per il Disegno Industriale (ADI)<sup>1</sup> in 1956, when Italians were highly motivated to renew (i.e., re-design) their life. Design became the means through which spreading the culture abroad and building a reputation for high-quality products. Moreover the association supplemented the profession's accountability by propagating new practices or standards and disciplining those who deviate from established standards (Emanuel and Emanuel, 1996, Adler and Kwon, 2013).

The professions literature sheds light on other aspects of our analysis. Hodgson (2002) drew attention to the relevant role played by project management associations in the United States and United Kingdom in the professionalization of the field. The strategies of the associations he refers to were inspired by other, more established professions such as physician and lawyer. Drawing from this, it is worthwhile recalling the role played by ADI in the Italian context, more specifically: the requirements for becoming a member, the activities organized by the Association and the benefits for members, and the contribution of the Association to the wider recognition of the design profession. ADI members should be graduates from the architecture or other design-related faculties; alternatively they should run a business significantly focused on design (e.g., manufacturing design products). Moreover the foundation of ADI has fostered the emergence of legal standards regarding the way business practices were conducted (e.g., typology of contracting, establishment of a nation-wide register), then transformed into rules. Finally, there seems to be no specific requirement regarding the specialization area of the professional; this implies that members are free to

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<sup>1</sup> In English, *Association for Industrial Design*, <http://www.adi-design.org/homepage.html>.

practice in any field of design such as, for instance, interior design, product design, or architecture. Although to date efforts focused on fostering regular interaction among professionals and support new business opportunities (e.g., establishment of 'chapter' bodies that could delve into specific areas of specialization), associate members expect wider impact and stronger visibility both in Italy and abroad.

The empirical setting of this study is represented by the food industry in Italy, where innovation, whether process, product, or organizational, is a strategic factor for the firm and the whole industry (Capitanio et al., 2010). It should be emphasized that the industry represents a major contributor to the economic wealth of the country with increasing export levels registered in 2013 (AA.VV., 2013, Marras et al., 2012). With particular regard to design, the choice of the Italian context offers the possibility to explore the evolution of design in a setting where practitioners have attracted significant attention and their contribution has been recognized worldwide (De Fusco, 2007, Maffei and Simonelli, 2002, Verganti, 2003, Bertacchini and Borrione, 2008).

### **3.2 Research design: data collection and analysis**

The current paper tries to explore how the specific mechanisms through which design knowledge becomes professionalized can support innovation and firm competitiveness within the food industry. Due to the widely unexplored topic, the research builds on a single-case study, an approach considered to offer the best opportunities to learn and build or extend theory (Eisenhardt, 1989, Gerring, 2004, Yin, 2009). By selecting the domain as the unit of analysis, the case is represented by food design in Italy. The selection of the country is justified by the recognition different national sectors have built over time as well as the commitment shown by practitioners.

The research lies on qualitative primary and secondary data collected between March 2008 and July 2010. The first step consisted of reading and analysing secondary materials, namely: books edited by Sistema Design Italia (SDI),<sup>2</sup> one of the major design research centres in Italy, further to a research commissioned by the Italian Ministry for University, Science, Technology and Research, materials provided by ADI, and additional materials available online. These were used to explore how design has evolved in Italy, and how the discipline has been organized and regulated. The second step consisted of designing and conducting primary interviews with both experts and practitioners in the field. Given the exploratory and

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<sup>2</sup> In English, *Italian Network of Design Research Agencies*, <http://www.sistemadesignitalia.it/>.

wide-in-scope nature of this research, hearing the experts' view was considered important even though the range of potentially relevant information provided by interviewees is restricted much more than in other types of interviewees (Flick, 1998). By acting as gatekeepers for further contacts and data sources, expert interviewees broadened the possibility of data access. They were selected among researchers from SDI and sectoral associations in Italy (Table A.1). The second set of interviewees was represented by designers, who were approached in conjunction with another research project of wider remit in which the researcher was involved. Interviewees were selected from the list of ADI members available on the association's website; the sample was defined by respecting the geographical distribution of the members (Table A.2). Whilst expert interviews took place mainly face-to-face, interviews with design professionals were conducted over the phone. In general, the following aspects were tackled: the role played by design organizations (professional, sectoral, etc.) in fostering the establishment of the discipline; the extent to which the role of these organizations influences the practice of the profession; the nature of activities undertaken by design organizations with regard to design and food design more specifically; and the nature of relationships between these professional associations and practitioners or firms. Exhibit A.1 reports the interview guide.

Data analysis consisted of categorizing the materials based on a set of themes rooted in the profession and creativity literatures (Hodgson, 2002; Hotho and Champion, 2011; Muzio et al., 2013), which examined the following aspects: the emergence of a new domain; the subsequent development of the education system as a response to various stimuli; and the role played by events organised by practitioners or the relevant industrial associations. These themes are reflected in the subsections discussed in the findings (Section 4). Due to the exploratory and partly speculative nature of the research, an interpretative approach was adopted to identify what constitutes food design and how the configuration of the industry has been shaped accordingly. In general, the objective was not only to describe data, but also to interpret, explain, understand and, where plausible, predict which mechanisms of professionalization might characterize knowledge-intensive activities (Dey, 1993; Mason, 2002).

#### **4. Findings: emergence of a new professional domain**

In order to trace the mechanisms through which design activities have shaped the growth dynamics of the food industry, this section focuses on the initiatives undertaken to define

food design (Section 4.1), the ways in which the educational system has adapted (Section 4.2), and the relevant events that have emerged over time (Section 4.3).

#### **4.1 Defining food design**

Given the aim of this paper to explore the professionalization mechanisms underpinning creative knowledge, this section draws attention to some developments that have characterized design and food design since the early 2000s. Within ADI, some specialists of the food sector pointed out that design applied to the agro-food industry “*is mistakenly understood as a luxurious component of food products addressed to the high-end of the market*”. In order to shed light on this concept, ADI decided to establish a delegation that could proactively work towards drawing the boundaries of the discipline and develop a common ground for professionals, firms, and other relevant actors.

The first, major outcome of their work has been *Il Manifesto del Food Design*<sup>3</sup>, a document that laid the foundations of food design. The document has been written both in Italian and English. Its value has soon been recognized abroad, in particular by a Belgian company that also wanted to establish a similar setting in their home country (from expert interviews).

The first section of the official document reads as follows:

*“Food design is the culturally-aware design of products in which food and tools work closely together, blending the features necessary to meet a requirement linked to the consumption of a food product, into a single interface.*

*Phenomena that can be described as ‘trends’, such as Show Food, Food Art, Media Food and Concept Food, should be seen as a form of ‘spectacularisation’ and a long way from the concept of a design culture, which is behind the fundamental idea of the studies of Food Design as a discipline.” (ADI, 2006)*

With creativity being a significant component of design, activities that are not about design could be easily misinterpreted. The definition seeks to define what food design is and what it is not. It specifies that design in the context of food industries is about the product, but also the tools that are potentially developed in parallel to a specific food product. It also specifies that design is meant to be a discipline.

The document continues with the following:

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<sup>3</sup> In English, *The Manifest of Food Design*.

*“ergonomics, divisibility, contextualisation, functionality, problem solving, practicality, technology, innovation, progress, research, economies of scale, correct price/quality ratio, customer satisfaction... these are just some of the most important keywords and parameters analysed during a Food Design process, and which also form the basis for research.” (ADI, 2006)*

The boundaries of the field are delineated by placing emphasis on the dimensions that are worth considering. The definition lines up with the general principle that design is not only about aesthetics but also functionality and problem solving. Moreover, the definition draws attention to food design as being a process, a succession of phases throughout which newly generated knowledge is coordinated and accumulated for innovation purposes.

The presence of a professional body encompassing rules, formulas, models, techniques, and dedicated terminology, serves to construct a world in keeping with the ontology espoused by the discipline (Hodgson, 2002). At this regard the Manifesto considers food design as the ability to solve service problems related to the moment of food consumption at the time of nutrition, socialization, and pleasure. In particular, three scenarios are conceived: designing places or tools for the production or consumption of food only admitted if the product is the starting point of the design of a concept store; food design as the creation of food products made from edible materials; and design capacity as the simultaneous design of foods and related tools (ADI Commissione Food Design, 2006). The document continues: *“In order to work in Food Design you must have good, in-depth knowledge of the characteristics and techniques of the transformation of food (cooking), and of all the basic disciplines needed to work with food, so as not to create consumer health risks. That a product design is contextualized in the area of Food, is not a necessary and sufficient reason for it to be called an article of Food Design”* (ADI, 2006). It follows that the various actors involved such as designers or producers should be suitably prepared from a sensorial point of view and acknowledge the processes leading to the identification of the form as the final phase of design projects. Furthermore, the document lists the fields to which design can be applied and clarifies how it differs from product packaging. An expert interviewee suggested that *“one can speak of ‘Food Design’ in Packaging only when the design of the container serves consumer requirements, otherwise it becomes mere graphics or marketing, designed to boost product sales”*.

Although worth of appreciation and stimulus for future endeavours, the above definitions still require a deal of judgement to recognize when design occurs. In fact the depicted scenario

constitutes a clear attempt to differentiate food design from product design concepts in food attached to aspects of pure marketing, and also to identify tools, competencies, and skills needed to push the boundaries further. This dimension brings forward the competing relationship among the professions emerging within the same field, such as gastronomy experts, food technologies, or marketing specialists. As each of these is mainly concerned with pursuing their specific objectives, further effort is needed towards making the subjective as objective as possible and establish a more consistent identity for the new professional domain.

#### **4.2 The educational system**

Education plays a crucial role in defining the boundaries of new knowledge domains and scientific disciplines. Thus it is important that, in parallel to the development of a domain on which food designers can build their accountability, the educational system evolves accordingly. The transformation of university education including new courses and changes in existing education standards plays a key role in setting the standard for curricula at lower level of education (Vona and Consoli, 2011). This means investing on the creation of a system that embeds professional and graduate programmes for the development of satisfactory curricula and the professionalization of the related body of knowledge.

Our interview data suggests that major design schools in Italy started to organise both undergraduate and postgraduate courses along with professional training with a focus on food design. The University of Gastronomic Sciences has been the first academic institute originating in collaborative projects with the regions of Piedmont and Emilia Romagna and focusing on the culture for food. Based in two sites, Pollenzo (Turin) and Colorno (Parma), the institution offers undergraduate and postgraduate degree programmes, respectively (e.g., Communicating quality products). One of the main priorities set by the directors of the School has been that of contributing to the establishment of the expert in gastronomy ('gastronomo' in Italian), namely, a professional with expertise in different fields such as production distribution, promotion, and communication of high-quality agro-food products. Another set of programmes includes those by the Politecnico di Milano, the Istituto Europeo di Design (IED), and the Libera Università di Lingue e Comunicazione (IULM). Among their range of programmes it is possible to find a Master on Food Culture and Marketing, training courses on Food Design and Food Marketing, and other modules on these topics within other design programmes.

To continue with the list of internationally recognized education institutions, there is ALMA School, a school for Italian cuisine located in Parma, one of the most known food areas of the country. The name derives from the Latin term 'almus', meaning 'that nurtures'. The school was founded by Gualtiero Marchesi in 2003, a cook who put efforts towards enhancing the value of Italian cuisine and food products and favouring their diffusion around the world with the support of local institutions. The School is equipped with large lounges, kitchens, technologically advanced kitchen tools, library, all of them focused on products from the agro-food industry such as wine, patisserie, and novel cuisine. The School has set up one-year courses on specialized cooking and can also offer shorter training courses for experts in the field. To further trace the identity of the School, the founder has published a book, *Il Codice Marchesi*,<sup>4</sup> in which he describes his approach to conceive a dish. He emphasizes the role of different components – colours and fibres – throughout the process of designing ('creating') a new dish. According to Gualtieri's view, food design draws on a series of ideas and concepts, namely: harmony, beauty, civilization, colour, genius, taste, invention, lightness, myth, territory, tradition, truth, and simplicity (Marchesi, 2006). The 'artist' is seen as a manipulator whose talent lays in the ability to coalesce the nature of the food with the transformation process it is subject to. The cook can be considered as a designer in the kitchen: starting off from ergonomics and functionality, "*the chef combines various ingredients to obtain a dish that has to be both aesthetically pleasant and tasty*" (from interview with Davide Scabin, in AA.VV., 2007).

The idea of Alma School originated in the aesthetic dimension of food design and the development of cooking skills such as preparing dishes and presenting them in a 'designed' way is among their priorities. Conflicting debates are in place as to where the boundary between style and design lays within food: while opponents may be biased towards innovations that draw more explicitly on the use of technologies, they neglect that innovative ways of presenting food products may shape consumers' future tastes and subsequently the way food firms think through and build their competitive advantage.

#### ***4.3 Importance of events and other types of initiatives***

In the context of creative industries, specialized events play a key role in supporting the development of a specific discipline (Maskell et al., 2006). In a similar fashion to the role of the *Salone Internazionale del Mobile* in furniture design (Wulfing, 2003, D'Ippolito et al., 2014), I found that events started to become a routine also in the context of the food industry.

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<sup>4</sup> In English, *The Marchesi Code*.

Exhibitions and other types of events have been organized with the final aim of spreading the culture for 'designed' food. I recounted three in total. First, *Macef* organized *Tutto Food* in 2007, an exhibition that attempted to demonstrate how Italian food firms are capable of innovating beyond the 'local tradition' element. More broadly the event aimed at shedding light and further enriching the concept of food design. Another well-established exhibition is *Cibus* in Parma, organized by food producers who have increasingly engaged with a diverse set of themes regarding food design. One of the interviewees, a food designer, admitted that "*the main weaknesses of this event is its location: though Parma is in one of the most known 'food-cities' across the country, the city itself is not well connected with the rest of the world, and this partly hampers a wider recognition*". A third event is *Food design*, taking place on a yearly basis at Eataly (Turin). During this occasion, various projects and prototypes created by modern artists and designers are exhibited (e.g., jewellery made up with sugar and caramel or chocolate-based chandeliers) with the aim of innovating through food design. In short, the event has become lieu for developing traditions as well as innovative research activities. Food and design have merged and become a relevant subject like others (Mastrangelo, 2007). Although the ideal setting would be an international fair where all food firms could participate and share ideas (and know-how), firms' expectations are currently on the *Expo 2015* (in Milan), where a few stands will focus on the themes of food design and related concepts.

## **5. Discussion**

The tradition of Italian design dates back to the mid-twentieth century, a time when craftsmanship, already of very high quality, was incorporated by craftsmen to include styling elements and better meet customers' changing needs. Despite the knowledge base of design has evolved substantially since its craft conception, it was possible to observe how the institutional recognition has followed a path different from that of other professions. Based on the above empirical evidence it is possible to draw some general lessons regarding (i) the mechanisms of professionalization that characterize creative activities and (ii) how the emergence of new professional categories inspired by practice shapes the policies and decision-making of the actors involved.

### **5.1 Professionalization of creativity-based activities**

Since one of the main tasks of a designer is to develop possible future socio-cultural evolutions and formulate new product meanings (Walsh et al., 1992), the knowledge required

to this aim can hardly be formalized. It is developed through a continuous process ranging from the exploitation of experiences and existing skills to the generation of new expertise. This does not entail that “someone who has never worked in that field suddenly gets this marvellous idea” (von Stamm, 2008:2). Creativity relates to a particular body of knowledge that can be either tacit or formalized. The former contributes to express a substantial part of the conceptual processes of making up creativity, whereas the latter can be acquired through university learning and other sources of design-oriented information. Whilst increased professionalization may lead to the establishment of a common ground within which professionals can exert their legitimacy, what constitutes good design is yet to be defined (Hertenstein et al., 2013). Moreover, it should be observed how experts in the field have put efforts in trying and defining the meaning of food design, and clarify how and why it differs from marketing or other types of creative activities. Whilst there might be overlap between the two from an educational point of view (e.g., design courses included in a master of food marketing), the attention is drawn to the substantial difference in terms of impact that the two activities might have in terms of practitioners' skills set and firms' competitive advantage. The direct implication of this is that the current understanding of professions and their role within the broader industrial settings are invested by a new light. A focus on the practices leading to new learning development and transferral as well as the need to define the legitimacy of the professionals regardless of the institutional settings within which they operate seem to represent two key aspects at stake.

The findings have shown how the emergence and subsequent success (confirmed by the increasing number of registered students) of degree and training programmes promoted by both university institutions (e.g., Polytechnic of Milan, Faculty of Gastronomic Sciences in Turin) and post-secondary schools (e.g., Alma School) contributed to raising awareness about the importance of design and innovation in food industries. In particular, these manifestations supported the development of a knowledge base for practitioners in the field and broadened the possibility of additional specializations for industrial designers. The account of Gualtiero Marchesi's experience constitutes a vivid example of how design in the food industry is about aesthetics, that is, new way of preparing and presenting a dish, as well as innovation, that is, generation of a cuisine that is deemed to influence and shape consumers' future tastes. Professionalization emerges as the strategy to support the interest of a specific professional group and, as a result, diffuse innovative practices (Adler and Kwon, 2013).

## **5.2 Emergence of new professional categories: implications for policy and practice**

From the story recounted above it is possible to draw some implications for education policy makers. In particular, by observing early developments in the establishment of a discipline like food design, one can observe the range of knowledge types design impinges on. There is an objective type of knowledge nurtured by educational programmes, but there is also a type of knowledge (*know-how*) that draws on practice-based skills difficult to formalize and transmit. This is the reason why the emergence of a series of training courses promoted by universities (e.g., Polytechnique of Milan, Faculty of Gastronomic Sciences in Turin) has helped gain a wider consensus, witnessed by a rise in the number of registered students. Moreover, the organization of fairs and exhibitions across the country (e.g., *Cibus*) has also supported the dissemination of the concept of design within food industries; these types of events are perceived as occasions for small and medium agro-food producers to interact with end customers and local or national sectoral associations. The findings draw also attention to a more subtle type of knowledge, which is related with the specific industry within which design is practiced. In this, this research coincides with van Aken (2005), who argues that most designers obtain this process knowledge in a craftsman-like manner, i.e., by their own experience and by copying their teachers and peers. In the case of food design, this was the case of the founder of ALMA School, a practitioner who has transferred his know-how by showing, for instance, how to create (design) a new dish. Given that this type of knowledge is likely to remain tacit, teaching and learning methods should account for this element in the development of education programmes. Whilst practice-based teaching modules are diffused in professional high schools or master degree programmes, a step further must be accomplished by institutions the role of which is to acknowledge the validity of such know-how.

With regard to the process of formalization of a knowledge-intensive activity, the case of design shows how the establishment of an association (i.e., ADI in 1956) fostered and supported the emergence of standard practices via different regulating mechanisms (e.g., typology of contracting, foundation of a national register for designers). Yet, the findings highlight a general discontent among designers whose expectations about ADI withholding an influential role have hardly been met. On one hand, ADI seems to play a key role within the process of formal recognition of the profession of designer in a similar fashion to the law or engineering disciplines. On the other hand, the support of ADI is still limited to general issues, such as organizing networking events, instead of more focused activities, such as

improving the legal position of design professionals. It follows that the field would benefit from more explicit initiatives aiming at establishing effective practices or standards within the industry. From this perspective, this research should warn policy-makers, industrialists, and institutions, and motivate them towards closer collaboration for the development of a discipline that could protect the image of 'Made in Italy' and encourage creativity.

The research has also been insightful from the point of view of the professionalization of a knowledge-intensive activity. Although the role of professional associations is weakly perceived, the industry could find a strong basis for development on a set of institutions such as exhibitions, prizes, and trade fairs, which contributed to formalize the knowledge underlying the various design activities (e.g., *Triennial*, *Salone del Mobile*, *Compasso d'Oro*, and *Memphis*). Unlike other fields where the professionalization has undergone the establishment of a professional body or specific entry requirements (Hodgson, 2002), the professionalization of design has been characterized mainly by events that influenced the visibility of professionals. Designers' activity strongly relies on creativity, thus their reputation within the marketplace is crucial to boost and support their credentialism. With particular regard to the case of food design, this process has been shaped not only by institutional actors but also 'creative-minded' individuals, whose role has been crucial in raising awareness. It is this serendipity that excessive attempts to formalize knowledge should be careful not to neglect. Savage (1994) drew attention to the emergence and establishment of a set of routines leading to the professionalization of pharmacy, which however relies on a fairly standardized and codified body of knowledge. The case of design illustrates how the expertise of individual professionals represents in itself a potential source of innovation for firms and the surrounding industry. Within the innovation literature, scholars have developed some understanding of whether, and if so how, product design has undergone a process of professionalization. With a focus on the Finnish context. Valtonen and Ainamo (2008) have attempted to answer the general question 'What kinds of processes have characterized the professionalization of product design?' by considering the theories of professions as a variant of the diffusion of world society in general, and professional models of organization and management in particular. Unlike the Finnish case, the novelty of this study consists of considering the professionalization of the design discipline as the (needed) consequence of its institutionalization as well as the cause for further innovation.

Finally, the findings bring forward some implications for manufacturers. The case of food design witnesses the rising importance of stylistic innovation, whereby goods are purchased

not only for their practical functions but also their meanings. As a result, acts of purchase and consumption reflect proactive efforts to claim a position in the system of social relationships by changing the characteristics of the artefacts that “surround, support, and often mediate human interactions” (Ravasi and Rindova, 2008:270). It follows that food manufacturers should think about their products' aesthetics early on in the production and supply chain. Whilst food innovation in the food industry happens on an incremental basis (Galizzi and Venturini, 1996, Bhaskaran, 2006) and some aspects of innovation depend on the age of the company, company size, and regional economic performance (Avermaete et al., 2003), the change of product meanings through design can be rather radical (Verganti, 2009) and significantly influence consumers' purchasing behaviour.

## **6. Concluding remarks: contribution, limitations and implications for future research**

The current paper sought to contribute current debates on how innovation occurs within creative industries and how the generated value is captured. It did so by focusing on how design-related activities have been employed within the food industry, usually regarded as a low-tech industry and drawing on traditional mechanisms for value generation. This research has illustrated how, when a new professional domain is emerging, different competing forces are at play: at individual level, skill development and personal creativity converge towards new professional categories the educational system can play a key role in acknowledging new professional domains; at professional level, professionals can rely on traditional ways of organizing knowledge (e.g., sectoral associations) as well as more informal, focused initiatives (e.g., events); at institutional level, informal accountability mechanisms emerged for pursuing specific groups' objectives. By complementing the extant literature on the institutional dynamics of innovation and the supporting professionalization mechanisms, this study has brought to light that in between the two levels mentioned above there can emerge practices allowing to transliterate knowledge originating in different spheres and converge towards the same framework. As argued in the paper, a major challenge lies in the 'hard to formalize' body of knowledge characterizing design activities, and more generally creative activities. Usually disciplines act as exclusion mechanisms, and the accreditation to practice is withheld if the organization of the discipline deems that relevant tests have not been passed. It appeared that these principles do not apply to the case of design, and perhaps a new way of conceiving professionalization is needed to address a broader theoretical question: if ideas are hard to formalize, where do they exist? And to what extent would this depend on the specific domain to which knowledge is applied? In the specific case of food design, I hope to

have provided a deeper understanding of how a service-based profession emerges, and what kind of influence design activities have on food firms. The lack of scholarly attention on these issues justifies the exploratory approach of this qualitative research.

This research agenda would interest different scholarships: first, a theory of professionalization of design would benefit the understanding about other types of knowledge-intensive service activities that are increasingly populating modern economies, but of which very little is known in terms of the factors contributing to their establishment as a standalone field; second, this research focus would shed light on the role played by key actors in the context of innovation processes and the wider consequences at industry level. It should be noticed that the paper did not explore the extent to which food innovation impacts firms' decision making in terms of both employability of creative skills and presence of a more institutionalized, professionalized domain. Thus questions such as "What indicators can we use to assess the emergence of a set of professionals (aka disciples)? Would it be sufficient to count the number of graduates from the School?" or "Where would an analysis of the syllabi of the various food universities lead to?" remain unanswered.

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## Appendix A

**Table A.1: List of expert interviewees**

| <b>Interviewee (no. of interviews)</b>     | <b>Activity(ies)</b>  | <b>Role of the informant</b>                   | <b>Description</b>     | <b>Date</b>              |
|--|---|--|------------------------|--------------------------|
| Association for Industrial Design, ADI (3) | Raising awareness and providing avenue for interaction between designers, manufacturing firms, and other actors who operate within the field of design  | President                                      | Face-to-face interview | 15/04/2010               |
| Assarredo (1)                              | Association supporting furniture manufacturing firms  | Specialist in food design                      | Face-to-face interview | 15/05/2008               |
|  |   |  | Phone interview        | 15/07/2010               |
|  |   | Member of the Steering Committee               | Phone interview        | 15/05/2010               |
| Cosmit (1)                                 | Organiser of events related to the furniture industry   | President                                      | Phone interview        | 05/05/2010               |
| Triennial (1)                              | Host of a biannual exhibition and a series of other design-related events   | President                                      | Face-to-face interview | 29/04/2010               |
| Webmobili (3)                              | Private company significantly supported by Federmobili (the association of Italian furniture retailers) providing a search service regarding furniture manufacturers and retailers across the country | President                                      | Face-to-face interview | 25/07/2009               |
|  |   |  |                        | 16/12/2009               |
|  |   |  |                        | 28/04/2010               |
| Politecnico di Milano (1)                  | University where Industrial Design was first established as an undergraduate programme (1993)   | Director of the Board of Education (1993-2010) | Face-to-face interview | 25/10/2011<br>18/01/2012 |
| SDI First interviewee (1)                  | Design research centre attached to the Faculty of Industrial Design of the Politecnico di Milano  | Researcher 1<br>Researcher 2                   | Face-to-face interview | 18/03/2008               |
|  |   |  | Face-to-face interview | 14/05/2008               |
|  |   |  | Phone interview        | 18/04/2010               |
| ALMA School (1)                            | School for Italian cuisine located in a major area for food production in Italy (Parma and surroundings)  | Director of teaching and learning              | Face-to-face interview | 04/12/2008               |
| <i>(Total: 14 interviews)</i>              |   |  |                        |                          |

**Table A.2: List of interviewees with design professionals**

| <b>Interviewee</b>            | <b>Location</b> | <b>Size</b> | <b>Core business</b>                              | <b>Sector</b>  | <b>Description</b> | <b>Date</b> |
|-------------------------------|-----------------|-------------|---|--|--------------------|-------------|
| Designer E1                   | Reggio Emilia   | 1           | Industrial design                                 | Home furnishing, stationery, agriculture, farm, plastic injection      | Phone interview    | 13/06/2008  |
| Designer G1                   | Rome            | 3           | Industrial design, graphic design                 | n/a  | Phone interview    | 30/06/2008  |
| Designer G2                   | Rome            | 1           | Product design                                    | Home appliances, motorcycles, consumer electronics, pharmacy, ceramics | Phone interview    | 01/07/2008  |
| Designer H1                   | Genoa           | 1           | Interior design, furniture design                 | Nautical   | Phone interview    | 10/06/2008  |
| Designer I4                   | Milan           | 5           | Interior design, exhibition design product design | n/a  | Phone interview    | 13/06/2008  |
| Designer I5                   | Milan           | 5           | Interior design                                   | Lighting, kitchen furniture, office furniture                          | Phone interview    | 27/06/2008  |
| Designer I6                   | Bergamo         | 5           | Product design (redcoration ex-novo), web design  | Construction, lighting   | Phone interview    | 26/06/2008  |
| Designer I9                   | Milan           | 6           | Interior design, product design, graphic design   | Food, furniture, others  | Phone interview    | 12/06/2008  |
| Designer I11                  | Milan           | 13          | Product design                                    | Electronics, furniture   | Phone interview    | 13/06/2008  |
| Designer J2                   | Pesaro          | 1           | Contract design                                   | Hotel furniture  | Phone interview    | 27/06/2008  |
| Designer L1                   | Turin           | 17          | Industrial design                                 | Tourism  | Phone interview    | 01/07/2008  |
| Designer L3                   | Cuneo           | 10          | Interior design                                   | Retail, hotelries, pharmacy  | Phone interview    | 30/06/2008  |
| Designer L4                   | Asti            | 5           | Interior design, industrial design                | Home appliances  |                    |             |
| Designer L5                   | Novara          | 3           | Product design, engineering                       | Faucets, bathroom fittings, showers, household goods, toys             | Phone interview    | 03/07/2008  |
| Designer P1                   | Pisa            | 5           | Product design, redecoration                      | Construction   | Phone interview    | 17/06/2008  |
| Designer P2                   | Florence        | 1           | Product design, industrial design                 | Medical devices  | Phone interview    | 26/06/2008  |
| Designer T3                   | Vicenza         | 5           | Industrial design, product design                 | Furniture, plastic materials   | Phone interview    | 16/06/2008  |
| <i>(Total: 17 interviews)</i> |                 |             |   |  |                    |             |

## **Exhibit A.1: Interviews with design experts**

### ***General questions***

- How would you describe the dynamics underpinning the design discipline?
- What skills and/or competencies would you deem necessary for a professional?
- What does the institutional role of ADI consist of?
- What was the mission of the Association at its inception? Has it changed at all since then? If so, how?

### ***Questions specifically for the President of ADI***

- What does the institutional role of ADI consist of?
- What was the mission of the Association at its inception? Has it changed at all since then? If so, how?
- Could you describe the needs of the registered members, and designers in particular? Have they changed over time?
- Is there any specific requirement to register as a member of ADI (e.g., qualification, turnover)? Please provide details.
- What is the nature, frequency and object of interaction with home furnishing manufactures and/or other sector-specific institutions?

### ***Questions specifically for the food design expert within ADI***

- Can you describe the process of defining 'food design' in the context of ADI?
- With regard to *The Manifest of Food Design* what do you think will be the dynamics of development, and its implications?
- Can you tell something regarding whether, and if so how, universities and other education institutions are trying to incorporate food discipline in their curricula?
- What do you think of firms? Do you think they are ready?

### ***Questions specifically for the President of Triennial***

- What were the objectives that led to the initiation of this exhibition?
- Has the role of Triennial Foundation changed since its inception? How has it influenced the development of the design industry?
- Which activities are undertaken by the committee within the Triennial?
- Who supports financially events and exhibitions organised by Triennial (e.g., government, external institutions, manufacturing sectors, etc.)?

## **Interviews with design professionals**

### ***About professionalisation***

- Is your studio, or you / any of your collaborators, a registered member of ADI?
- What benefits do you derive from been an ADI registered (e.g., networking, access to events, increased visibility)?
- What incentives are there to support the activity of these institutions?