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### **Contracting and Negotiation Processes in the IST Sector (Region of Aragón)**



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**Short Description:** This report summarizes the research activities carried out by ITA and UniZar within the OPAALS work package No. 6. It describes the current research stage, thereby focusing on two main issues: (1) the collection, analysis and systematization of information on negotiation and contract processes in the IST-Branch in Aragón; and (2) the modelling of the content structure of IST-service contracts, which is primarily oriented towards semantic description of contracts, as a basis for dynamic service composition.

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# 1 Introduction

This Milestone summarizes the research activities carried out by ITA and UniZar within the OPAALS Work Package No. 6.

According to the project work plan, ITA and UniZar are expected to deliver a report about negotiation processes between companies in a specific sector. The research field which has been finally selected for analysis is the IST sector in the Region of Aragón.

The planned report should firstly address contractual relations and agreements between companies, as well as the means they resort to or the practices they follow for dispute resolution. Furthermore, this research task should include a semantic description of IST contracts, which is oriented towards developing dynamic service composition (hereinafter, DSC)<sup>1</sup> and automated contracting processes schemes. This may be seen as an important aspect in digital ecosystems evolved the business domain.

More concretely, the ITA and UniZar research planning was distributed into the following tasks:

- Task 1.1 Contacting enterprises and collection of the contractual material constituting the research object.
- Task 1.2 Description of contracts at the semantic level (UniZar) and DSC-oriented analysis of negotiation and discovering protocols, as well as of the contracts described (ITA).
- Task 1.3 Creation of ontologies in order to store legal data (UniZar).
- Task 1.4 Analysis on how to discover a service with specific contract details (ITA).
- Task 1.5 Analysis of negotiation models and contracting processes (contracts are not necessarily fixed but may be negotiated in terms of price, quantity, deployment time...)

The foregoing tasks and activities build up the context within which this Milestone has been prepared.

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<sup>1</sup> By DSC we primarily mean composition at the semantic level, since automatic composition at the syntactical level of the interfaces is a very difficult problem that presupposes either the adherence to a common interface standard for any kind of service (not realistic), or the automatic generation of glue logic (very challenging task).

## 2 Objectives and Scope of this Milestone

This Milestone's objective is twofold. On the one hand, it aims to give an account of the research activities undertaken by ITA and UniZar within the Work Package No. 6. On the other, the document reports on the ongoing research tasks, as well as on the next steps and forthcoming research activities. Hence it is a network-internal paper contributing to monitor the research development.

The document, however, does not only describe the current research stage. It must be seen also as a result of the research work itself. As a research milestone, it constitutes the first basis for drafting the final deliverable on negotiation processes and semantic contract description for DSC (due by month 34). Therefore, instead of merely listing the completed activities and tasks, we have tried to integrate them into the scheme of that final deliverable.

Accordingly, the scope of this Milestone covers two major issues (which are connected in turn with the two research tasks of Work Package No. 6 assigned to ITA and UniZar). These issues are:

- Collection, systematisation and presentation of relevant i. e. negotiational and contractual information on the IST sector in Aragón. This information (which has been obtained from collected documentation, interviews and quest answers) makes up the fundamental material for analysing negotiation and contracting processes in the selected sector, which will be first object of the final deliverable.
- Contract analysis and semantic description oriented to create ontologies for DSC. The contract analysis is commenced, but still ongoing. Advances in this regard are up to now limited to modelling content structure of two IT-service contracts, namely those of web development and housing.

As for the research period covered by this Milestone, it does report on tasks and activities that were launched or completed from December 1<sup>st</sup> 2007 to April 30<sup>th</sup> 2008. Yet a brief remark is in order here. Despite of the fact that ITA and UniZar officially joined OPAALS and commenced their research work in December 2007, some bureaucratic uncertainties regarding the Network (Phase II) have slowed it down in the beginnings, so that most activities were actually carried out from February 1<sup>st</sup> 2008, when the Network progress was definitively clarified and confirmed.

### 3 Methodology

This section briefly describes the methodological patterns which have been followed during this research stage.

#### 3.1 Branch Selection: IST in Aragón

When launching the research tasks, two business domains were considered: the tourist sector and the IST sector. The former was attractive because of its major import in the region, not to mention that it has also proven as a promising research field during the DBE Project.<sup>2</sup> Despite of that, we found it more meaningful to explore the IST sector, which has been finally selected, due to three reasons. First, both the ITA and the Advanced Lab for Legal-Business Applications (UniZar) have established in recent years close connections and contacts with many companies or actors involved in the IST branch in Aragón, gaining thereby fruitful insights into it, which was deemed as an advantage point with regard to the OPAALS Network. Secondly, the IT sector is not only accorded a strategic import for the region, but it is regarded furthermore as a critical priority within the regional government R+D+I planning. Finally, the choice of the IST sector makes it easier to obtain comparable (say, cross-national) research results.

As it has been said, this is a strategic sector in our region and then it is of high interest for the Regional Government, and in particular, it is of high interest of the Department in the Regional Government which has been supporting the DBE Project research since it started. Additionally, thanks to the field research, it will help mainly to micro-enterprises and small enterprises to improve their contracts. It has been detected that SMEs in this sector need to improve their knowledge in this field and they start to feel that it is more important than what they have traditionally considered. Indeed, this is one of the main returns SMEs will obtain for participating in this project.

#### 3.2 Branch Analysis and Selection of Companies

After selecting the research field and taking advantage of dedicated ITA and UniZar knowledge bases, a first prospective, initial survey was conducted on the web, which allowed for a comprehensive overview of the regional IST sector. Relevant data concerning the service and product offers were collected in order to pre-select a representative number of companies to be contacted and invited to participate in the research. All this served as well to properly define and target the collection of information (documentation, quests and interviews).

It is clear that it is not easy to involve SMEs in a research project without funding and additionally to get this kind of key information from them. On one hand, we

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<sup>2</sup> See J. Val, «The experience of the Aragon Region as a Catalyst of Digital Business Ecosystems», in: F. Nachira, A. Nicolai and P. Dini, *Digital Business Ecosystems*, Luxemburg, 2007, pp. 167-169.

have the support from the Regional Government to perform this activity, so they trust us to give us that information. On the other hand, we have offered them something interesting as consideration for their participation in the project. At the same time we perform the on-field research; one result of the research is the possible improvements of their contracts and the detection of possible mistakes, specially for the micro and small enterprises. Indeed, the Regional Government is very interested in this activity since companies of this kind do not pay much attention to these issues until they do not have problems with it. Obviously, it is of high value if they are able to anticipate these problems before they happen.

### 3.3 Collection of Information and Field Work

A prior requirement for performing the research tasks is collecting extensive and in-depth information about IST contracting and negotiation processes. To this purpose, two sources of information were chosen: documentation and interviews.

- Collection of documentation<sup>3</sup>

Selected firms were first required to provide a variety of documents, ranging from fact sheets or product or service offers and presentations to written agreements and model contracts used in practice. Information and documentation publicly available on the companies websites was also taken into account.

A list of contacted firms and documentation may be found in ANNEX I. As it may be observed, 17 companies were selected and contacted and 14 of them have provided very detailed information. The project was explained to all of them as a first step to get their involvement.

- Interviews

By studying the documental material, enough information was gathered to prepare and target the interviews with the management staff of the selected companies. The aim of the interviews is to detect and discover relevant aspects of negotiation and contracting processes, which makes it possible to sketch a general description of the features of this business domain. An especial focus is set on those normative elements which, being of informal character, cannot be inferred from the collected documentation. This implicit, somewhat hidden “legal” knowledge on the business domain is expected to reveal customary standards and self-regulative trends in the IST sector.<sup>4</sup> Having regard to that aim, we have opted for the methodology of semi-structured interviews with an average duration of one hour. By this date, interviews have been conducted with five companies.<sup>5</sup>

The model-quest used as a basis for the semi-structures interviews can be found in ANNEX II (please note that it is a model: depending on each company’s specific activities, dedicated questions were discussed).

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<sup>3</sup> Even though the scheduled research progress was reverse (see Section 1), we decided to collect and analyze the documentation first, in order to clear the ground for targeting the interviews.

<sup>4</sup> See OPAALS Work Packages 6 and 12.

<sup>5</sup> Apser, Cierzo Development, Iritec, Izanet, Net2U. The interview process is still in progress.

## 4 Negotiation and Contracting Processes

This section presents an overall description of the selected business domain.<sup>6</sup>

### 4.1 An Introductory Note on the IST Branch in Aragón

It is difficult to define accurately the boundaries of the IST sector (in Aragón), for it involves a wide range of public and private actors or stakeholders (research and educational institutions, public administrations, private companies...), which are in turn concerned with a huge variety of social and commercial activities.<sup>7</sup> Being focused on B2B relations, this report is confined to IST companies. In recent years, however, the number of companies shows in Aragón, as in other European regions, an extraordinary growth (and the same goes for their commercial interests). Official records are lacking in this respect, but one may estimate that there are around three hundred IST-related companies based in Aragón.<sup>8</sup>

### 4.2 Contracts and Services

The IST business domain is probably one of the most evolving and dynamic social areas nowadays. As a consequence, there exists a **plenty of contract modalities** directly related to IST services or products. They range from software development or application service providing up to comprehensive online marketing strategies. Further instances of such a variety could be web tools and solutions development; service collaboration agreements, assistance, maintenance and training contracts; integral IST services contracts; software sales, licensing and distribution, including escrow and IPR agreements of any sort; web domain register and related contracts; hosting, housing and data storage contracts; information security services; content providing; hardware sales; social networking and web 2.0 services; IST consulting; as well as the most diverse forms of outsourcing. Object, parties, duration, scope, conditions and scope may significantly vary from one contract type to another. When it comes to analyze the contracting processes, handling such a variety would be certainly unworkable. Thus, a selection of contracting areas or topics was made according to the **criterion of recurrence** (or representativeness) in the region. The following general contracting areas were selected:

- Web and Software Development
- Hosting and Housing
- IST Integral Management

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<sup>6</sup> Hereby some descriptive categories and structures follow the IST-Contract approach, which makes it easier to compare results and findings in both projects. See: *IST-Contract Project Deliverable No. 6.1* at: [www.ist-contract.org](http://www.ist-contract.org)

<sup>7</sup> Further details in: Government of Aragón, *I Director Plan for the IS Development in Aragón* (2006), as well as *2007 Report on the IST sector*, both available at [www.observatorioaragones.org](http://www.observatorioaragones.org)

<sup>8</sup> See Aragonese Observatory for the Information Society: [www.observatorioaragones.org](http://www.observatorioaragones.org)

This gives us a simple **typology of contracting areas** which is easy to manage for analytical purposes. A fourth type was also initially considered: the IST consulting contracts, but we finally left it aside, for it may be very different in each particular case and therefore unsuitable for a general semantic description.

Nonetheless, from the point of view of both business and legal processes, the three selected contracting areas diverge in the nature of the services involved. Web and software developments appear as **scheduled services**, while web management and storage solutions (hosting, housing and the like) are **continuous services**. Systems or networks management contracts are essentially regarded as continuous service contracts, but they may include scheduled services as well.

Another interesting point is the intertwinement of these contracts. IST contractual relationships (be they formalised or not) may comprise very different agreements. In other words, IST-related services open the possibility of making very **complex contracts** from the content perspective. For instance, the development of web tools and solutions is often negotiated or contracted together with data storage solutions (e.g. hosting) and even with IST management services. Thus it may well be the case that multiple distinct services are agreed on within the same contract, so that it becomes difficult to clearly delimitate them.

### 4.3 Actors and Scenarios (Overview)

Actors are business entities or partners engaged in IST negotiation and contracting processes. In every process there are at least two actors, namely one client<sup>9</sup> and one provider. This constitutes the first and **basic scenario**.

#### ▪ Client

The client is the company seeking for a certain IST product or service in order to rationalize, improve or otherwise contribute to its business. In the normal case, clients behave strategically and try to establish a beneficial agreement (i.e. low costs for better conditions). When contracting, legally-entitled staff, typically the manager, acts on behalf of the company. Still, in the region upon focus clients are, to a great extent, small and medium enterprises, even micro-enterprises (less than five employees): SME's make up the 90% of the registered companies in Aragón, and the largest corporations based or operating in the region are used to engage their IST centralised services. Given this client profile, it is usual that the person responsible for negotiating contracts plays simultaneously several organizational roles. This is to say that the manager acts as commercial agent, technical and even legal advisor (see § 4.5). Actually, most problems in the contract definition and deployment may be connected with that.

#### ▪ Provider

The IST provider is the company which offers a certain IST product or service. It is also represented by management staff entitled to conclude contracts related to the services provided. Within the provider structure, several organizational units or departments must be distinguished which are responsible for carrying out the

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<sup>9</sup> We avoid the term “customer” because under Spanish law it refers to persons, not companies.



contracting process and the client relationship. Yet IST companies in Aragón are rather small or medium-sized, so that it is often the case that there exists no strict separation between different functional areas.

In addition to this simple scenario, a bit more complicated one will be considered: **subcontracting**. Here the client subscribes a contract with the provider, which in turn engage one or more subcontractors for carrying out the project or delivering the service.

#### ▪ Subcontractor

The IST subcontractor is the company which provides a certain IST service to a company acting itself as provider of the client (being this necessary to meet the client needs as laid down in the contract). There are many different modalities of subcontracting, but in the IST sector frequent cases concern particular aspects of web and software development projects (e.g. graphic design, programming or analysis tasks, IPR issues...), systems and data storage and in-house technical assistance in systems management. When analysing the legal implications of this business domain, the essential question is how the subcontract does get integrated into the frame contract. In this regard it is fruitful to distinguish between **opaque and transparent subcontracting**, depending on whether it has been explicitly agreed on in the contract.

A final remark must be made concerning the participation of public administrations as clients in the IST domain. When a public institution acts as a client, contracting processes may be quite different from the B2B relationships. The major difference lays probably on the degree of formalisation.

## 4.4 Formalisation and Computer-Assisted Contracting

IST negotiation and contracting processes in Aragón are overwhelmingly human-centric and carried out through conventional means.<sup>10</sup> The formalisation level of these processes is expected to be very different depending on contract parties and contract subjects. It is likely that some elements of the service or even entire services are governed by informal agreements and do not generate legal documents as such (for instance, low budgeted web development projects). Nevertheless, two trends can be identified in advance which point to an increasingly formalisation degree, even in a SME-structured business domain such as the IST sector in Aragón. On the one hand, legal and self-regulative IST norms tend to impose formalization duties on the actors, which may ease the modelling of contractual relationships. A good instance for this is the data processor mandatory agreement as established by Spanish Data Protection Act,<sup>11</sup> which has significantly

<sup>10</sup> Only two of the providers contacted have implemented on-line contracting tools, namely Gabilos (software sales and distribution) and Embou (Internet access and software and hardware sales).

<sup>11</sup> See Article 12.2 of the Spanish Data Protection Act: «Processing on behalf of third parties shall be regulated in a contract (...), it being expressly laid down that the processor shall process the data only in accordance with the instructions of the controller, shall not apply or use them for a purpose other than that set out in the said contract, and shall not communicate them to other persons even for their preservation. The contract shall also set out the security measures referred to in Article 9 of this Law, which the processor is obliged to implement»

contributed to a higher contractual formalization in the sector, since many IST services may imply access to or processing of personal data under responsibility of the client (as data controller). On the other hand, IST providers, subcontractors and clients nowadays tend to systematically control and monitor the service quality. All actors are more and more resorting to specific methodologies or tools to rationalize their business processes. Besides BPM, ERP, BI or CRM tools, ITIL and CMMI seem to be the most used methodologies in the sector. These may be considered as computer-assisted contracting tools, for they are used for information gathering and for monitoring obligations and conditions, as well as for negotiation, management and client relationship purposes. This suggests that IST agreements are a promising field for contracting process automation.

## 4.5 Resources

In order to make this domain description operative, we must look at the resources involved. These are of two kinds, namely human and organizational resources, and technical resources (or systems).

### ■ Human and organizational resources<sup>12</sup>

*Service Manager.* The service manager is the role at the client which is accorded the responsibility of negotiating and establishing contracts with providers, as well as for signing partial acceptance proofs or documents when necessary (e.g. in web or software development services).

*Account Manager.* On the provider's side, the account manager is the role which is responsible for managing individual clients from the very beginning of the relationships. It may share the client relationships management tasks with the project manager (e.g., he or she may consult a project manager before agreeing obligations). This role is assumed in most cases by the commercial department.

*Project Manager.* When a scheduled service is concerned, the project manager is the role at the provider which is in charge of directing the project development as agreed in the contract. In large companies, the manager usually is not the same person who negotiated and established the contract, whereas in small companies, the same person may act simultaneously as account and project manager.

*Legal or contractual advisor.* In some cases, the clauses drafting and reviewing appears as a separate tasks in the negotiation and contracting process. Still, this presupposes companies (client, providers or subcontractors) of a given size and with a relatively complex internal structure.

### ■ Systems

*Desk tools, digital repositories and document management systems.* Regardless of the company size, IST contracting processes are always assisted by some kind of document management system, which is mainly used for storing detailed contract, project and offer templates. Such systems may be pretty simple (e.g. those based

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<sup>12</sup> Given the small size of IST provider companies in Aragón, many of the following roles may be undertaken (i.e. organizational units can be made up) by only one person.

on usual desk applications), but sometimes special document management tools are used to store electronic documents and scanned paper documents.

*BI, EPR and CRM systems.* Customer relationship management systems, business intelligence or electronic resource planning tools are becoming widespread in IST companies. They are used to track any relevant information on the client, which includes information generated in negotiation and contracting processes.

*Development tools and environments.* In case of web or software development, the provider uses dedicated development tools and environments, as well as some other mechanisms (such as code and impact analyzers) to improve the quality of the service. These tools are used by developers and project managers to obtain information as a base for engineering or programming decisions.

*BPM tools.* Advanced or leading IST actors may use special tools for business process management, which help them to improve planning activities as well as to monitor the performance of processes.

## 4.6 Lifecycle: Stages in the Contracting Process

Contracting lifecycles may be approached from many different perspectives. Yet, this general overview of the sector must account for a large variety of contracting areas and objects, so that a business-oriented approach would not be meaningful. Instead, a legal approach has been preferred. From this point of view, three stages can be defined in each contracting process: the pre-contractual stage (negotiation), the contractual stage, and the conflict management or dispute resolution stage.

### ▪ Pre-contractual stage (negotiation)

The pre-contractual stage is concerned with defining and matching client's needs and provider's solutions. Even though its legal implications are few, this phase is particularly important in order to keep record of the agreement-building process, as well as to gather evidence and proof elements which can be resorted to in case of conflict. The pre-contractual phase may be split into several moments –not all of them do apply to every process:

*Generic offers and first contact* – The process normally begins with a generic product or service offer on the provider's side, including commercial advertising, which is mainly done via web; clients usually contact providers upon this basis, but sometimes contacts can be directly established.

*Definition of client's requirements or needs* – After first contacts, clients present their requirements or needs to providers and both parties try to define them as accurately as possible. In some IST contracting processes, such as software or web development services, this stage necessarily covers a number of face-to-face meetings, whereas in other cases it is carried out by phone or mail.

*Budgeted offer* – With the information gathered in the previous stage, providers do elaborate a budgeted offer attempting to match the client's needs.

*Negotiation* – Once clients receive the budgeted offer, it is often the case that they go on negotiating and bargaining over it, addressing new aspects or reconsidering

initial demands, whereby service price, deployment or delivery dates and scope are the major issues at stake. Nevertheless, this will depend on the type of product or service. Actually, in many cases providers do not work on request, but with fixed offers or predefined service packages, which leaves no room for negotiation.

*Offer acceptance* – There exists several options for conveying the acceptance (via e-mail, fax or even by phone), but the most used one is to sign up and submit back to the provider an ‘acceptance sheet’, which is normally annexed to the budgeted offer. The period of validity is normally laid down in the offer, but it does vary depending on the type of contract or service.

Due to the particular features of the IST branch, a general duty of fair information and advising ought to be fulfilled by the provider. Knowledge and competence on technical issues can not be taken for granted on the client’s side, and this must be compensated by the provider; otherwise it is not possible to achieve an appropriate balance between the parties. Such a duty derives from the *bona fide* (‘good faith’) general contracting principle and is expected to govern the whole contract process.

#### ▪ Contractual stage: contract drafting and structure

Apart from informal trends in the IST sector, the assessment of documentation collected suggests that the contractual stage is quite complex from the legal point of view. Three major reasons may be put forward to explain this. Firstly, contracting elements (ranging from general terms, offers, budgets up to contracts and written or unwritten agreements) are mostly interrelated in a non-systematic way. Up to now, one of the problems detected is precisely the ‘spontaneous’ mix of documents governing the contractual relationship. Such a mix turns out to be difficult to handle in legal terms –for instance, some contracts are openly taken to be automatically modified when changes in online general terms and offers are introduced. Secondly, actors do lay emphasis on the service or product budgeted offer, rather than on the contract itself. This implies that in many cases no contract is explicitly concluded and performed, so that important contract conditions and clauses must be inferred from other formal or informal elements. When contracts are formalized, clause-drafting is sometimes not perceived as a crucial issue, and models and templates are filled without adaptations. There are also general terms of conditions applicable to the product or service contracting, which makes up a bulk of documents which may be mutually inconsistent. Furthermore, a proper negotiation on contract clauses and terms does not normally take place, for providers do resort to fixed conditions and general terms. Thirdly, contracts are not always drafted or amended by legal experts with long-lasting experience in the IST sector, which may provoke outstanding structure and drafting problems in terms of legal quality. Contributing to solve or minimize this problem can be seen as an outcome of the ITA and UniZar research tasks.

#### ▪ Conflict management and dispute resolution

Clients and providers often agree on conflict management and dispute resolution mechanisms to deal with the problems arose during contract deployment. There are three options for this: internal conflict management, alternative dispute resolution and courts. In the first case, the parties explicitly agree on avoiding external agents in order to tackle interpretation or compliance problems, so that the parties commit themselves to make efforts for settling negotiated and friendly solutions. Alternative

dispute resolution schemes (ADR, ODR) have become increasingly important in the IST sector, especially as far as IPR issues are concerned. However, according to the documentation collected, this option is not widespread in the region upon focus. In Aragón, contract parties are rather used to solve disputes before courts.

One might state, all in all, that IST contracting processes in Aragón are governed both by explicit contractual agreements and unwritten or informal mechanisms. This poses the problem of which rules, whether the formal or the informal ones, should be modelled and implemented by an automated contracting system. This questions points to a weakness in some projects addressing the automatization of contracting and negotiation processes, since they merely focus on formal clauses. OPAALS, on the contrary, is interested in living law. Therefore further research is needed in order to clarify what rules do apply in practice and how they are interpreted.

## 5 Case Study I: Web Solutions Development

This section shortly describes web development contracting processes.<sup>13</sup>

### 5.1 Domain Description

The following elements are involved in this contracting area:

- Services (contract object)

Web development (which may include software development as well) is one of the most demanded and provided services in the IST branch. This service entails some basic contents, which are normally divided into two parts: web design and a web development. But it may be also connected with a huge diversity of Internet-related projects and solutions, ranging from hosting services or corporate intranet building to web 2.0 services, such as search engine optimization (SEO), social media optimization (SMO) or cyber-marketing strategies.

- Scenario (contract parties and related actors)

Even though some projects are developed within a simple scenario (one client and one provider), usual operations involve any sort of subcontracting. In most cases, provider companies engage only one subcontractor in each project for carrying out some specific design, analysis or programming tasks, but eventually the whole project may be subcontracted. Subcontracting modalities diverge from one project to another, and both opaque and transparent contracting is resorted to. Banks or similar financial institutions do intervene in all contracting processes for payment purposes.

- Human resources (or roles within the contracting process)

As for the human resources taking part in contracting processes, we have find out different constellations and denominations, since it depends on each provider's internal structure. Anyhow, typical roles are:

- Commercial or sales department – This organizational unit is responsible for client relationships and early negotiation steps. Afterwards, and during the whole project life, commercial staff undertakes the role of account or contract manager
- Project or technical management department – As a technical-profiled unit, it is responsible for taking requirements from clients and, on this basis, developing the web solution (design aspects are normally subcontracted). During the project life, it shares responsibilities with account managers.
- Consulting department – It can be in charge of budget drafting, and sometimes operates at the same time as business consulting unit in connection with the previous units.

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<sup>13</sup> Please note that this is a work in progress, so that we have confined ourselves to highlight some interview findings, which can be relevant for modelling purposes or for describing socio-empirical conditions which may hinder or facilitate contract automatization in the IST sector.

- Management and legal-business department – It may exist a dedicated legal and management unit, which is responsible for administrative, contracting and invoicing issues. It only appears in large companies.
- Systems (IT resources used in the contracting process)
 

The following IT resources are used in the contracting process:

  - CRM and ERP – This kind of tools are normally resorted to for management ends, although not all the companies make use of them. When it comes to large or important projects, an intranet (accessible by clients) may be used for project management purposes.
  - Software environments – During the process, project or service management software, pre-exploitation and development environments are normally used.
  - Digital repositories – They contain offer, budget, project and contract templates. In this contracting area, it is often the case that desk applications are used for this purpose.

## 5.2 Contracts

When addressing the modelling of web development contracts, the first goal we pursued was to represent the contract structures on the content level. Templates were expected to meet some criteria: they should be representative, operational (neither too simple nor too complex), model-ready (if possible) and mutually comparable (i.e. structures of different services should not diverge to a large extent one from another). More than twenty (20) legally-binding documents were analyzed in this stage, comprising mainly budgeted offers (which usually include legal clauses) and contracts.

As legal documents, contracts always show any sort of structure. Its content is normally organized according to both legal and technical criteria and traditions. Our task, however, does not finish in merely describing this structure, but also entails a proposal for a better systematization. Depending on the instances analyzed, we have to find out whether or not all contracts can be reduced to one single model, what types of clauses are deemed more important (critical clauses) than others, and so on. In this early research phase, a fruitful structure-giving pattern was based on differentiating three types of clauses: those which are typical for legal contracts in general, for IST-related contracts (such those regulating IPR or data protection issues) and for web development contracts in particular. At this moment, further distinctions of clauses modalities and levels are being discussed (for example, conditional / non-conditional clauses, principle clauses, power-conferring clauses...). Besides, a classification according to the practical relevance of the clauses should be integrated into the templates in order to face the “formal-informal regulation” problem. All this must be still defined in the light of the interviews findings: contracting difficulties are expected to reveal what are the important clauses and lead to better classifications.

Up to now, we encountered three major problems as to contract modelling. The first one concerns its scope: we do not limit the analysis to “service-conditions” (say, the contract object), but envisage the whole content structure. Yet taking

into account all possible clauses would have rendered templates unsuitable for modelling. Thus, some minor, company-specific clauses have been left aside. The second problem was that many clauses do not have content values which can be predicted in advance. We opted for a blank field in that case. Thirdly, as it has been mentioned, we found a number of legal quality problems or even deficits (systematic imperfections, contract-dressing, redundancies, omission of legally compulsory clauses and so on). We tried therefore to achieve an improvement of legal quality as well as to convey it into the templates.

A detailed structure of web development contracts may be found in ANNEX III.

### 5.3 Contracting and Negotiating Processes

Although the interviews transcriptions are still under analysis, some relevant findings may be already underlined.

- Contacts and negotiation between clients and providers do take place normally through conventional means (phone, e-mail and personal meetings in most cases), but legally-relevant documents (budgeted offer and contract) always need the client's written approval. Interviewed managers would see automated contracting systems as a highly positive advance, but recognize cultural and practical difficulties as for its implementation.
- Apart from some simple, delivery-ready web services (which may be offered as fixed products), all projects are customized. Thereby a proper definition of clients' needs and requirements seems to be the greatest problem, affecting both design and development. Managers think, in this regard, that it would make sense that contracting systems allow for some kind of pre-view utilities (e.g. sketches of the web project).
- In the negotiation stage, clients are mostly interested in web functionalities, but negotiations on price do not take place in many cases, for services are offered on a work-hour basis.
- During the project, it is usual that clients try to amend or otherwise modify the service parameters (change of request). In practice, however, most changes are finally not implemented. Parties are subject to scheduled milestones and the projects advances only after partial acceptance proofs by the client. As a change requires a new budget, clients abandon their claims because of the cost increase or deployment-time extension.
- During the contract execution, the most frequent difficulties providers find are delays in making materials available which are necessary for developing the project according to the contracted work-plan. Even though penalty clauses are usually agreed on, these are not resorted to in practice (the same goes for validity deadlines in budgeted offers). A kind of implicit flexibility clause in complying with time deadlines does apply (within reasonableness).
- As for conflict management and dispute resolution, the overwhelming contract practice points to court-based mechanisms. Yet provider companies in the IST sector declare not to have any serious dispute concerning contract fulfilment (at most they may have payment problems, but even that is seldom).



## 6 Case Study II: Hosting

This section describes the major features of the contracting processes related to systems and data storage services.<sup>14</sup>

### 5.1 Domain Description

*Under elaboration*

### 5.2 Contracts

In broad terms, hosting contracts show the same problems as web development services. According to the documentation analysis, some issues are emphasized by the contract parties.

- Hosting services, in contrast to web development, are legally conceived as contracts to which clients may only adhere or not ('adhesion contracts'), that is, service terms and conditions are not negotiated. Instead, providers define a number of 'hosting packages' trying to match in advance the needs of different client profiles.
- Service availability, bandwidth, storage capacity, security and backup utilities and technical assistance seem to be the most significant aspects in this contract. Nonetheless, in view of their detailed drafting, clauses on provider liability limitations and exclusions play the leading role in these contracts.
- Being typical for IST contracts, liability issues become extremely important in hosting services, in special as far as content liability is concerned.
- Relevant deficiencies were found out with respect to data protection issues in housing contracts. Providers normally operate as personal data processors on behalf of their clients and, as mentioned, there are some due clauses according to Spanish law. Still, some of this clauses are missing in the contracts analyzed, which is probably because of lacking legal (data protection law) expertise on provider's side.

A detailed content structure of hosting contracts may be found in ANNEX IV.

### 5.3 Contracting and Negotiating Processes

*Under elaboration*

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<sup>14</sup> Please note that this is a work in progress. This section is concerned only with hosting services (housing and data centre services will be addressed in forthcoming research phases). As no specific interviews have been made yet in this case, we will just refer to contract contents.

## 7 Research Synergies: OPAALS & DE Cluster

Needless to mention, that all the projects involved in the Digital Ecosystems Cluster<sup>15</sup> have a direct connection with OPAALS. Still, some of them show clearly converging research interests, in special with the tasks carried out by ITA and UniZar. The best example for this is the IST-Contract Project.<sup>16</sup> Its main goal is to develop frameworks, components and tools which make it possible to model, build, verify and monitor distributed electronic business systems. This is envisaged on the basis of dynamically generated, cross-organisational contracts underpinning formal descriptions of the expected behaviours of concrete services and of the system as a whole. The project's objective comprises also to develop systems capable of specify electronic B2B interactions in legally-binding or contractual terms; to dynamically establish and manage contracts at runtime, as well as to apply formal verification techniques to sets of contracts within a digital business environment; and to apply monitoring techniques to contract implementation in order to increase business trust in e-business infrastructures.

In view of these objectives, the IST-Contract Project opens a promising field for research synergies and rises occasion to a fruitful collaboration in order to gain deeper insights into the digital ecosystems socio-legal implications. Bearing this idea in mind, a prospective assessment and study of this collaboration was made from the OPAALS point of view. The major conclusions may be summarized as follows. While OPAALS is centred in modelling contracts and dynamic service composition, IST-Contract rather focuses on contract monitoring issues, which leads it to leave aside all contract parameters which are not understandable and manageable by a computational system. IST-Contract guiding vision is to define a contract as a set of obligations and conditions, mostly regarding time and price, so that, for instance, a given delay in fulfilling orders or requirements can be automatically bargained against price reductions (or it may even be interpreted by the system as breaching or voiding the contract), as the system monitors all the messages interchanged (via web-service) and enables to see in real time the execution of the contract. For this general purpose, several contract and business domains were analysed by the IST-Contract team,<sup>17</sup> among which the service level agreement (SLA) in software engineering proved especially interesting for us.

As a matter of course, there are some divergences between these two approaches: this is precisely what makes the collaboration meaningful. A twofold aspect may be underlined which differs from the approach followed by ITA and UniZar in OPAALS. Firstly, the IST-Contract project is concerned with service delivery processes in which large organizations, and therefore a great number of actors

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<sup>15</sup> See: [http://www.digital-ecosystems.org/de/refs/ref\\_proj.html](http://www.digital-ecosystems.org/de/refs/ref_proj.html)

<sup>16</sup> IST-Contract (Contract-based Systems Engineering Methods for Verifiable Cross-organisational Networked Business Applications / FP6 - Specific Targeted Research project - IST-2004-034418). Further details on this project may be found at: <http://www.ist-contract.org>

<sup>17</sup> Namely: modular certification test; dynamic insurance settlement; aerospace aftermarket; SLA in software engineering.

and resources are involved. In our case, on the contrary, most actors in the IST sector in Aragón are small and medium size enterprises, whose organizational structure is far simpler than that of a large organization. In this regard, a further difference concerns subcontracting and outsourcing processes. In the business domains analysed by IST-Contract, subcontracting is normally a transparent process, which raises a lot of legal issues to be considered, while in the IST sector in Aragón it comes normally to opaque subcontracting. Secondly, the IST-Contract approach may be deemed simplified from the legal point of view. It basically deals with only one aspect making up the contract content, namely the term (period, time) of obligations compliance by service providers. Because of this, the resulting domain models become too complex from the subjective or actor's perspective, but perhaps too simple from the object or matter perspective. As they put it, «conditions and obligations involved in the legal aspects of the contracts which cannot be formalized and processed by a software system are not in the scope of the IST-Contract scenarios».<sup>18</sup>

Our OPAALS research, however, do deal with those aspects in fact. ITA and UniZar must first analyze and structure the contracts, in order to make it possible to model and publish them on a certain platform or infrastructure, so that they can be sought for, negotiated, articulated and signed. Hereby dynamism in contracting services is envisaged, be it because the contract is “flexible” (negotiations are then possible) or because there exist several providers offering the same service (a better supply chain could be then established). Despite of this twofold difference, we concluded that collaboration was necessary. What can be fruitful in it mainly concerns the legal dimension. It is hardly justifiable that legal and regulatory issues remain out of the theoretical and operative models for any digital ecosystems, because the legal structure decisively shapes them. Provided that up to now there are few legal regulations or case law applying to this matter, the OPAALS contribution may fill up this analytical gap. Therefore we contacted the Universitat Politècnica de Catalunya (UPC), one of the leading institutions in IST-Contract, with which a promising collaboration has been initiated.

How does this collaboration materialize? As a first experience, UPC has agreed with us in analysing and using our contract templates (see ANNEXES III and IV) for a modelling proof. This makes it possible that UPC checks out whether the technical platform developed in IST-Contract is compatible with real contract structures. On the other hand, ITA and UniZar can obtain an important feedback as to the improvement and adaptation of the contract content structures. As a result, an increase of the feasibility and marketability of both projects can be expected. At this moment, UPC is analyzing and modelling the OPAALS contract templates. The next step will be the definition of possible collaboration scenarios.<sup>19</sup>

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<sup>18</sup> See *IST-Contract Project Deliverable D6.1*, p. 72

<sup>19</sup> The analysis and study of the IST-Contract project aims at finding possible cooperation and re-use of research results. In a forthcoming meeting with Mr. Javier Vázquez Salceda (from the UPC), it will be analyzed and discussed the viability of using their platform as infrastructure for modelling, publishing and consuming contract-based services.

Besides, it would be interesting to contact other projects involved in the Digital Ecosystems Cluster. An example of this is the ONE Project,<sup>20</sup> which deals with negotiation issues. It envisages setting forth how companies could create contract agreements to supply complex, integrated services as virtual organizations (or coalitions). Furthermore, the ONE Project is geared towards SME's in order to provide them with a trusted, secure and free of charge technological environment in which they are able to create tactical and strategic alliances. This has a tight connection to ITA and UniZar interests, for addressing collaborative competition issues within digital ecosystems is one of our research tasks in OPAALS.

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<sup>20</sup> Open Negotiation Environment (funded under 6th Framework Programme, Action Line: IST-2005-2.5.8 IST for Networked Businesses). See: <http://www.one-project.eu>

## 8 Next Steps and Ongoing Research Activities

As mentioned, all the reported ITA and UniZar research activities within OPAALS are currently in progress and will continue in the next months. The following activities may be highlighted:

- Documentation analysis

The bulk of documentation collected from the IST companies (see ANNEX I) is now being further analyzed in order to systematize new content structures, as well as to identify new problematic legal issues.

- Interviews

At the moment we are appointing dates for a second round of interviews with IST service providers, in order to widen the scope of (and to refine) the description of contracting processes in the business domain upon focus.

- Contract modelling

After having assessed the available documentation, new contract templates shall be elaborated regarding software development, housing and networks and system management services.

- Actions related to the DE Cluster

Collaboration with both IST-Contract and ONE-Projects, as it has been sketched in this Milestone, will be considered as a priority within the research group.

- Analysis of final use cases to be implemented and system architecture selection

These activities are highly related. The selection of the system architecture and the technologies to use to develop the use cases depend on the use cases themselves.

After the first round of interviews and the first contract templates, it starts to be clear the details of the use cases to implement. There will be basically two use cases one the contract anthologies are defined:

- On one hand, it will be created a service which will provide the contract which best fits the requirements for a set of parameters.
- On the other hand, and as an evolution of this previous first service, there will be another service which will dynamically select the best supply chain based on contracts specifications; indeed, the service will offer an aggregation of different contracts which will comply with the user requirements.

Based on these scenarios and on the first results of the research, ITA is already analysing two possibilities for the system architecture.

On one hand, and related to the previous item, ITA has requested to the IST-Contract Project (through the UPC partner) their system architecture in order to find possible cooperation and re-use of research results and to analyse the viability of using their platform as infrastructure to model, publish and consume contract-based services.

On the other hand, if that possibility is not possible to be used for our task purposes, then, it will be considered to create services using the DBE infrastructure.

Once these tasks have been completed, ITA and UniZar will continue the work plan. In this regard, the aforementioned problem of “formal vs. informal regulation” (see §§ 4.4 and 4.6) is closely connected to the question of how custom and self-regulation could work out in the framework of digital ecosystems, which also belongs to our research tasks. Besides, UniZar will go on studying business processes and agreements reached by the companies in the IST sector, in order to find out to what extent a new culture of “collaborative competition” is established in the region of Aragón and how should it be treated from the legal point of view. As far as concerns other specific tasks, semantic description of contracts for dynamic service composition will be at the core of the forthcoming research in task 6.8 (applied methodologies for dynamic service composition). In this respect, we will interact with OPAALS Work Package No. 2, where syntactic problems are being addressed. The research activities accorded to ITA and UniZar are tightly related to task 6.2 due to its focus on specific language patterns that can be formally structured and even automated. The applied ontological focus of ITA and UniZar is expected also to provide a fruitful input for task 6.3 (evolutionary framework of language).

## ANNEX I – Documentation Collected

Company Name	Documentation Available
Alerce www.alerce.es	Document types: contracts Services or products: information systems for logistics
Apser www.apser.es	Document types: contracts, offers, budgets, projects Services or products: networks management, hosting, housing
Barrabés Business Solutions www.barrabes.com	Document types: projects* Services or products: business IST consulting
Cierzo Development www.cierzo-development.com	Document types: contracts, offers, projects, budgets Services or products: web solutions, business IST consulting
Dialcom Networks www.dialcom.com	Document types: contracts, confidentiality agreements Services or products: software development, licensing and distribution
DSI www.dsi-e.com	Document types: contracts, projects, offers, agreements Services or products: software products, web solutions
Embou www.embou.com	Document types: contracts, offers Services or products: high bandwidth access
Eon www.eon.es	Document types: contracts, offers, budgets Services or products: software development and web solutions
Gabilos www.gabilos.com	Document types: contracts, offers, budgets Services or products: software development, licensing and distribution
Iritec www.iritec.es	Document types: contracts, offers, budgets Services or products: hosting, housing, web solutions
Izanet www.izanet.com	Document types: contracts, offers, budgets Services or products: hosting, housing, web solutions
Minalink www.minalink.com	Document types: contracts, offers* Services or products: e-commerce, web solutions, web content
Net2U www.neodoo.es	Document types: contracts, offers, budgets, projects Services or products: software and web solutions
Seinteco www.seinteco.es	Document types: contracts, offers, budgets Services or products: IST legal consulting, software solutions
Tool Banking Solutions www.tb-solutions.com	Document types: contracts, offers, commercial presentations Services or products: security and e-signature platforms
Trackglobe www.trackglobe.com	Document types: contracts, projects Services or products: business IST consulting
WARP Networks www.warp.es	Document types: contracts, projects* Services or products: software development, IST consulting

\* Documentation not provided or analyzed yet

# ANNEX II – Model Quest

## Entrevistas con responsables de empresas del sector TIC

### Cuestionario base

#### 1 – Descripción del dominio de negocio

- ¿Cuáles son los contratos más frecuentes que realiza su empresa?
- Señale las partes habituales que intervienen en ellos (empresa / cliente / subcontratista / ...)
- Recursos básicos implicados en la contratación
  - Roles (personas) involucrados en la negociación y en la contratación (por cada parte contratante)
  - Sistemas utilizados
    - CRM / BI / ERP
    - Herramientas de gestión documental, repositorios digitales, herramientas BPM, herramientas de gestión o entornos de desarrollo de software, estándares o métricas (IEEE...), etc.
    - Otros: ...

#### 2 – Proceso de contratación

- Desarrollo de la negociación
  - ¿Cómo discurre (y a través de qué canales) la negociación con los clientes?
- Oferta, aceptación y contraofertas
  - ¿Llega a algún tipo de acuerdo precontractual? ¿Verbal o por escrito? ¿Sobre qué aspectos principalmente?
  - ¿Recibe contraofertas (al presupuesto, a la propuesta de contrato...)? ¿Sobre qué aspectos principalmente?
  - ¿Cómo se documentan los tratos preliminares o la negociación? (mail, fax, presupuesto escrito...)
  - ¿Es vinculante el presupuesto? ¿Durante cuánto tiempo suele considerarse vigente?
  - ¿Cuándo entiende que se acepta la oferta? ¿Cómo se documenta la aceptación?
  - ¿Ofrece servicios o productos a precio fijo o no negociable?
  - ¿Se limita la oferta/negociación al objeto principal o abarca otros aspectos (asistencia, formación...)?
- ¿Cuáles son las principales dificultades que suele encontrar en la negociación con el cliente?
- ¿Quién corre con el coste del trabajo precontractual si hay / si no hay acuerdo?
- ¿A qué aspectos suelen dar mayor importancia los clientes a la hora de negociar o contratar? Por ejemplo: precios, plazos de ejecución...
- ¿Formaliza contratos on-line o sólo por escrito?
- A la hora del desarrollo y cumplimiento del contrato, ¿qué problemas o conflictos suelen plantearse más?
- ¿Suelen recibirse peticiones de modificaciones o plantearse cambios durante el contrato (p.ej. plazos, precios)?
- ¿Suele haber flexibilidad ante el incumplimiento de plazos o de otras cláusulas del contrato? ¿Qué aspectos se considera "menos grave" incumplir?
- En caso de subcontratación, ¿cómo se coordina el cumplimiento del contrato original?
- ¿Suele pactar algún sistema de gestión y solución de conflictos entre las partes (arbitraje y otros medios alternativos)?
- Forma parte del algún programa de buenas prácticas, código tipo o sello de calidad (autorregulación). En caso afirmativo, ¿qué ventajas piensa que tiene para su empresa?
- ¿Existen normas o prácticas que no estén reflejadas por escrito, pero que se dan por sobreentendidas en los procesos de negociación y contratación (p.ej., en cuanto a las relaciones entre las partes, las reuniones de trabajo, etc.)?
- ¿Forma su empresa parte de algún "cluster" o de alianza estratégica con otras empresas del sector, o con participación de alguna institución oficial o pública?



## ANNEX III – Content Structure of IST Contracts (1)

### Contrato de desarrollo web

#### Prueba de estructuración

##### Estructura del contrato

0. Parte introductoria
1. Objeto del contrato (descripción de los servicios)
2. Plazos de ejecución del contrato <sup>(1)</sup>
3. Precio y forma de pago <sup>(2)</sup>
4. Condiciones generales
  - 4.1. Obligaciones de las partes
  - 4.2. Condiciones relativas al desarrollo del proyecto <sup>(3)</sup>
  - 4.3. Puesta en funcionamiento y formación de usuarios <sup>(4)</sup>
  - 4.4. Garantía técnica <sup>(4)</sup>
  - 4.5. Responsabilidades
5. Propiedad intelectual y documentación <sup>(5)</sup>
6. Confidencialidad y protección de datos
  - 6.1. Confidencialidad
  - 6.2. Protección de datos de las partes
  - 6.3. Acceso a datos personales por cuenta de tercero <sup>(6)</sup>
7. Modificación del contrato
8. Vigencia, terminación y resolución del contrato <sup>(7)</sup>
9. Notificaciones
10. Ley aplicable, jurisdicción y resolución de conflictos

##### Servicios vinculados

- Registro de dominio
- Redirección de dominio
- Alojamiento web (hosting)
- Housing / Data Centre
- Mantenimiento web
- Gestión contenidos
- SEO
- SMO

##### Notas

<sup>(1)</sup> En lugar de la duración, en el contrato de desarrollo web interesan los plazos de ejecución del proyecto, ya que son un criterio relevante de preferencia a la hora de contratar. A diferencia del contrato de *hosting* (que se toma como referencia de los demás), en el contrato de desarrollo web la “duración” del contrato no suele ser determinante del precio, y por eso se reubica en el § 8.

<sup>(2)</sup> Precio y forma de pago se mantienen en el § 3.

<sup>(3)</sup> Estas cláusulas se refieren a cuestiones relativas al desarrollo del proyecto, como por ejemplo el lugar de las reuniones de trabajo, los desplazamientos, las dietas, posibles costes adicionales...

<sup>(4)</sup> En vez de cláusulas sobre disponibilidad de los servicios, típicas del contrato de *hosting*, encontramos aquí los §§ 4.3 y 4.4. El tema de la garantía (§ 4.4) se considera ahora como un aspecto independiente de las responsabilidades.

<sup>(5)</sup> Las cláusulas sobre propiedad intelectual son características de este tipo de contratos (más que en el caso del hosting), y se añade asimismo un elemento fundamental en todo contrato de desarrollo de software, que también aparece en los contratos de desarrollo web: el tema de la documentación y el *escrow*.

<sup>(6)</sup> En este tipo de contratos no siempre es necesario realizar un acceso a datos por cuenta del cliente y, en todo caso, cuando éste se produce es de mucha menor intensidad que en el caso del contrato de *hosting*, por lo que las cláusulas correspondientes quedan sensiblemente reducidas.

<sup>(7)</sup> Como se indicaba antes, la “duración” del contrato pasa a este punto, convertida en “vigencia”.

## 0. Parte introductoria

### 0.1. Identificación de las partes contratantes

- Prestador
  - Denominación social: ...
  - CIF: ...
  - Domicilio social: ... (dirección) / ... (localidad)
  - Representante legal: ... (nombre) / ... (apellidos)
  - CIF: ...
- Cliente:
  - Denominación social: ...
  - CIF: ...
  - Domicilio social: ... (dirección) / ... (localidad)
  - Representante legal: ... (nombre) / ... (apellidos)
  - CIF: ...
- Reconocimiento mutuo de capacidad y representación Siempre incluido (no varía)  
 Ejemplo: «ambas partes se reconocen mutuamente capacidad suficiente para formalizar el presente contrato»

### 0.2. Modalidad de contratación

- Por escrito
- Electrónica (online) – Condiciones de celebración
  - Momento de perfección del contrato: aceptación online /confirmación
  - Lugar de celebración del contrato: domicilio del prestador / cliente
  - Confirmación obligatoria por parte del prestador: sí (por escrito / por e-mail) / no

*Casi todos los contratos analizados y, en general, casi todos los contratos de desarrollo web son contratos convencionales por escrito. Desde el punto de vista del proyecto OPAALS, sin embargo, serían todos electrónicos u online (por hipótesis). Por eso es necesario añadir aquí cláusulas sobre el proceso de contratación online.*

### 0.3. Definiciones

*En principio, las definiciones tienen sólo un valor interpretativo, aunque “vinculante”, ya que suelen estar incluidas en el clausulado del contrato.*

# 1. Objeto del contrato (descripción y contenidos del servicio)

## 1.0. Descripción general del objeto del contrato

Palabras clave: diseño web, programación web, desarrollo web, requisitos funcionales

### 1.1. Descripción de los contenidos del servicio

- |   |                                  |
|---|----------------------------------|
| <b>❶ Estructura y diseño de la web:</b>                         | Sí / No                          |
| ▪ Extranet:   | Sí / No                          |
| ▪ Definición de módulos o secciones                             | ...                              |
| ▪ Otras características   | ...                              |
| ▪ Intranet:   | Sí / No                          |
| ▪ Definición de módulos o secciones                             | ...                              |
| ▪ Tipo de certificación o protocolo                             | https / ...                      |
| ▪ Autenticación usuarios  |                                  |
| - Autenticación individualizada                                 | Sí / No                          |
| - Tipo de autenticación   | login+pass / ...                 |
| ▪ Diseño y presentación de la web                               |                                  |
| ▪ Creación de logos   | Incluido / No incluido           |
| ▪ Banco de imágenes   | Incluido / No incluido           |
| ▪ Infografía  | Incluido / No incluido           |
| ▪ Mapas   | Incluido / No incluido           |
| ▪ Redacción de textos   | Incluido / No incluido           |
| ▪ Traducciones  | Incluido / No incluido           |
| - Inglés  | Sí / No                          |
| - Otros idiomas   | Sí (...) / No                    |
| ▪ Prestaciones adicionales                                      |                                  |
| ▪ Boletines   | No / Sí                          |
| ▪ Tablón anuncios   | No / Sí                          |
| ▪ Contenidos 2.0 incluidos                                      | No / Sí: ... (blog, wiki, otros) |
| ▪ Otros contenidos  | ... (ej: utilidades e-learning)  |
| <b>❷ Desarrollo y programación web (requisitos funcionales)</b> |                                  |
| ▪ Arquitectura  |                                  |
| ▪ Tipo de servidor  | ...                              |
| ▪ Tipo de base de datos   | ...                              |
| ▪ Diseño optimizado para  | ... (IE, Firefox, Safari...)     |
| ▪ Accesibilidad de la web (WAI)                                 | Sí (...) / No                    |
| ▪ Peso máximo por página  | ... / Sin definir                |
| ▪ Resolución mínima   | ... / Sin definir                |
| ▪ Hoja de estilos (CSS)   | ...                              |
| ▪ HTML validado para  | ...                              |
| ▪ Otras características técnicas                                |                                  |
| ▪ JavaScript (validado para)                                    | Sí (validado para ...) / No      |
| ▪ Uso de Flash  | Restringido / No restringido     |
| ▪ Impresión sin errores   | Sí / No                          |
| ▪ Otros   | ...                              |
| <b>❸ Extras o contenidos adicionales del servicio</b>           |                                  |

▪ Integración con sistemas de la empresa (CRM, BI, ERP)	Sí: ... (alcance) / No
▪ Migración de sistemas de la empresa a la web	Sí: ... (alcance) / No
▪ Otros	...
<b>④ Mantenimiento</b>	
▪ Mantenimiento correctivo (solución problemas técnicos)	Sí / No
▪ Periodo	...
▪ Modalidades de respuesta	... / ... / ...
▪ Tiempos máximos de respuesta	...
▪ Exclusiones	...
▪ Mantenimiento pasivo (mejoras y adaptaciones)	Sí / No
▪ Periodo	...
▪ Exclusiones	...
▪ Mantenimiento activo (gestión contenidos)	Sí / No
▪ Periodo	...
▪ Exclusiones	...
<b>⑤ Solicitud de servicios complementarios</b>	
▪ Hosting	Sí / No
▪ Housing	Sí / No
▪ SEO	Sí / No
▪ SMO	Sí / No
▪ Otros	...

☞ *La contratación y prestación de estos servicios se rige por sus contratos específicos.*

## 2. Plazos de ejecución del contrato

### 2.1. Plazo general de ejecución del contrato

- Plazo general de ejecución del contrato DD-MM-AAAA / XX días\*

*\* En el caso de que se señale un plazo en días, éstos se cuentan desde la fecha del contrato*

### 2.2. Plazos de ejecución por fases o servicios

- Diseño DD-MM-AAAA / XX días
- Análisis funcional DD-MM-AAAA / XX días
- Programación DD-MM-AAAA / XX días
- Puesta en funcionamiento DD-MM-AAAA / XX días

*\* La denominación de las fases varía de un prestador a otro, pero estas cuatro pueden aplicarse a todos*

### 2.3. Condiciones de revisión de los plazos

- Causas de revisión de los plazos ...
- Condiciones de revisión de los plazos ...
  - Preaviso ... días
  - Forma de la comunicación por escrito / ...
- Efectos de la revisión de los plazos\* ...
  - En caso de aceptación modificación del contrato
  - En caso de no aceptación (terminación del contrato) sin / con (...) indemnización

*\* Este punto podría incluirse directamente en el § 7 (modificación de las condiciones pactadas)*

### 2.4. Penalizaciones por incumplimiento de los plazos

- Alcance: sólo incumplimientos imputables al prestador Sí (no varía)
- Incumplimiento del plazo general de ejecución
  - Retraso > ... días laborables / naturales ... € / ... % precio total (sin IVA)
  - Retraso > ... días laborables / naturales ... € / ... % precio total (sin IVA)
  - Retraso > ... días laborables / naturales ... € / ... % precio total (sin IVA)
- Incumplimiento de los plazos parciales
  - Diseño: > ... días laborables / naturales ... € / ... % precio total (sin IVA)
  - Análisis funcional: > ... días laborables / naturales ... € / ... % precio total (sin IVA)
  - Programación: > ... días laborables / naturales ... € / ... % precio total (sin IVA)
  - Puesta en marcha: > ... días laborables / naturales ... € / ... % precio total (sin IVA)

### 3. Precio y forma de pago

#### 3.1. Precio

- Precio del servicio contratado sin impuestos: ... €
- Precio total del servicio contratado (impuestos incluidos): ... €
- Dietas y desplazamientos incluidos en el precio: Sí / No

#### 3.2. Forma de pago

- Distribución del pago pago único / fraccionado
- En caso de pago fraccionado
  - Cantidad o porcentaje del total / Momento del pago ... (€ o %) / ... (fecha o fase)
  - Cantidad o porcentaje del total / Momento del pago ... (€ o %) / ... (fecha o fase)
- Modalidades de pago
  - Transferencia bancaria: sí / no
  - Domiciliación en cuenta del cliente: sí / no
    - Penalización por devolución de recibo: ... € / no
  - Otras: ...

#### 3.3. Facturación y aspectos tributarios

- Facturación: manual / telemática
  - Número de facturas a emitir ...
  - Momento de emisión de facturas ...
- Impuestos (IVA) incluidos en los precios sí / no

#### 3.4. Condiciones de revisión de los precios acordados

- Causas de revisión de precios ...
- Condiciones de revisión de precios
  - Forma de comunicación por escrito / ...
  - Plazo de preaviso ... días
- Efectos de la revisión de precios\*
  - En caso de aceptación modificación del contrato
  - En caso de no aceptación (terminación del contrato) sin / con (...) indemnización

*\* Este punto podría incluirse directamente en el § 7 (modificación de las condiciones pactadas)*

#### 3.5. Penalizaciones por demora en el pago

- Alcance: incumplimiento imputable al cliente
- En caso de pago único: cantidad o porcentaje / plazo ... (€ o %) / ... (día, semana)
- En caso de pago fraccionado: cantidad o porcentaje / plazo ... (€ o %) / ... (día, semana)

#### 3.6. Dietas y gastos de desplazamiento

- Dietas y gastos de desplazamiento incluidos Sí / No
- Pago de gastos de desplazamiento fuera de ... (localidad)
- Cuantía de las dietas ... € / día

## 4. Condiciones generales de prestación de los servicios

### 4.1. Obligaciones generales de las partes

- |   |               |
|---|---------------|
| ▪ Obligación de cumplimiento de condiciones pactadas            | Sí (no varía) |
| ▪ Obligación de prestación del servicio (prestador)             | Sí (no varía) |
| ▪ Obligación de pago de contraprestación (cliente)              | Sí (no varía) |
| ▪ Cumplimiento de normativa aplicable a actividad de las partes | Sí (no varía) |
- Esta obligación se refiere a la normativa de seguridad social, riesgos laborales...*

### 4.2. Condiciones relativas al desarrollo del proyecto

- |  |                                  |
|--|----------------------------------|
| ▪ Deberes de colaboración (ambas partes)                           |                                  |
| ▪ Respuesta diligente a dudas y consultas (ambas partes)           | Sí (no varía)                    |
| ▪ Listado de personas de contacto y responsables                   | Sí / No                          |
| - Fecha o momento de entrega del listado                           | DD-MM-AAAA / ... días / ...      |
| ▪ Reuniones de trabajo (incluidas en el precio)                    | ... (núm.) / ... (periodicidad)  |
| ▪ En la sede del prestador   | ... (núm.) / ilimitadas          |
| ▪ En la sede del cliente   | ... (núm.) / ilimitadas          |
| ▪ Documentación de las reuniones (actas)                           | Sí (prestador)                   |
| ▪ Plazo de aprobación de las actas de reunión                      | ... días (después de la reunión) |
| ▪ Deber de facilitar recursos necesarios para ejecutar el contrato | Sí (no varía)                    |
| ▪ Accesos necesarios a instalaciones y sistemas del cliente        | Sí (no varía)                    |
| ▪ Momento entrega de materiales necesarios por el cliente          | DD-MM-AAAA / ... días / ...      |
| ▪ Espacio de trabajo   | Sí / No                          |
| ▪ Material de oficina  | Sí / No                          |
| ▪ Pruebas de aceptación parcial por parte del cliente              |                                  |
| ▪ Conformidades puntuales a petición del prestador                 | Sí / No                          |
| ▪ Pruebas de aceptación obligatorias                               | Sí / No                          |
| - Diseño y estructuración  | Sí / No                          |
| - Otras  | ...                              |
| ▪ Forma de aceptación  | expresa / tácita (... días)      |
| ▪ Seguimiento y control del proyecto                               |                                  |
| ▪ Facultad de inspección del proyecto por el cliente               | Sí / No                          |
| ▪ Informes periódicos por parte del prestador                      | Sí (... periodicidad) / No       |
| ▪ Fase de preproducción (pruebas y control de calidad)             | Sí / No                          |
| ▪ En los servidores del prestador                                  | Sí: ... (periodo) / No           |
| ▪ En los servidores del cliente                                    | Sí: ... (periodo) / No           |

### 4.3. Puesta en funcionamiento y formación de usuarios

- |  |               |
|--|---------------|
| ▪ Condiciones de la puesta en funcionamiento               |               |
| ▪ Instalación y puesta en marcha en servidores del cliente | Sí (no varía) |
| ▪ Prueba de aceptación del proyecto terminado              | Sí / No       |
| ▪ Entrega de documentación                                 | Sí (no varía) |
| Ejemplos: manuales de usuario, otra documentación          |               |
| ▪ Acciones de formación de usuarios                        | Sí / No       |
| ▪ Descripción de las acciones formativas                   | ...           |

#### 4.4. Garantía técnica

▪ Garantía técnica de buen funcionamiento	Sí (no varía)
▪ Alcance	...
En principio, cubre cualquier disfuncionalidad o incumplimiento de los requisitos pactados que sean imputables al prestador (errores en el código, en las bases de datos...).	
▪ Solución de problemas y consultas incluidas	sí / no
▪ Exclusiones	
▪ Mal uso o alteraciones por parte del cliente	sí (no varía)
▪ Otras	...
▪ Modalidades y tiempos de respuesta	...
▪ Momento de entrada en vigor	...
▪ Duración del periodo de garantía técnica	... (núm. días / meses)

#### 4.5. Responsabilidades

▪ Independencia jurídica de las partes contratantes	sí (no varía)
▪ Responsabilidades del prestador	
▪ Copias de seguridad del proyecto	sí / no
▪ Exclusiones generales de responsabilidad	
- Incumplimientos del cliente	sí (no varía)
- Por software o desarrollos de terceros	sí (no varía)
- Problemas preexistentes en los sistemas del cliente	sí (no varía)
▪ Exclusión de responsabilidad por acumulación de trabajo	sí / no
- Condiciones	...
▪ Responsabilidades del cliente (alcance)	
▪ Indemnización por gastos derivados de acciones legales	sí / no
▪ Otras	...
▪ Exclusión de responsabilidad por fuerza mayor	sí / no
▪ Acreditación de la fuerza mayor por quien la alega	sí (no varía)
▪ Otras condiciones	...
▪ Condiciones aplicables a las reclamaciones	sí (no varía)
▪ Plazo desde la aparición de la causa	sí (... días) / no
▪ Por escrito	sí (no varía)
▪ Otras	...



## 5. Propiedad intelectual

- Reconocimiento de titularidad de la web corporativa cliente (no varía)
- Propiedad intelectual sobre diseños y elementos gráficos ...
- Propiedad del software desarrollado (en su caso) cliente / prestador
- Acceso a códigos fuente y documentación básica (*escrow*) Sí / No
  
- Uso de recursos que son propiedad de las partes
  - Exclusivamente para la ejecución del contrato sí (no varía)
  - Restricción de uso o explotación de desarrollos del prestador sí / no
- Uso de recursos que son propiedad de terceros
  - Sujeción expresa a las respectivas condiciones de uso sí / no
  
- Prohibición de contratación de personal del prestador por cliente sí (... años) / No

## 6. Confidencialidad y protección de datos

### 6.1. Confidencialidad (información confidencial)

▪ Definición de información confidencial	sí / no
▪ Toda información aportada por las partes	sí / no
▪ Otra	...
▪ Definición de información no confidencial	...
▪ Restricciones de uso de la información confidencial	
▪ Limitación a la ejecución del contrato	sí / no
▪ Prohibición de revelación a terceros	sí (no varía)
▪ Condiciones de protección de la información confidencial	
▪ Regla de la equivalencia de protección entre partes	sí / no
▪ Otra	...
▪ Destino de la información confidencial después del contrato	destrucción / devolución
▪ Duración de la obligación de confidencialidad:	... años

### 6.2. Protección de datos de las partes (datos personales derivados del contrato)

*\* En principio, este bloque sería aplicable a los contratos suscritos con consumidores finales. En el caso de B2B, con el nuevo reglamento de la LOPD, no está claro que sea obligatorio incluir este tipo de cláusulas. Lo normal, con todo, es que aparezcan.*

▪ Identificación del responsable del fichero o tratamiento	nombre del prestador (no varía)
▪ Finalidad y usos de la información	
▪ Gestión / cumplimiento del contrato	sí (no varía)
▪ Envíos comerciales	sí / no
▪ Otras	sí / no
▪ Cesiones previstas	sí / no
▪ Finalidad (sólo de entre las indicadas antes)	...
▪ Destinatarios	...
▪ Información sobre derechos	
▪ Acceso, rectificación, cancelación, oposición	sí (no varía)
▪ Forma de ejercicio	por escrito / e-mail

### 6.3. Acceso a datos personales por cuenta de tercero

*\* Se trata aquí de las condiciones de protección de datos aplicables al acceso y tratamiento de datos personales que realiza en prestador por cuenta del cliente. Se trata de contenidos predefinidos ya legalmente (arts. 12 LOPD).*

▪ Delimitación expresa del responsable y del encargado	cliente y prestador (no varía)
▪ Limitaciones de uso y tratamiento de los datos	
▪ Limitación a finalidad de gestión del alojamiento web	sí (no varía)
▪ Sujeción a instrucciones del responsable	sí (no varía)
▪ Otras condiciones no previstas legalmente	...
▪ Medidas de seguridad	
▪ Definición del nivel de seguridad aplicable	básico / medio / alto
▪ Destino de la información confidencial después del contrato	destrucción / devolución

## 7. Modificación de las condiciones de prestación de los servicios

- |  |                               |
|--|-------------------------------|
| ▪ Causas de modificación                                     | ...                           |
| ▪ Requisitos y condiciones formales                          |                               |
| ▪ Comunicación   | por escrito / por e-mail      |
| ▪ Plazo de preaviso  | ... días                      |
| ▪ Otros  | ...                           |
| ▪ Efectos de la modificación de condiciones pactadas         |                               |
| ▪ En caso de aceptación                                      | modificación del contrato     |
| ▪ En caso de no aceptación (terminación del contrato)        | sin / con (...) indemnización |
| ▪ Subcontratación y cesión de derechos y obligaciones        |                               |
| ▪ Prohibición de subcontratación y cesión                    | sí / no                       |
| ▪ Necesidad de autorización del prestador                    | sí / no                       |
| ▪ Responsabilidad del prestador por actos del subcontratista | sí / no                       |

## 8. Vigencia, terminación y resolución del contrato

- Fecha o momento de entrada en vigor del contrato ... (DD-MM-AAAA / momento)
- Causas de resolución y terminación del contrato
  - Mutuo acuerdo sí (no varía)
  - Incumplimiento de las condiciones pactadas sí (no varía)
    - Salvo incumplimiento de plazos sí / no
  - Pérdida de confianza o falta de colaboración del cliente sí / no
  - Quiebra o suspensión de pagos de alguna de las partes sí / no
  - Disolución de alguna de las empresas contratantes sí (no varía)
  - Causas legalmente establecidas sí (no varía)
- Condiciones de la resolución del contrato
  - Incumplimiento por parte del prestador
    - Reclamación previa por escrito (del cliente) sí / no
    - Preaviso sí (... días) / no
  - Incumplimiento por parte del cliente
    - Reclamación previa por escrito (del prestador) sí / no
    - Preaviso sí (... días) / no
- Efectos de la resolución del contrato
  - Entrega de productos y documentos generados sí / no
  - Pago de trabajos realizados antes de la resolución sí / no
  - Indemnización por incumplimiento condiciones pactadas sí (...€ / ...%) / no
  - Otros efectos ...

## 9. Notificaciones

- |  |             |
|--|-------------|
| ▪ Direcciones de las partes a efectos de comunicaciones  | según § 0.1 |
| ▪ Obligación de mantener activo el canal de comunicación | sí / no     |
| ▪ Indicación de pautas de conducta (respeto...)          | sí / no     |

## 10. Ley aplicable y resolución de conflictos

### 10.1. Legislación aplicable

- Legislación española sí (no varía)

### 10.2. Reconocimiento de fuero o jurisdicción

- Sumisión a juzgados y tribunales de ... (partido judicial)

### 10.3. Procedimientos extrajudiciales de resolución de conflictos

- Procedimiento extrajudicial (arbitral) de solución de conflictos sí / no
- Carácter obligatorio / opcional
- Órgano (arbitral) o procedimiento designado ...
- Otras previsiones (p. ej. gastos derivados del arbitraje) ...

## ANNEX IV – Content Structure of IST Contracts (2)

### Contrato de hospedaje web (*hosting*)

#### Prueba de estructuración

##### Estructura del contrato

0. Parte introductoria
1. Objeto del contrato (descripción del servicio)
2. Duración del contrato
3. Precio y forma de pago
4. Condiciones generales de prestación del servicio
  - 4.1. Obligaciones de las partes
  - 4.2. Disponibilidad del servicio
  - 4.3. Condiciones de uso del servicio
  - 4.4. Responsabilidades y/o garantías
5. Propiedad intelectual
6. Confidencialidad y protección de datos
  - 6.1. Confidencialidad
  - 6.2. Protección de datos de las partes
  - 6.3. Acceso a datos personales por cuenta de tercero
7. Modificación del contrato
8. Terminación y resolución del contrato
9. Notificaciones
10. Ley aplicable, jurisdicción y resolución de conflictos

##### Servicios vinculados

- Registro de dominio
- Redirección de dominio
- Housing / Data Centre
- Desarrollo web
- Mantenimiento web
- SEO

#### Contratos (en general)

En general, todos los contratos, con independencia de cuál sea su objeto, incluyen los siguientes §§:

- § 0 Parte introductoria
- § 1 Objeto del contrato
- § 2 Duración del contrato
- § 3 Precio y forma de pago
- § 4.1 Obligaciones de las partes
- § 4.4 Responsabilidades y/o garantías
- § 6.2 Protección de datos personales de las partes
- § 7 Modificación del contrato
- § 8 Terminación y/o resolución del contrato
- § 9 Notificaciones entre las partes
- § 10 Ley aplicable, jurisdicción y resolución de conflictos

#### Contratos TIC

Los siguientes §§ son característicos de los contratos celebrados en el sector TIC (aunque también pueden encontrarse en otro tipo de contratos):

- § 5 Propiedad intelectual
- § 6.1 Confidencialidad

#### Contratos HOSTING

Específicos de los contratos de *hosting* son los siguientes §§:

- § 4.2 Disponibilidad del servicio

§ 4.3 Condiciones de uso del servicio

§ 4.4 Responsabilidades y/o garantías (cláusula de responsabilidad del cliente por los contenidos)

§ 6.3 Acceso a datos personales por cuenta de tercero (art. 12 LOPD)



## 0. Parte introductoria

### 0.1. Identificación de las partes contratantes

- Prestador (arrendador del servicio):
  - Denominación social: ...
  - Representante legal: ...
- Cliente (arrendatario del servicio):
  - Denominación social: ...
  - Representante legal: ...
- Reconocimiento mutuo de capacidad y representación Siempre incluido (no varía)

### 0.2. Modalidad de contratación

- Por escrito
- Electrónica (online)

### 0.3. Definiciones

*En principio, las definiciones tienen sólo un valor interpretativo, aunque “vinculante”, ya que suelen estar incluidas en el clausulado del contrato.*

# 1. Objeto del contrato (descripción y contenidos del servicio)

## 1.0. Descripción general del objeto del contrato

Palabras clave: alojamiento (web), hospedaje (web), *hosting*

## 1.1. Descripción de los contenidos del servicio

❶ Ancho de banda / Tasa de transferencia (mensual):	... GB
▪ Escalabilidad automática:	... Sí / No
❷ Espacio en disco duro:	... MB / GB
▪ Escalabilidad automática:	... Sí / No
❸ Correo electrónico	Sí / No
▪ Número de buzones:	... buzones
▪ Capacidad por buzón:	... MB / GB
▪ Modalidades de acceso:	POP3 / WebMail
▪ Panel de control:	Sí / No
▪ Redirección de cuentas internas:	Sí / No
▪ Número máximo:	... / sin limitación
▪ Redirección de cuentas externas:	Sí / No
▪ Número máximo:	... / sin limitación
▪ Listas de correo:	Sí / No
▪ Número listas:	...
▪ Número máximo usuarios:	...
▪ Otras características:	... (mayordomo, alta en web...)
❹ Seguridad	
▪ Servidor seguro:	Sí / No
▪ Cortafuegos / monitorización puertos:	Sí / No
▪ Antivirus:	Sí / No
▪ Anti-spam:	Sí / No
▪ Copia de seguridad:	Sí / No
▪ Periodicidad:	diaria / semanal / mensual
❺ Otras prestaciones	
▪ Gestión DNS del dominio	Siempre incluido
▪ Número de cuentas FTP:	... cuenta/s FTP
▪ Envío de formularios	Sí / No
▪ Estadísticas conexión y visitas	Sí / No
▪ IP propia	Sí / No
▪ Directorios acceso restringido	Sí / No
▪ Servidor de Chat	Sí / No
▪ Número de salas privadas:	...
▪ Sistema de foro	Sí / No
▪ Sistema de envíos SMS	Sí / No

## 1.2. Lugar o localización del hospedaje

País / Localidad / Dirección

## 1.3. Nombre o nombres de dominio

www.ejemplo.es

## 2. Duración del contrato

### 2.1. Duración del contrato

- Duración del alojamiento anual / ...

### 2.2. Entrada en vigor

- Fecha pactada DD-MM-AAAA
- Otras condiciones de entrada en vigor
  - Primer acceso al servicio sí / no
  - Confirmación inicio (p.ej. vía e-mail) sí / no

### 2.3. Prórroga del contrato

- Tipo de prórroga tácita / expresa
- Condiciones de la prórroga (expresa)
  - Preaviso ... días
  - Forma de la comunicación por escrito / ...

### 3. Precio y forma de pago

#### 3.1. Precio

- ❶ Precio del servicio contratado: ... €
- ❷ Ampliación de prestaciones (en caso de escalabilidad)
  - Tasa de transferencia mensual: ... GB / ... €
  - Espacio en disco: ... MB / ... €

#### 3.2. Forma de pago

- ❶ Periodicidad (según plazos contratados): mensual / trimestral / anual / ...
- ❷ Primer pago por adelantado: sí / no
- ❸ Ampliación de prestaciones (en caso de escalabilidad)
  - Tasa de transferencia mensual: ... GB / ... €
- ❹ Modalidades de pago
  - Transferencia bancaria: sí / no
  - Domiciliación en cuenta del cliente: sí / no
    - Penalización por devolución de recibo: ... € / no
  - Otras: ...

#### 3.3. Facturación y aspectos tributarios

- ❶ Facturación: manual / telemática
- ❷ Impuestos (IVA) incluidos en los precios: sí / no

#### 3.4. Condiciones de revisión de los precios acordados

- ❶ Causas de revisión de precios
  - Adaptación anual al IPC: sí / no
  - Aumento en costes de gestión o seguridad: sí / no
  - Otras: ...
- ❷ Condiciones de revisión de precios
  - Forma de comunicación: por escrito / ...
  - Plazo de preaviso: ... días
- ❸ Efectos de la revisión de precios
  - En caso de aceptación (novación del contrato): continuación del contrato
  - En caso de no aceptación (terminación del contrato): sin / con (... €) indemnización

## 4. Condiciones generales de prestación de los servicios

### 4.1. Obligaciones generales de las partes

▪ Obligación de cumplimiento de condiciones pactadas	Sí (no varía)
▪ Obligación de prestación del servicio (prestador)	Sí (no varía)
▪ Obligación de pago de contraprestación (cliente)	Sí (no varía)

### 4.2. Disponibilidad del servicio

▪ Pauta general (en condiciones normales)	24 x 7 / ...
▪ Porcentaje de disponibilidad garantizado	... %
▪ Regla de los límites razonables a la disponibilidad	sí / no
▪ Interrupciones y suspensiones temporales del servicio	
▪ Causas	
- Técnicas (reparación, mantenimiento, mejora)	sí / no
- Imputables a terceros (problemas en red o servidor)	sí / no
- Imputables al cliente	sí (no varía)
▪ Plazo máximo de interrupción	... horas / días
▪ Fuerza mayor	
▪ Exclusión general de responsabilidad de las partes	sí / no
▪ Causa de resolución del contrato si interrupción mayor	... días

### 4.3. Condiciones de uso del servicio (obligaciones del cliente)

▪ Respeto de instrucciones técnicas y de uso	sí (no varía)
▪ Prohibición de acceso y alteración estructura servidor	sí (no varía)
▪ Prohibición de usos contrarios a ley / derechos terceros	sí (no varía)
Ejemplos de usos prohibidos: publicación/transmisión contenidos discriminatorios o violentos, publicación/transmisión de contenidos que vulneren derechos de propiedad intelectual, recogida o utilización ilícita de datos personales; usos ilícitos del correo electrónico ( <i>spammig, mail bombing...</i> )	
▪ Buzones de correo electrónico	
▪ Vaciado si se mantiene inactivo durante	... días

### 4.4. Responsabilidades y garantías

▪ Reconocimiento (cliente) de funcionamiento inicial correcto	sí / no
▪ Periodo de prueba	sí / no
▪ Plazo	... días
▪ Libre desistimiento (sin penalización)	sí / no
▪ Reembolso de contraprestaciones abonadas	sí / no
▪ Fianza	sí (...€) / no
▪ Independencia jurídica de las partes contratantes	sí (no varía)
▪ Responsabilidades del prestador	
▪ Exclusiones generales de responsabilidad	
- Uso / mal uso del servicio o equipos por el cliente	sí / no
- Pérdida o borrado accidental de datos	sí / no
- Daños por interrupción del negocio	sí / no

- Daños por correo electrónico no operativo      sí / no
- Daños a terceros      sí / no
- Responsabilidad por el contenido alojado      sí / no
- Fallos del servicio imputables a proveedores de acceso      sí / no
- Lentitud del servicio      sí / no
- Contaminación de los equipos y daños por virus      sí / no
- Intrusiones de terceros      sí / no
- Configuración defectuosa de los equipos por el cliente      sí / no
- Deterioro de equipos      sí / no
- Responsabilidad si superación plazo máximo interrupción      sí / no
- Restauración o reposición de datos
  - Si pérdida imputable al prestador      sí (no varía)
  - Si pérdida imputable al cliente      sí (... € hora) / no
- Responsabilidades del cliente (alcance)
  - Responsabilidad general por los contenidos      sí (no varía)

Ejemplos: contenido web, información transmitida y almacenada, enlaces, reivindicaciones de terceros y las acciones legales por infracción de derechos de terceros (propiedad intelectual, honor, intimidad...) y protección de menores...

  - Responsabilidades expresamente asumidas
    - Indemnización por gastos derivados de acciones legales      sí / no
    - Otras      sí / no
- Condiciones aplicables a las reclamaciones      sí (no varía)
  - Plazo desde la aparición de la causa      sí (... días) / no
  - Por escrito      sí (no varía)
  - Otras      sí / no

## 5. Propiedad intelectual

*\* En el caso del contrato de hosting no es una cláusula muy relevante (suele limitarse a reconocer la titularidad de la propiedades del prestador y a exigirle respeto a las condiciones de los recursos de terceros que se ponen a disposición del cliente), pero he preferido mantenerla como apartado independiente porque así suele hacerse en los contratos TIC*

- ❶ Medios y recursos para la prestación del servicio
  - Reconocimiento expreso de la titularidad del prestador      sí / no
- ❷ Medios y recursos de terceros a disposición del cliente
  - Sujeción expresa a las respectivas condiciones de uso      sí / no

## 6. Confidencialidad y protección de datos

### 6.1. Confidencialidad (información confidencial)

❶ Definición de información confidencial	sí / no
▪ Toda información aportada por las partes	sí / no
▪ Otra	...
▪ Definición de información no confidencial	...
❷ Restricciones de uso de la información confidencial	
▪ Limitación a la ejecución del contrato	sí / no
▪ Prohibición de revelación a terceros	sí (no varía)
❸ Condiciones de protección de la información confidencial	
▪ Regla de la equivalencia de protección entre partes	sí / no
▪ Otra	...
❹ Destino de la información confidencial después del contrato	destrucción / devolución
❺ Duración de la obligación de confidencialidad:	... años

### 6.2. Protección de datos de las partes (datos personales derivados del contrato)

*\* En principio, este bloque sería aplicable a los contratos suscritos con consumidores finales. En el caso de B2B, con el nuevo reglamento de la LOPD, no está claro que sea obligatorio incluir este tipo de cláusulas. Lo normal, con todo, es que aparezcan.*

❶ Identificación del responsable del fichero o tratamiento	nombre del prestador (no varía)
❷ Finalidad y usos de la información	
▪ Gestión / cumplimiento del contrato	sí (no varía)
▪ Envíos comerciales	sí / no
▪ Otras	sí / no
❸ Cesiones previstas	sí / no
▪ Finalidad (sólo de entre las indicadas antes)	...
▪ Destinatarios	...
❹ Información sobre derechos	
▪ Acceso, rectificación, cancelación, oposición	sí (no varía)
▪ Forma de ejercicio	por escrito / e-mail

### 6.3. Acceso a datos personales por cuenta de tercero

*\* Se trata aquí de las condiciones de protección de datos aplicables al acceso y tratamiento de datos personales que realiza en prestador por cuenta del cliente. Se trata de contenidos predefinidos ya legalmente (arts. 12 LOPD).*

❶ Delimitación expresa del responsable y del encargado	cliente y prestador (no varía)
❷ Limitaciones de uso y tratamiento de los datos	
▪ Limitación a finalidad de gestión del alojamiento web	sí (no varía)
▪ Sujeción a instrucciones del responsable	sí (no varía)
▪ Otras condiciones no previstas legalmente	...
❸ Medidas de seguridad	
▪ Definición del nivel de seguridad aplicable	básico / medio / alto
❹ Destino de la información confidencial después del contrato	destrucción / devolución



## 7. Modificación de las condiciones de prestación de los servicios

- |   |                                 |
|---|---------------------------------|
| ❶ Causas de modificación                              |                                 |
| ▪ Técnicas y de gestión                               | sí / no                         |
| ▪ Mejora y actualización tecnológica del servicio     | sí / no                         |
| ❷ Requisitos y condiciones formales                   |                                 |
| ▪ Comunicación  | por escrito / por e-mail        |
| ▪ Plazo de preaviso                                   | ... días                        |
| ▪ Otros   | ...                             |
| ❸ Efectos de la modificación de condiciones pactadas  |                                 |
| ▪ En caso de aceptación (novación del contrato)       | continuación del contrato       |
| ▪ En caso de no aceptación (terminación del contrato) | sin / con (... €) indemnización |
| ❹ Subcontratación y cesión de derechos y obligaciones | destrucción / devolución        |
| ▪ Prohibición de subcontratación y cesión             | sí / no                         |
| ▪ Necesidad de autorización del prestador             | sí / no                         |

## 8. Terminación y resolución del contrato

- |   |   |
|---|---|
| <p>❶ Causas de resolución y terminación del contrato</p> <ul style="list-style-type: none"> <li>▪ Expiración del plazo contratado (sin prórroga tácita)</li> <li>▪ Mutuo acuerdo</li> <li>▪ Incumplimiento de las condiciones pactadas</li> <li>▪ Quiebra o suspensión de pago de alguna de las partes</li> <li>▪ Causas legalmente establecidas</li> </ul>   | <p>por escrito / por e-mail<br/>         sí (no varía)<br/>         sí (no varía)<br/>         sí / no<br/>         sí (no varía)</p> |
| <p>❷ Condiciones de la resolución del contrato</p> <ul style="list-style-type: none"> <li>▪ Incumplimiento por parte del prestador             <ul style="list-style-type: none"> <li>▪ Reclamación previa por escrito (del cliente)</li> </ul> </li> <li>▪ Incumplimiento por parte del cliente             <ul style="list-style-type: none"> <li>▪ Reclamación previa por escrito (del prestador)</li> <li>▪ Preaviso</li> </ul> </li> </ul> | <p>sí / no<br/>         sí / no<br/>         sí (... días) / no</p>   |
| <p>❸ Deber de cumplir obligaciones asumidas previamente</p>   | <p>sí (no varía)</p>  |

## 9. Notificaciones

- |  |             |
|--|-------------|
| ❶ Direcciones de las partes a efectos de comunicaciones  | según § 0.1 |
| ❷ Obligación de mantener activo el canal de comunicación | sí / no     |
| ❸ Indicación de pautas de conducta (respeto...)          | sí / no     |

## 10. Ley aplicable y resolución de conflictos

### 10.1. Legislación aplicable

- Legislación española sí (no varía)

### 10.2. Reconocimiento de fuero o jurisdicción

- Sumisión a juzgados y tribunales de ... (partido judicial)

### 10.3. Procedimientos extrajudiciales de resolución de conflictos

- Procedimiento extrajudicial (arbitral) de solución de conflictos sí / no
- Carácter obligatorio / opcional
- Órgano (arbitral) o procedimiento designado ...
- Otras previsiones (p. ej. gastos derivados del arbitraje) ...