



together anywhere, together anytime



ICT-214793

TA2

Together Anywhere, Together Anytime

Large Scale Integrating Project
ICT – Networked Media

D8.2 Business Model – Feasibility Framework

Due date of deliverable: 31 December 2008

Actual submission date: 31 December 2008

Start date of project: 1 February 2008

Duration: 48 months

Lead contractor for this deliverable: TNO

Confidentiality status: Public



Abstract

The challenge of TA2 is to develop new, representative, ICT based media experiences that support the social interaction between families (or groups of people) who are already firm friends. This report provides a feasibility framework concept in order to evaluate the TA2 concept demonstrators. Goal of this framework is to assess the demonstrators on their feasibility and attractiveness for the end users.

Target audience

This deliverable describes critical issues for designing TA2 services and is interesting for everybody who has a stake in togetherness related to use and development of innovative, interactive digital multimedia products.

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Impressum

Full project title: Together Anywhere, Together Anytime

Title of the workpackage: WP8 Best Practice and Evaluation

Document title: D8.2 Business Model – Feasibility Framework

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This project is co-funded by the European Union through the ICT programme under FP7.

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Executive Summary

The challenge of TA2 is to develop new, representative, ICT based media experiences that support the social interaction between families or groups of people who are already firm friends. This report proposes a framework to evaluate the business feasibility of TA2 concepts. This framework should enable the TA2 project to assess the business potential of TA2 services in general, using the specific demonstrators as an illustration.

PITCH: a business feasibility framework

The challenge for TA2 is to develop application concept demonstrators that facilitate social interaction, but that also are seen as attractive, useful, natural and fun by the end users. To support the developing process of these services, there is a need for a better understanding of the critical business issues for such applications. Based on the Portfolio Innovation Check (PITCH) tool, we propose a framework that will be used to systematically assess the feasibility of TA2 services.

The PITCH-tool is based on five iterative steps. Due to the exploratory nature of this business feasibility study, we were able to specify certain steps in this methodology. We intend to specify the other steps during the remainder of the TA2 project. The list below describes to what extent each step is discussed:

1. Definition of service concept **YES**
2. Value proposition **PRELIMINARY**
3. Identification of viability and fit criteria; **YES**
4. Assessment **PRELIMINARY**
5. Analysis and refinement **NO**

Media enriched Communication versus Communication enriched Media

We make a distinction between two different business paths that lead to the capability of delivering the TA2 experience of togetherness. Based on market research and guided by the five TA2 demonstrators we make a distinction between Communication enriched Media (CeM) services, media such as games which are extended with communication functionality, and Media enriched Communication (MeC) services, where communication is enriched with media such as photos and videos.

Whether a provided service is considered a CeM or MeC service has business implications. Firstly, it has consequences for the most likely provider of the service. Secondly, it has consequences for the structure of the value network, the role of the service provider, the technological architecture and revenue models to be applied.

‘Candidate’ service providers

We identified console based gaming providers, telecom operators, Social Networking Sites and software vendors as ‘candidate’ service providers for the TA2 services. Services offering a CeM experience are more likely to be offered by gaming companies, whereas MeC like services are more likely to be offered by telecom companies. Social Networking Sites (SNSs) also have a strong position, as these organizations might be able to use their on-line social networks as an asset to facilitate social networking, recommendation and notification in a living room environment. However, the access point in the living room is likely to be controlled by either a network operator or game console provider. We therefore foresee that SNSs are likely to be critical business partners for both ‘candidate’ service providers, especially for telecom operators.



Critical business issues

Using the PITCH-methodology, we break down the critical issues into *fit* criteria that determine to what extent an investment or concept fits with the organisations' processes, capabilities and culture, and *viability* criteria concerning the payoff that the concept is expected to generate. The most critical business issues for TA2 concepts have been listed in Table 1.

Fit criteria	Fit with strategy of service provider
	Fit with current customer relationship
	Fit with current billing relationship
	Fit with existing business partner network
	Fit with existing technologies
Viability criteria	Market value potential
	Adoption by the end-user
	Attractiveness to advertisers
	Intensity of competition
	Copyright matters
	Funding requirements

Table 1 Critical issues for TA2 concepts

We identified roughly the same fit and viability criteria for CeM and MeC services. For both types of services it is e.g. important that the service is easy to use and that the target group is big enough. We aim to specify these criteria to the two types of services by adding weights per type of service, and operationalizing the criteria into specific scales per type of service.

Preliminary outlook

Given the technological requirements, market position and strategies of these organisations, telecom providers or game console providers both seem to be positioned as potential dominant players in providing a TA2 service.

Although the critical issues for the CeM and MeC services are similar, the distance to be bridged by CeM seems to be smaller compared to MeC services. Predecessors of TA2 CeM services are already on the market, and business partner networks have already crystallized. MeC services, similar to those envisioned in TA2, are mainly deployed as b2b services (videoconferencing), and for now lack the informal character that is central in creating the 'togetherness' experience. This does not mean that the applications developed within TA2 taking the MeC route are less likely to be introduced into the market place. As the exercise with the PITCH feasibility assessment tool shows, the business feasibility is determined by many factors.

Still, contemplating the feasibility of the TA2 concepts, it is important to realise what kind of party would be the most likely service provider and whether the service provided by this particular party could be feasible in terms of both fit and viability. The assessment might urge vision holders to go back to the drawing table or to identify another service provider ('sell' or 'spin out') to find the optimal combination of concept, service provider and value network that shows the most potential.



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Table of contents

- Executive Summary 3**
- List of Authors..... 5**
- Table of contents..... 6**
- Abbreviations..... 7**
- Definitions 8**
- 1 Introduction 9**
- 2 Feasibility of business models for TA2 services..... 11**
- 3 TA2 Service concepts 15**
- 4 Fit and viability issues..... 22**
- 5 Conclusions and recommendations..... 27**
- References 30**
- Annex A Interviewees 31**
- Annex B The Business Blue Print Method: internal analysis 32**
- Annex C External analysis checklist..... 33**
- Annex D Possible scaling of fit and viability criteria 34**



Abbreviations

B2b	Business to business
B2c	Business to consumer
CeM	Communication enriched Media services (e.g. gaming with instant messaging)
DRM	Digital Rights Management
HIS	High Income Segment
HRS	Highly Targeted Segment
ICT	Information and Communication Technology
IPTV	Internet Protocol Television
MeC	Media enriched Communication services (e.g. videoconferencing)
MSN	Microsoft Network
PITCH	Portfolio Innovation Check
QoS	Quality of Service
STB	Set Top Box
SNS	Social Networking Site
TA2	Together Anywhere, Together Anytime
UGC	User Generated Content



Definitions

Business Blueprint Method

Model that is used in this document to formulate internal issues ('fit' issues) that are input for the PITCH-tool

Demonstrator

A working prototype that enables its developers to demonstrate newly developed functionality applied in a specific context.

Fit

Term used in PITCH-tool to describe to what extent the TA2 service concept is feasible from an 'internal' perspective: to what extent does the service concept fit existing capabilities, strategies and culture of the service provider and its close partners.

Game

A game is a system in which players engage in an artificial conflict, defined by rules, that result in a quantifiable outcome.

PITCH-tool

Portfolio Innovation Check: tool developed by TNO that is used to assess the business feasibility of the TA2 services.

Togetherness

Feeling of being close to another person emotionally and/or physically, of staying or being 'in touch'.

Viability

Term used in PITCH-tool to describe the feasibility from an 'external' perspective. to what extent is the service concept viable on b2b as well as b2c markets?

Value network

A set of relationships between two or more groups or organisations. Value is generated through exchange of knowledge, information, goods or services.



1 Introduction

1.1 Objective

The objective of TA2 is to develop new, representative, ICT based media experiences that support the social interaction between families or groups of people who are already firm friends. With TA2 it should be easier for friends and families to remotely keep in touch and share moments of laughter and fun, and people should get a stronger feeling of being together while being physically separated.

An important challenge in TA2 is to develop application concept demonstrators that facilitate social interaction and are perceived as attractive, useful, natural and fun. The five demonstrators that are being developed in TA2 will be evaluated in terms of business implications at several moments in the research and design process to ensure informed design decision in all stages of the development process. The goal of the assessment is to inform the design process and identify drivers and bottlenecks for the exploitation of each of the concepts throughout the different stages of the development process.

1.2 Research set up

The business feasibility framework proposed in this deliverable will be used to systematically evaluate the feasibility of these applications. The framework was designed to assess the business feasibility for TA2 related services in general, transcending the specific functionality developed for the specific demonstrators.

The assessment of TA2 services will incorporate different vantage points, looking from a service perspective, a technical perspective, a financial perspective and an organizational perspective. Since the major part of the assessment of the TA2 concepts will probably take place in 2010, it should be noted that the framework that is being presented in this document is not the final version. As the TA2 project progresses, changes in the demonstrators and market developments could resonate in the feasibility framework which can change accordingly.

The approach that will be used to assess the TA2 services, is based on the PITCH-tool (Portfolio Innovation Check), developed by TNO and is discussed in more detail in Chapter 2. Our research set up is based on the first three steps defined in the PITCH tool: determine service concepts (identify 'candidate' service providers, identify value network), determine propositions and identify critical factors. The remainder of this report is devoted to the customization of the PITCH approach to the TA2 context.



1.3 Relation to other work in TA2

This report describes the business feasibility framework for TA2 services. This document is part of work package 8 (WP8)¹ and builds on the work of WP2² about the Design & Market Insights. Here, a number of critical business trends and issues have been identified by analyzing a number of so-called ‘proxies’ (video games, IPTV, Web 2.0 and video communication). Based on this document, we intend to inform and support the specification process of the demonstrators in WP3³, the design of the reference architecture in WP3, as well as the user evaluation work in WP8.

1.4 For whom is this work

Since business feasibility provides a better understanding of crucial business factors of TA2 services, this deliverable is relevant for all decision makers and designers in the TA2 consortium. Members of WP3 and WP8 in particular could take notice of its contents, as the feasibility framework has a strong relationship with their activities. This document is intended to be used in particular by WP8 team members to apply this feasibility framework for conducting their evaluation activities.

Furthermore, this document also intends to inform professionals in the field of media and communication such as telecom operators, gaming companies, Web 2.0 platforms and all organizations developing service concepts intending to create a user experience based on ‘togetherness’.

1.5 Structure of this report

This report will discuss the feasibility framework for TA2 services in more detail.

- A general introduction to the PITCH-tool and the steps and input that are needed for using the tool is provided in Chapter 2.
- The first step in this PITCH methodology – defining service concepts - is discussed in Chapter 3. Here a typology for TA2 services is identified and the ‘candidate’ providers and accompanying value networks for TA2 are described.
- Chapter 4 describes the fit and viability criteria that will be applied in the PITCH-tool, and briefly discusses the relation of the criteria to the service concepts that were introduced in chapter 3.
- Chapter 5 offers final conclusions regarding the feasibility framework and the recommendations for the future TA2 assessment and development activities.

¹ WP8 is responsible for best practices and evaluation within TA2

² WP2 is responsible for initial requirements and architectures within TA2. This work package was finalised in August 2008.

³ WP3 is concerned with application design and implementation (of the TA2 demonstrators)



2 Feasibility of business models for TA2 services

2.1 Business model background

A business model as a way for strategists, managers and business analysts to deal with innovation processes that take place in complex and networked environments characterised by many, often only loosely coupled, organisations, and by a rapid and largely unpredictable pace of technological development. It is in this context that business models acquire their strategic importance, functioning not just as cognitive models eliciting the way organisations do business under such circumstances, but as key management concepts guiding and shaping the objectives, plans and routines of organisations and even of entire ecosystems of organisations (Ballon & Arbanowski, 2005; Osterwalder, 2004). From this perspective we use the following definition of a business model:

A description of how a company or a set of companies intend to create and capture value with a product or service. A business model defines the architecture of the product or service, the roles and relations of the company, its customers, partners and suppliers, and the physical, virtual and financial flows between them.

Positioning business models in this way allows for identifying results to be used in defining strategies as well as service portfolio's (see Figure 1).

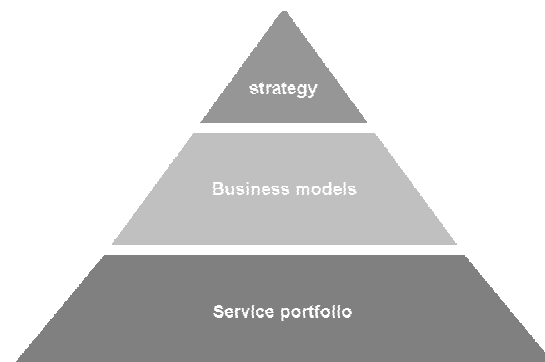


Figure 1. Positioning business models as a layer in decision making processes.

Source: Limonard & Esmeijer (2008)

2.1.1 PITCH

To determine the feasibility of the TA2 services and the business models that support them, we will apply the PITCH tool. The PITCH-tool (Leendertse & Pennings, 2008) has been developed by TNO and enables providers of new online digital services to make informed decisions about their service portfolio (Limonard et al, 2008). The tool can facilitate business model choices and determine the feasibility of service concepts and is best used after the creation of a business idea or concept and before the specification of a detailed business plan.

The PITCH-tool is based on an article by Tjan (2001) in which he distinguished the business feasibility of a service in terms of 'fit' and 'viability'. The term 'fit' describes to what extent the service concept corresponds to the existing capabilities, strategy and culture of the service provider. 'Viability' describes the feasibility of the service from a market perspective. By assessing TA2 concepts on these criteria, more insight is given into whether the service provider should 'kill', 'spin out' or 'redesign' the TA2 concept or 'invest' in a new TA2 initiative (see Figure 2)

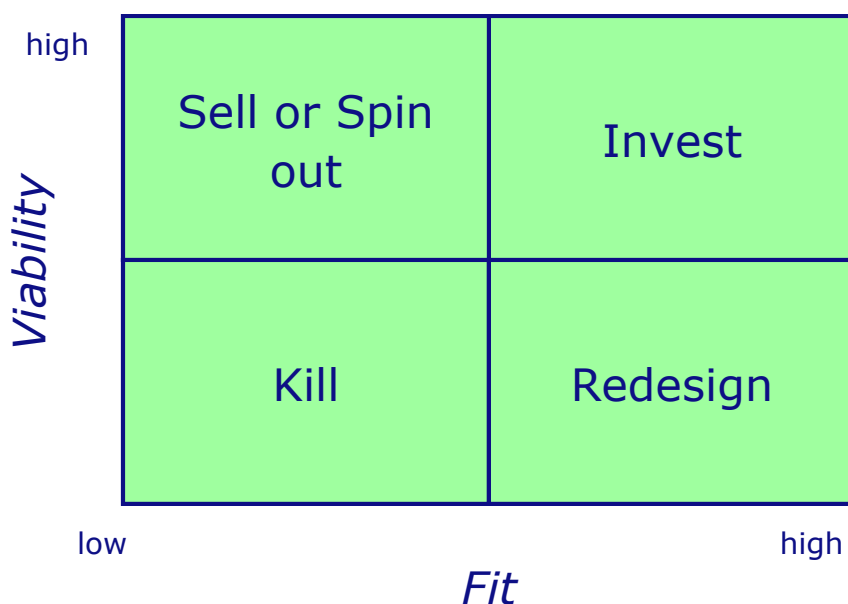


Figure 2. Business feasibility options. Source: Tjan (2001)

The business feasibility assessment is performed by translating service concepts into propositions towards different stakeholders. Taken together, these propositions are put to the test, and end up in one of the four quadrants mentioned above:

- **Kill:** means that the initiator should drop this service concept. The organizations do not have the assets to put it on the market, and the market is not ready either.
- **Redesign:** the partners are willing and capable to put it on the market, but need to step out of their ‘comfort zone’ and redesign the service concept to meet the demands of the outside environment. Redesign might include changing the service and user experience, changing the partnership (another service provider, other partnership), changing the organisational strategy.
- **Sell or spin out:** while the service concept seems ready to go to the market, the organisations delivering the service do not have the intention of capability to do this. The way forward is to sell or license the service to another service provider or partnership.
- **Invest:** If the service concept seems to fit the interests and capabilities of the partnership, and is ready to go to the market, the service concept needs investments. Time to market needs to be short, and investment capacity needs to be in place to further develop, differentiate and use this service concept to strengthen the service portfolio.

2.1.2 Why use PITCH?

The PITCH-tool can be used for multiple objectives:

1. *Feasibility check:* with the PITCH-tool the business and market feasibility can be assessed for each TA2 service concept.
2. *Facilitating social learning:* the process of formulating criteria and making the assessment forms an important aspect of the PITCH-tool.
3. *Eliciting service and business model design decisions:* for using the tool questions about how the service works and how it corresponds to a business’ strengths and the market opportunities need



to be answered. For answering these questions, explicit choices need to be made concerning how the service works.

2.1.3 The PITCH-tool in five steps

The assessment of the business feasibility of a service concept by using the PITCH-tool is performed in five iterative steps.

1. Determine service concept

For assessing the business feasibility of TA2 concept, the service concept and the organization that is providing the service is described. Moreover, the partners and the roles that are needed to provide the service are defined.

2. Determine value proposition

The propositions towards the stakeholders of the service concept are described. The stakeholders are the actors that make use of the service and/or generate revenues for the service provider. These could be for example customers or advertisers. Stakeholders that indirectly generate revenue (consumers by advertising) as well as stakeholders that directly generate revenue must be described.

3. Identification of viability and fit criteria

Before using the PITCH-tool the most critical criteria regarding the service concept need to be identified that are divided between fit and viability criteria. The critical criteria must have a high impact on the commercial success of the service and are often very uncertain.

4. The assessment

Per service concept the most important criteria are selected. After that, the actual assessment is performed by letting participants score each of the criteria on a five point scale. The assessment needs to be executed for all propositions and criteria.

5. Analysis and refinement

After the assessment the average scores of all the service concepts are mapped into the quadrant in figure 2. In this way the feasibility for all service concepts becomes clear. This outcome stimulates discussing how to change the service concept, business partners and criteria in order to optimize the business feasibility. From this step, the earlier steps can be performed again until a service concept exists that is accepted by all participants.

2.1.4 From the PITCH-tool to a TA2 feasibility framework

In this report the emphasis is on steps 1 to 3, with the aim to tailor the PITCH-tool to the TA2 context. In chapter 3 the results of steps 1 and 2 are described to gain better understanding of the TA2 service concepts on a more generic level than the actual TA2 demonstrators, their value proposition, the most likely service provider and the position of this provider within the value framework. In chapter 4 the critical issues (step 3) are identified. Together, these steps constitute the business feasibility framework for TA2. This generic framework will be further specified during the course of the TA2 project.



2.2 Methodology

To specify the different steps of determining service concepts, ‘candidate service providers, the value network and critical issues for TA2, the following activities were undertaken.

- **Desk research.** The knowledge that was described in Deliverable 2.1 “Design & Market Insights” has been used to formulate a typology for TA2 services and to identify initial critical issues regarding the business feasibility of the TA2 services.

For the formulation of viability criteria a common checklist for marketing purposes has been used. The checklist is often used to assess marketing and business plans for new services. Also, the Business Blueprint Model has been used to identify critical factors in different domains: service, organization, technology, financial.

- **Internal workshop with experts:** In an internal workshop, experts from different disciplines (technical, business, development and marketing) were invited to identify and validate a list of fit and viability criteria.
- **Interviews internal and external vision holders:** For further specification of the criteria, interviews with the TA2 vision holders were conducted. The types of interviews were mixed by inviting vision holders from multiple types of actors (e.g. game publisher, Consumer Electronics provider and Telecom operator). See Annex A for a list of the persons interviewed.



3 TA2 Service concepts

3.1 Introduction

In this chapter we identify and describe the first building blocks for the business feasibility framework – the service concepts. These service concepts - not to be confused with the concept demonstrators - provide the basis for identifying a generic business role model and ‘candidate’ service providers for TA2 services.

The service concepts are derived from the descriptions of the concept demonstrators, which we boiled down to two distinct types of services: CeM and MeC. These two types of services imply different roles to be fulfilled to deliver the TA2 experience, and different kinds of service providers and therefore different business and revenue models.

This chapter breaks down in three parts: Section 3.2 is devoted to a description of the concept demonstrators and the relation with the service concepts. Section 3.3 is devoted to defining a generic business role model and possible service providers. In section 3.4 we analyse the differences in service concepts, roles and service providers and draw conclusions on the commonalities and differences in evaluating the business feasibility of concepts developed in TA2.

3.2 From concept demonstrators to service concepts

In this section we discuss how we distilled the service concepts required to perform a business feasibility study from the concept demonstrators. Table 1 contains a brief description of the demonstrators developed in the TA2 project⁴ (next page). In drawing up a framework to assess the business feasibility of TA2 applications, these demonstrators function as the building blocks for a typology of service concepts. Instead of focussing on the business evaluation of specific demonstrators, a more generic typology is proposed to assess the feasibility of TA2 applications, as the demonstrators were never meant to demonstrate viable value propositions or services.

Also leaning on the conclusions of the TA2 Design and Market Perspective (D2.1)⁵, we make a distinction between MeC and CeM. D2.1 revealed that these two types of services are fundamentally different in the user experience that is delivered, attract different crowds for different reasons, and are offered by distinct service providers and thereby supported by different revenue models. Table 2 gives an overview of how this abstraction into two types of services fits the existing demonstrators, possible service providers and critical business partners required to deliver this experience.

⁴ Descriptions taken from TA2 Deliverable D2.3 Concept Demonstrator Descriptions, see http://bscw.teepees.eurescom.eu/bscw/bscw.cgi/d17739/TA2_D2-3_Concept-Demonstrator-Descriptions.doc

⁵ For full report see http://bscw.teepees.eurescom.eu/bscw/bscw.cgi/d17646/TA2_D2-1_Design%26Market-insights-final.doc or www.ta2-project.eu for pdf version.



Child's Play: *Jump Style:* the game provides a platform for teens to enjoy dancing and mime. For a first test-bed 'Jump Style' was chosen as dancing style that became very popular in Europe over the last years. The game knows about different modes. *Freestyle* that allows the player to just do their workout, *tournament* shows the players different patterns, moves or the like that have to be re-enacted/performed as accurately as possible. Other players take the role of the judge and rate the performance by giving points. These points can be named *fame* or *kudos*. Performing arts is much more satisfying if you can show off before your buddies. Therefore the game allows the player or a playgroup to setup a *concert* or *show*.

Sixth Agers: *Pairs:* elderly people often feel lonely and left alone when their children, grandchildren or friends move away. Because of diverse reasons, such as disabilities or lack of transport, it is hard or nearly impossible for them to get there on their own. One could say that this applies to everyone, which is true, but the difference is that for elderly persons it is often much harder to get in contact with others. Virtual Memory (or Pairs) is a game stimulating elderly people to meet with their friends and family and thus stay in contact with their old acquaintances. They have fun together although they are separated spatially and they even get the chance to meet new people. As the game does not have time limitations for the moves they can combine playing with chatting in a companionable atmosphere.

MyVideos: the goal of this scenario is to illustrate how a relatively dynamic social group – in this case, a collection of families that may otherwise have limited interactions – can be brought together in different living rooms by contributing media assets for common use. Unlike many collaborative editing systems, the primary goal of the content sharing is not the publishing of completed assets, nor the joint development of a collective common work, but instead to serve as a resource that can be used by members of the extended community to serve a collection of individual needs. By contributing assets (photo's, videos, text) each participant gives permission to reuse their own contributions within the community. It is assumed that each participant has the rights to contribute their own material. (This may not be the case if, say, five participants at a Rolling Stones concert contributed their videos, since the base content – the Stones' performance – is protected.)

Family Game: *Space Explorers.* Space Explorers is an augmented role playing game. The context for the role playing game happens to be space related. The key features of the game are that it 1) is played between people in different locations 2) that physical objects are used to augment the on line elements of the game and 3) that clear communication is designed to be a requirements of successful game play. The game is played in real time. As soon as a household starts a game, a mission is set for this space station from the central server. The crew members of the space station may want to start a mission on their own and try to achieve it, but normally they won't be able to succeed without contacting other space stations (TA2 households). Playing in isolation will cause technology to fail (power supply, comm. system, oxygen supply will breakdown) or dangers from outside to appear (meteors, worm hole ...).

Enhancing Social Communications. This application demonstrator is being used to explore how groups of people who know each other well can use technology to help them nurture their social relationships. Three sub scenarios are described to illustrate the working of this system: 1) Emotion sharing, 2) Chatting and 3) Jig Saw Puzzle. Emotion sharing is exemplified by a mother and daughter who keep in touch by controlled exposure of their emotions to each other. Icons (picture/video-frame with aura) indicates the emotion of people create a sense of group togetherness. Chatting allows people to have real-time based synchronous communication with audio-visual support. The icons (picture/video-frame with aura) indicate the presence/availability of people and should create a sense of group togetherness. These same icons might trigger people to start working on a jigsaw puzzle together, and information on presence/emotional state of participants might play a role in leaving/starting and meet around this puzzle.

Table 1. Brief description of TA2 demonstrators



<i>TA2</i>	<i>Demonstrators</i>	<i>“Candidate” service providers</i>	<i>Possible partners</i>
Media enriched Communication applications (MeC)	Pairs	- Network Operator - Social Networking Site	Casual gaming player,
	Enhanced Social Communication	- Network Operator - Social Networking Site	‘Ambient device’ vendors, ‘Skype like’ internet communication service provider
Communication enriched Media (CeM)	Space Explorers	- Console based Gaming service provider - Telecom operator?	Board Games vendor Telecom operator, Social Networking Site or other net native communication player (MSN, Skype)
	MyVideos	- Console based Gaming service provider - Editing tools provider (Adobe, ...) - Software/operating system vendor	Several: SNS, telecom operator, on-line portal, device manufacturer/vendor
	Jump Style	- Console based Gaming service provider - Editing tools provider - Software/operating system vendor	Several: SNS, telecom operator, on-line portal, device manufacturer/vendor

Table 2. MeC vs. CeM

Media enriched Communication (MeC)

One of the most prominent characteristics of communication between people with high trust relationships (‘strong ties’) is casual communication. Casual communication consists of ad hoc, informal signals. The motivation to engage in this kind of communication might be summarized as the need for validation: The need to be informed about other people’s activities, knowing that one is thought of and simply staying in touch are all elements that nurture a sense of belonging. This kind of impulse driven communication is the driver behind several ICT success stories such as the immense success of SMS, online social networks like Facebook where people leave short messages on each others profiles as well as the popular ‘microblogging’ site Twitter that is based on one simple question: ‘What are you doing?’. The experience of this kind of communication is increasingly enhanced by content. The appeal and value of these small informal exchanges is in its simplicity and its undemanding nature.



Translating MeC to TA2, we see “Pairs” (a casual game) and “Enhancing Social Communication” as the demonstrators which fall into this category. As this kind of informal communication is enabled by services offered from either network operators or SNS, we see these organisations as the most likely ‘candidate’ service providers for these services, either separately or in a partnership. Critical business partners for these potential service providers might be either device manufacturers or small and medium game developers, as they are able to organize this informal communication in terms of non verbal notification and communication (devices).

Communication enriched Media (CeM)

Content driven services are increasingly enriched with social features. This is what we refer to as CeM. The earlier TA2 deliverable D2.1 as well as the various interviews conducted with potential customers confirm that both professional content and user generated content are used as ‘conversation starters’. People express themselves or share experiences by posting photos or videos on their profile on a social network or on their blog. Content is one of the main ingredients that keeps interest or brand driven communities going. Gaming, but also interactive television are frequently named domains in which this development is manifest. Preliminary pilots show that the possibility to be updated on the status of so called ‘buddies’ in watching TV (knowing what they are watching) proved to be a key feature. In gaming, the social dimension is growing into a crucial feature in several ways. With the connectivity, provided by the Xbox, the Xbox 360, the PC and the PS3, online gaming communities have become common. On the other hand, a new generation of games focuses on the social experience, with the Wii and numerous casual on-line games as the most notable examples.

Translating CeM to TA2, we see Space Explorers, MyVideos and Jump Style as falling into this category. By providing (tools to work with) specific content, people are mobilized and triggered to collaborate/play. ‘Candidate’ service providers are mainly the big console based gaming service providers which are already introducing low tech TA2 like concepts such as the Buzz Lightyear Quiz between living rooms (www.buzzthegame.com) and games based on mimicking famous film scenes (www.xbox.com/en-US/games/y/yitm). Other possible service providers include software developers such as Adobe, but also system operators such as Microsoft.

3.3 Value network for TA2

This distinction between two types of services allows us to draw up a value network, the second part of defining a service concept. A value network enables business decision makers to identify and map possible partnerships of organisations that are able to deliver the TA2 experience. Based on the Network Value Analysis approach (Peppard and Rylander, 2006), we start by identifying the roles that can be taken up by different actors to deliver this experience. Research in the earlier TA2 deliverable D2.1 shows that for TA2 services, this is a highly networked process. It involves a high number of actors (including users in different roles), contributing most of the time in a non-linear, loosely organized manner. This leads to a high degree of interdependency between actors. Cooperation and competition might take place at the same time. Instead of creating value by managing the different roles separately, value creation is increasingly taking place in building and maintaining the relations between actors

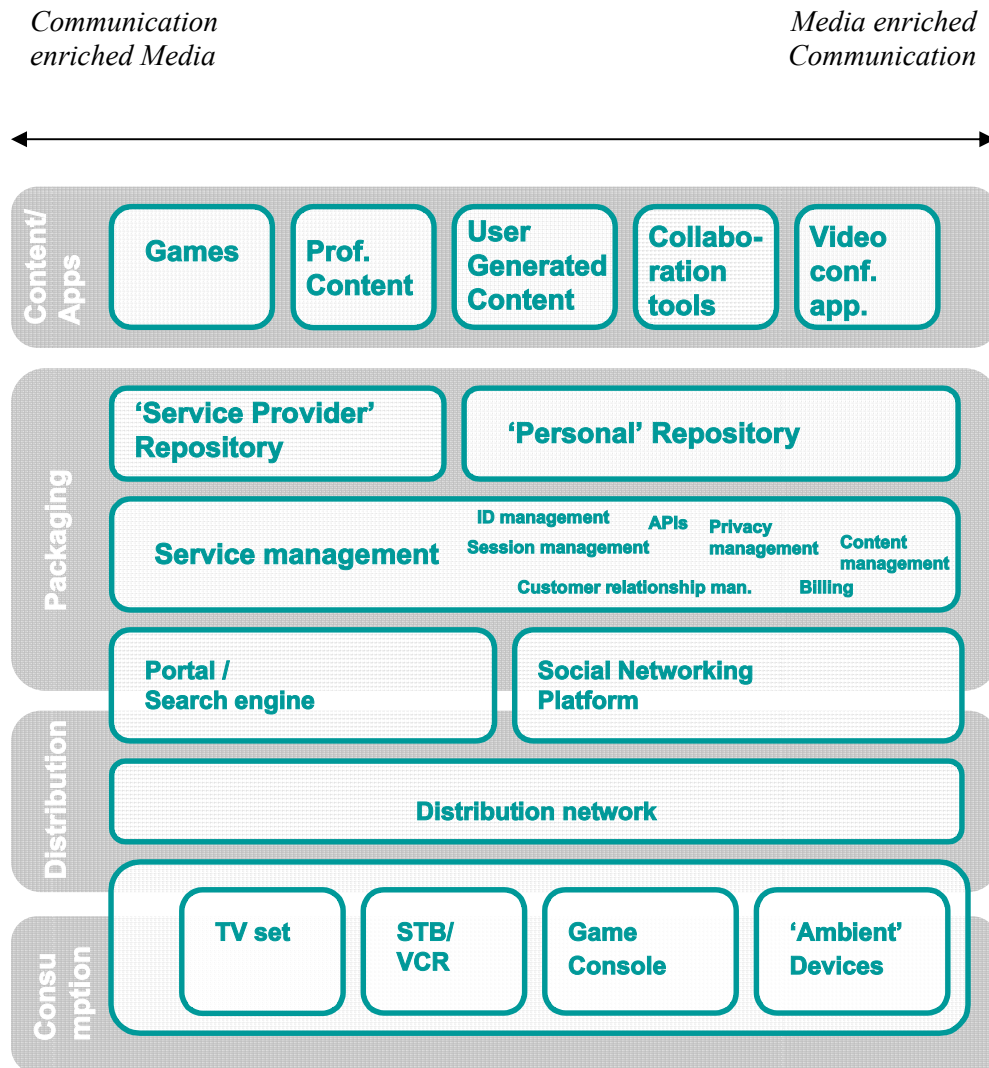


Figure 3. TA2 business role model

To scope and define the boundaries for such a network we use the MeC vs. CeM distinction, discussed in the previous section. The resulting high level value network for TA2 is presented in Figure 3.

The roles can be played by different partners in different types of partnerships, which can be either vertically integrated or ‘open’. Vertically integrated implies a closed partnership of two to three organizations which closely cooperate. We consider a relatively open business model to consist of four or more organizations which are more loosely organized and make use of standardized interfaces to cooperate. In the next section, we will briefly discuss two examples to illustrate the surplus value of such a value network approach for TA2.

Example: a possible value network for ‘Pairs’

Figure 4 shows a possible value network for an application similar to the TA2 ‘Pairs’ demonstrator. In this value network, we assume a telecom operator to be the service provider for this service, which is



delivered over a Set Top Box or other device closely coupled with the TV system. This is a typical example of a vertically integrated business model, with the telecom operator fulfilling several roles.

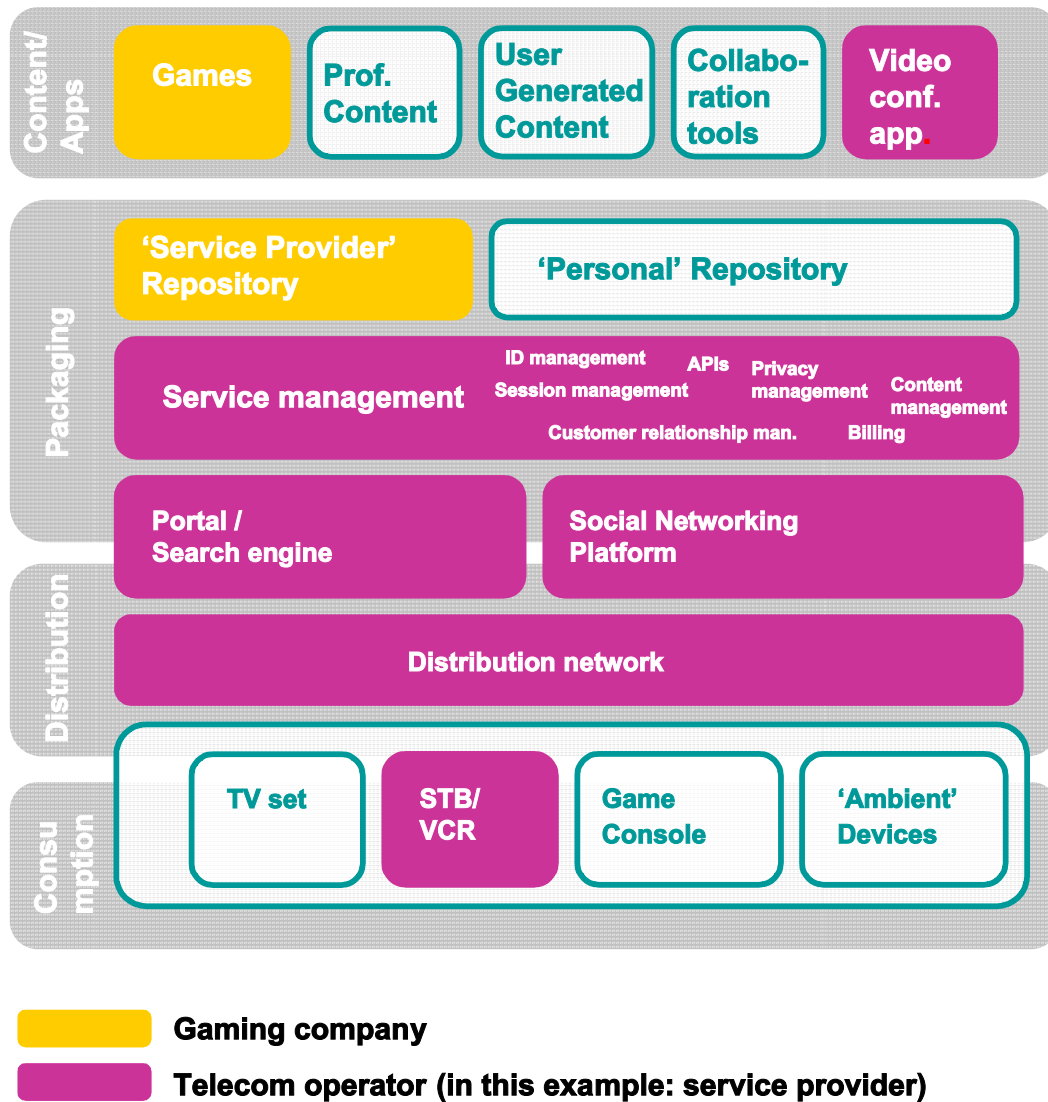


Figure 4. Value network for a service similar to 'Pairs'

On top of distribution, in this value network scenario the telecom operator also controls the portal and social network of buddies that are required to set up a session, the service management platform that enables the management of profiles, content (user generated content (UGC) as well as professional content) as well as the video conferencing functionality. The game – Pairs - is assumed to be one of the many games on this platform. In delivering this service, Quality of Service (QoS) in videoconferencing, 'co-presence' and possible other media enriched communication features are perceived to be most valuable, and therefore function as Unique Selling Point for this service. The game is but a means to a higher end, which implies a less critical and therefore less dominant role for the supplier of the game.



This type of value network has several business implications. First of all, a vertically integrated business models such as this one ensures that QoS can be guaranteed and is likely to be easy to use. On the other hand, the absence of ready made social network makes it difficult for the network operator to create critical mass in the number of possible buddies. In the past, this so-called ‘walled garden’ strategy proved to be not business feasible, as not even telecom operators with a domain market position were able to create this critical mass. Interoperability in at least these buddy networks is a first prerequisite to let this service function. In terms of revenue models, telecom native revenue models such as subscription or the different mobile prepaid or pay per session billing models seem an obvious choice here. Advertising is also frequently named as a complementary source of revenues. Although some developments point into this direction, advertisements might prove to be a major dissatisfier for users of these kinds of services as they are delivered in the (semi-) private space of the living room.

3.4 Conclusion

In this chapter we introduced two types of service concepts: MeC and CeM. These two types of service concepts were distilled from market and design insights as well as the definitions of the TA2 demonstrators.

Whether a service provides MeC or CeM has certain business implications. First, it has consequences for the most likely provider of the service. Second, and consequently, it has consequences for the structure of the value network and therefore the role of the service provider within this network and possible partners that are necessary to provide the service. For instance, MeC is more likely to be offered by a telecom operator or a social network whereas CeM is more likely to be offered by a game consoles manufacturer or a party who has experience with delivering editing tools or operating software. As discussed in chapter 3, the nature of the value network also differs because the service providers have different backgrounds and there need different kinds of partnerships.

Besides the type of service provider, the ‘openness’ of the business model is another business characteristic with far reaching implications for at he business model. Assuming that either a telecom operator or game console players is the most likely service provider, the question remains to what extent the business model will be fully controlled by this service provider. Game console players tend to offer a ‘walled garden’ environment based on proprietary technology and exclusive game titles. Telecom operators apply similar strategies when it comes to their IPTV offers, but are also exploring more open business models where content or game suppliers can opt in or out in offering their services through standardized interfaces, and communication platforms are interoperable. This last strategy increases the chance of attracting a critical mass of users as well as content suppliers, but decreases the opportunitie to lock in customers and implement viable revenue models.



4 Fit and viability issues

4.1 Introduction

In order to make a business feasibility assessment of the TA2 services, it is important to determine the most critical issues to structure the assessment. These critical issues are potential drivers or barriers for the commercial success of the service. A critical issue is a factor that shows a high degree of uncertainty (e.g. consumer demand is often considered volatile and unpredictable) and that has a potential high impact on the feasibility of the service.

As discussed in chapter 2, the PITCH tool evaluates a service concept in terms of critical issues along two axes: fit and viability. The fit criteria are qualitative factors that determine to what extent an investment or concept fits with the organisations' processes, capabilities and culture. Fit criteria are therefore mainly 'internal' factors. Viability criteria concern the payoff that the concept is expected to generate and are in principle more externally oriented. Also, in general the viability criteria are of a more quantitative nature than the fit criteria.

The next two sections of this chapter describe the fit and viability criteria that are expected to have the most impact on the different types of TA2 services⁶. In the last section we make a preliminary assessment⁷.

4.2 Fit criteria

4.2.1 Fit with strategy of service provider

The fit with the strategy of the service provider is an important factor in predicting a service concepts' feasibility. The service should be in line with the overall role the service provider aims to play in the value network and it should also be in line with the internal business process, the operational strategy. Possible synergy with the existing portfolio is also something that needs to be considered, as well as the fit with the service providers' own brand. These aspects determine the extent to which the concept fits with the organisation strategy. As discussed in chapter 3, the 'candidate' service providers best positioned to deliver TA2 services are telecom operators and game console players. Although these service providers do offer similar services (see D2.1), the services proposed here are new to them. Videoconferencing services by telecom operators are now mainly b2b offers, and games offered on game consoles do not offer the rich communication features that TA2 promises to deliver.

⁶ Please note, that in the actual business feasibility evaluation of the TA2 concepts later on in the project, not always all criteria may be fully applicable to all final service concepts, depending on the exact shape the concepts will take on during their detailed elaboration.

⁷ We need to note that the actual feasibility assessment of the TA2 services will be performed during a later stadium of the TA2 project. This implies that we need to reserve some room for flexibility regarding the final selection of the most critical issues as to adapt to possible changes in the TA2 services and market developments. Prior to the assessment, the issues will be operationalized into scales in order to score to what extent a critical criterion drives or impedes a specific concept to become commercially feasible. For example: if the potential to attract active users is a criterion, this might be operationalized into a scale as "the extent to which users are activated to make a contribution". In Annex D a possible, preliminary scaling of the criteria is presented.



4.2.2 Fit with current customer relationship

Fit with the current customer relationship is about the question to what extent the service may leverage the service provider's current customer relationship and user practices. The following aspects are relevant in this respect: customer lock-in, brand loyalty, kinship with content and kinship with the type of usage.

The nature of the customer relation regarding TA2 services is not clear yet, and will depend largely on the kind of service provider. Telecom operators often have 'functional' relation with their customer base, and apply a 'soft' lock-in (subscriptions) and bundling (triple play) marketing strategy to retain users. However, strengthening the customer relationship on a level of brand loyalty – often using media – is a new approach that is gaining ground throughout Europe. Game console manufacturers on the other hand actively use brand loyalty and reputation as a way to attract and maintain their user base and rely on proprietary devices and games to lock in users in a more technological manner. The critical factor is which combination of customer relation strategies will be successful for what service.

4.2.3 Fit with current billing relationship

Billing is another important aspect; especially for those services in which the revenue model requires periodical billing. Here, the degree in which a concept fits with the current billing relationship will depend largely on the following aspects: is there an existing billing relationship and if so, does it suit the target group? Also, the extent to which the billing method suits the service context is important, and the billing method as such should be (perceived as) a safe method.

The critical factor is how to combine the traditional billing relationship with attracting new audiences to new services. The existing billing relationship might offer possibilities as well as limitations. Telecom operator (monthly subscription fee or prepaid) has a different relationship than a game console manufacturer (one-time sale). These specific billing relationships will have to be taken into account when contemplating possible future billing scenarios for TA2 services.

4.2.4 Fit with existing business partner network

As described in chapter 3, the TA2 services will typically be delivered by a network of partners. The service provider may depend on multiple partners or on a single partner, but it is also possible that he can deliver the service all by itself, or could do so if needed. Anyway, an important question with respect to the determination of business feasibility is to what extent the service provider can rely on an existing business partner network. Each candidate provider has its own strengths and weaknesses which resonate in the value network that is required to deliver TA2 services. Telecom operators for example might be more inclined to partners with social networking sites to gain access to a critical mass of users, and casual gaming companies such as SPIL games. For game console players on the other hand, a large user base is not the first priority as the community members they attract are organised around their games. These service providers might want to partner with smaller technology players, or net native communication service companies such as Skype.

4.2.5 Fit with existing technologies

Though it is TA2's purpose to transcend the digitalisation of an already existing 'analogue concept' and to provide additional value to 'being present' over distance, the fit of a concept with existing technologies is an important factor regarding the feasibility of the concept. Firstly, this technological fit applies to the fit with the installed technology base controlled by the service provider, such as the capabilities of current STBs. Secondly, it is critical for TA2 services that they are interoperable with other (existing) formats, platforms, services and devices. In probably most business models, interoperability will be required on several levels: is it possible to use every kind of footage shot by different kinds of cameras in Jump Style? Is it possible to upload photographs that were taken on a



mobile phone to use in Pairs? Is it possible to import ones friend list from Facebook to Space Explorers? And how do all the devices link to the TA2 system?

4.3 Viability criteria

4.3.1 Market value potential

It is critical for TA2 services to eventually reach a critical mass of users. Market value potential will be determined by the expected market size and by the expected market growth. Market value potential can be assessed by looking at the size of the target audience that could be reached by the concept, while market growth will typically be expressed in a percentage. Also critical here is to get a grasp of the ‘tipping point’ for these kinds of services, i.e. the point where network effects will actually stimulate use of the service instead of holding it back.

4.3.2 Adoption by the end-user

For the adoption of the TA2 services by the end user, several factors are critical which are also discussed in deliverable D2.1. Ease of use of the services was repeatedly mentioned as one of the most crucial factors in letting the service succeed. The services must be easy and intuitive to use by the users and the users should feel comfortable with the technology behind the service. The fit between the skills and attitude of the target group and the user interface will determine whether or not the users will find the services easy to use.

QoS is the second factor related to the adoption by the user. The service delivered must be of high quality in order to create a feeling of ‘physical’ togetherness. On top of first order requirements such as ‘live’ communication (no delay) and the availability of the service are probably just as important, visuals (e.g. life size image and eye contact) and sound (e.g. clear sound) will play a major role in the perception of the user experience.

Thirdly, adoption of the services will depend on the incentives to get in touch, create and share content. Recommendations, notifications and other forms of social networking and social advertising are a first requirement. For example, does the service facilitate and support presence status (how do people find each other), asynchronous communication, different levels of dedication and different kinds of ‘maturity’ of communication? On top of these communication features, the question is to what extent the service provides is able to create an incentive for users to create and share content. Such incentives can vary in nature: functional, entertainment, status or financial.

Critical in adopting TA2 services is a sense of trust, towards the system as well as other families or communities that make use of the system. Service providers can take away the first hurdles by dealing with privacy issues properly in terms of a privacy policy as well implementing privacy enhancing functionality For example, is the privacy-strategy clearly defined and communicated, and are information and data being used in a transparent manner? Both in terms of communication and media, TA2 services have to deal with sensitive data in a sensitive environment, especially when there are children involved. Next to the passive digital footprint, it is equally important to let users maintain control over content and date they actively create and share, the so called active digital footprint.

4.3.3 Attractiveness to advertisers

Although advertising might not be relevant for all kinds of TA2 services, the attractiveness to advertisers could also play a role. As TA2 services combine both professional content and UGC, advertising might be a promise (a combination of premium and niche content) and risk (in terms of privacy). The critical factor here is the motivation for advertisers to communicate their message on the TA2 platform. The service might be aimed at a high income segment (HIS) or at a very specific,



highly targeted segment (HRS). But a service may also be attractive to advertisers because it is aimed at a large audience, or because it offers a new, innovative way of reaching a target audience.

4.3.4 Intensity of competition

The intensity of the competition is another relevant factor in predicting the possible success of a service. As we have mentioned, TA2 services as envisioned by the consortium partners do not exist yet. However, low tech services similar to those developed in TA2 are starting to see the light and are improving in terms of facilitating a sense of togetherness. TA2 could be considered a substitute for these kinds of services. On the other hand, TA2 services might be at the wrong side of the stick and these low tech emerging services will mainly prove to ‘substitute’ their previous versions. In the remainder of TA2, we will seek inspiration in Michael Porter’s five forces model (Porter, 1985) to assess the impact of this critical factor: direct competitors; power of suppliers; power of customers; competition from substitutes and competition from new entrants.

4.3.5 Copyright matters

Managing copyright issues is critical in making the business model for any TA2 service viable and sustainable. The biggest challenge is to enable circulation of both premium content and user generated content in this semi-private TA2 environment that is created. For the services to become attractive, both types of content need to be shared, altered, mixed (and shared again) in a social context. Is the service copyright strategy clearly defined and communicated? Is the right (distributed) DRM policy implemented in the technological architecture and are licensing constructions open and flexible enough? And last but not least: how do users maintain some level of control over their creations, mesh-ups and acquired professional content collection? Next to b2b agreements, users also may express a need for tools to manage and control their content.

4.3.6 Cost structure

To assess whether a concept is business viable, the cost structure is always a critical factor. TA2 services should be evaluated in terms of the required up front investments and operational costs. This last category might prove to be crucial, as the operational costs are not only generated in managing the service platform (example: scalability, QoS), but also the interfaces with other business players in the value network, management of copyright and privacy, and customer support.

4.4 Conclusion

4.4.1 The defined criteria are applicable to both categories of services

In Chapter 3 a distinction in TA2 services has been made between CeM, where media such as videos and games are extended with communication functionalities, and MeC, where communication is enriched with media such as video. The candidate service providers differ for these two services, as is described in chapter 3. However, the fit and viability criteria defined in this chapter are roughly the same for both kinds of services. For example, for both MeC and CeM it is important that the service is easy to use and that the target group is big enough. It is only the importance of the various critical issues that will differ.

4.4.2 Communication enriched Media seem to have a good position to offer TA2 services

In spite of the fact that the fit and viability criteria as such are mostly the same for the CeM and MeC services, it can be concluded with some reservations that CeM services seem to be better positioned to successfully deliver TA2 services than MeC services. Looking at their value networks and the role



they are expected to fulfil on the one hand, and the market developments of the various domains we identified as ‘proxies’ (as discussed in the earlier TA2 deliverable D2.1), the business model choices for CeM services seem to be more articulated.

For an important part game console providers will be candidate providers of the TA2 services. They might be labelled CeM service providers. Contrary to network providers and social networks, they already have extensive experience in offering media-rich services that stimulate ‘togetherness’, such as playing games together. Secondly, they already own assets for billing, distribution and devices with respect to content, while telecom operators and social networks will have to develop these. Furthermore, the user interface and capabilities of the services (and the accompanying hardware) from the CeM providers are developed further.

Since game consoles are generally bought and played by one and the same person, game (console) manufacturers already know their customers. Therefore, to a large extent there would be fit with current customer relations. Telecom operator fare less well in this respect, as their customers are undefined households who buy telecom services for the family as a whole.



5 Conclusions and recommendations

In the TA2 project new ICT based media services are developed that support the social interaction between families or groups of people who are already firm friends. Goal is to develop services that are feasible in terms of fulfilment by the company that is going to provide the service as well as in terms of the external market perspective.

We turned to the PITCH tool to come to such a business feasibility framework. This methodology was specifically designed to bridge the gap between business concepts and ready made business plans and –cases, and is relevant for service concepts in a pre- or emerging market phase of exploitation. The tool helps to evaluate to what extent TA2 services correspond to the existing capabilities, strategy and culture of the service provider (‘fit’) and to what extent the TA2 service is feasible from a market perspective (‘viability’). To formulate input criteria for the ‘fit’ and ‘viability’ issues, the Business Blueprint Method and the marketing planning checklist are useful tools.

The PITCH-tool is based on five iterative steps. In this report, we were able to discuss two of these steps extensively, touched upon two others, and excluded the last one:

- 1-Definition of service concept **YES**
- 2-Value proposition **PRELIMINARY**
- 3-Identification of viability and fit criteria **YES**
- 4-Assessment **PRELIMINARY**
- 5-Analysis and refinement **NO**

5.1 Service concepts: CeM and MeC

The notion of ‘togetherness’ is being explored further during the TA2 project (see deliverable D8.1, to be issued in February 2009). At this moment, however, some basic elements of togetherness that have been adopted in the different demo’s are e.g. the possibility to (co-)create and share content, casual communication, illusion of physical presence, playing together and having fun.

It is possible to distinguish two different paths that both direct to the experience of togetherness. Based on the five TA2 demonstrators we have defined a typology which distinguishes CeM services, where media such as games are extended with communication functionality, and MeC services, where communication is enriched with media such as video.

Media enriched Communication	Pairs Enhanced Social Communication
Communication enriched Media	Space Explorers MyVideos Jump Style

5.2 ‘Candidate’ TA2 Service providers and their value network

Whether a service provides MeC or CeM has certain business implications. First, it has consequences for the most likely provider of the service. Second, and consequently, it has consequences for the structure of the value network and therefore the role of the service provider within this network and possible partners that are necessary to provide the service. For instance, MeC is more likely to be



offered by a telecom operator or a social network whereas CeM is more likely to be offered by a game consoles manufacturer or a party who has experience with delivering editing tools or operating software. As discussed in chapter 3, the nature of the value network also differs because the service providers have different backgrounds and there need different kinds of partnerships. The nature of the propositions totally depends on this value network. Although we were able to scratch the surface and explore some propositions, these need to be specified later in the business feasibility assessment trajectory.

5.3 The critical issues

The critical issues for TA2 concepts have been listed in Table 3.

Fit criteria	Fit with organisation strategy
	Fit with current customer relationship
	Fit with current billing relationship
	Fit with existing business partner network
	Fit with existing technologies
Viability criteria	Market value potential
	Adoption by the end-user
	Attractiveness to advertisers
	Intensity of competition
	Copyright matters
	Funding requirements

Table 3 Critical issues for TA2 concepts

Notwithstanding the distinction between CeM and MeC, we defined the fit and viability criteria roughly in a similar fashion for both types of services. In evaluating specific service concepts later in the project, we will operationalize this general framework for these two types of services, by adding different weights to certain criteria, as well specifying specific scales that do justice to the fundamental differences between the two types of service concepts.

5.4 Assessment: a preliminary outlook

Overall it can be concluded that game console providers and telecom providers are in the strongest position to offer the TA2 services in the future. Chances for success seem to be far greater when a telecom provider or game console provider are part of the value network of a TA2 service.

Although the critical issues for the CeM and MeC services are roughly the same, our research suggests that Communication enriched Media seem to have a smaller distance to bridge in order to successfully deliver TA2 services than Media enriched Communication services. The CeM value network seems to have an advantage over the value network of MeC services in terms of installed technology and market evolution. Furthermore, they also seem to show more potential looking at current market developments of the proxy technologies that were discussed in the earlier TA2 deliverable D 2.1.



However, this does not mean that the TA2 demos that aim to realise a sense of togetherness by taking the MeC route are less likely to be more successful than the CeM based concepts. As the PITCH-tool analysis shows, the business feasibility is determined by many factors. Furthermore, it could very well be that certain elements of the different concepts show potential business feasibility while others do not.

Still, contemplating the feasibility of the TA2 concepts, it is important to realise what kind of party would be the most likely service provider and whether the service provided by this particular party could be feasible in terms of both fit and viability. This could entail that it is desirable to go back to the drawing table (as the PITCH-tool describes it) or to look for a different service provider ('sell' or 'spin out') to find a combination between concept, service provider and value network that shows the most potential.



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Annex A Interviewees

We interviewed the following people:

- Jos Renckens, vision holder within TA2, Philips, the Netherlands
- Alexander Frey, vision holder within TA2, Limbic Entertainment, Germany
- Clemens Tuerck, vision Holder within TA2, Ravensburger, Germany
- Rudo Wijbrands, KPN, The Netherlands



Annex B The Business Blue Print Method: internal analysis

In order to use the PITCH-tool properly, it is important to determine the critical ‘internal’ issues such as strategy and culture of an organization (mostly ‘fit’ issues in the PITCH-tool). During the process of identifying the most critical ‘fit’ issues, we have applied the Business Blue Print Model (Steen, Haaker et al., 2004).

The Business Blue Print model distinguishes four levels: value proposition, value network, functional architecture and financial model (see Figure 5)

1. *Value proposition*: the service as seen from the end user perspective. This aspect is used to demonstrate the value that the service provides to the customer, compared to other products and services. By answering this question, more insight can be created into the market need for the TA2 concept.
2. *Value network*: all actors & roles that are needed for offering the new service. To deliver the service, TA2 concepts may need partners for fulfilling roles such as ‘providing infrastructure’ and ‘promotion of the service’ that could not be realized possible alone. Also, the service needs to provide added value for all of the partners. By describing the value network the interdependencies between organizations and feasibility of the service becomes visible.
3. *Financial model*: the income and expenses or ‘revenue streams’ that can be expected from the new service. Questions such as price of the service and whether revenues compensate costs will be answered. By defining the financial model, more insight is created into the economic feasibility of the TA2 concept.
4. *Functional architecture*: the technology that is needed to deliver the TA2 service is described, such as network, devices and applications. Since multiple technologies can be used to realize the TA2 service, the functional architecture will discuss the suitability and feasibility of the chosen technical architecture.

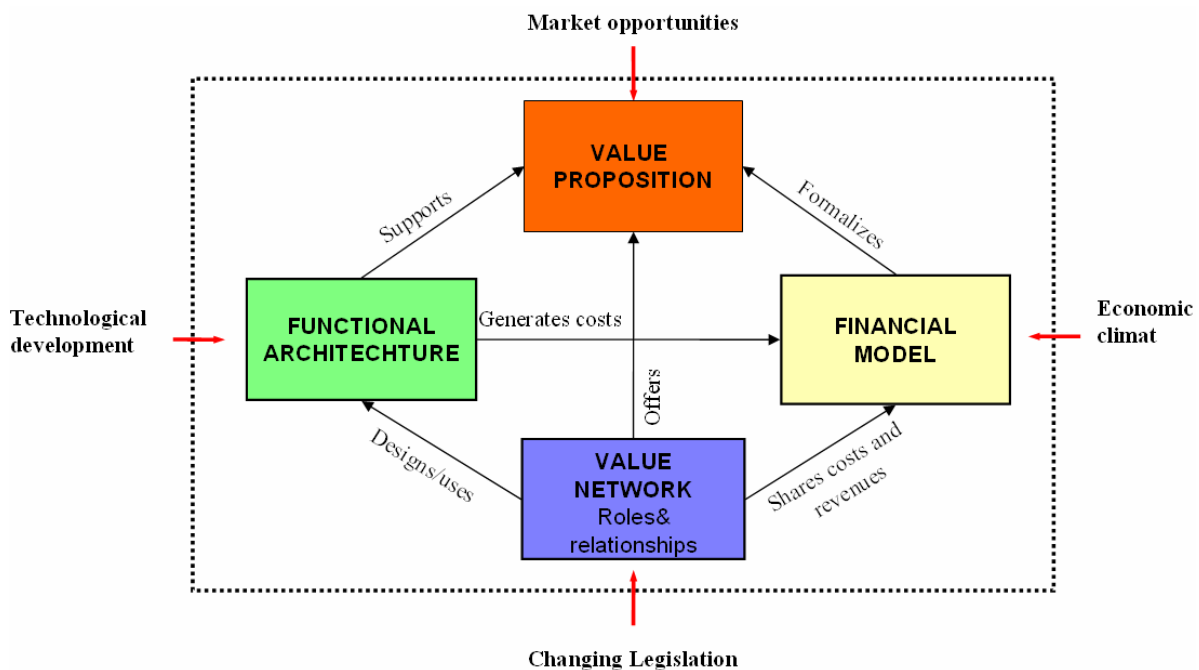


Figure 5: Business Blueprint Model aspects



Annex C External analysis checklist

In the book ‘Succesvolle marketingplannen; denken, kiezen, doen’ (Dingena & van Dishoeck, 1999) an extensive external analysis checklist is described. This checklist is commonly used in marketing planning to identify and describe the market situation and market developments. Based on this list the summarized list below was made. It contains the most important external issues and formed input to defining the viability criteria as described in chapter 4.

- Market situation, growth and trends
 - Potential market (total number of potential customers and revenue potential)
 - Market growth
 - Market segments and segments size
 - Competition structure
 - Distribution structure
 - Market trends
- Customer needs
 - Actual number of customers
 - What are the customers’ expectations?
 - What factors do influence the customer needs and demands?
- Buying portfolio and buying policy of customers
 - Do customers have a choice of multiple suppliers?
- Competition
 - What are potential substitutes for customers?
- Suppliers
 - How big is the power of suppliers?
- Other stakeholders
 - Who does invest in the service?
 - What is the relation with governments?
- Macro-economic trends
 - What is the effect on macro-economic developments on the target group and on the demand for the service? Think of DEPEST: demographic, economic, political, ecological, socio-cultural and technological developments.



Annex D Possible scaling of fit and viability criteria

As mentioned in the introduction to chapter four, the fit and viability criteria have to be operationalised into scales along which the different service concepts can be ‘scored’. In this annex, a possible way of doing that is described. Later on in the TA2 project, the final criteria with their scale will be determined.

Fit with organisation strategy (section 4.2.1)

In the evaluation of the TA2 service concepts this fit would be determined by asking the following questions:

- Is the service in line with overall role the service provider aims to take in the value network?
- Is the service in line with the internal business process (operational) strategy?
- Does the service complement the service providers’ existing portfolio?
- Does the service fit with the service providers’ own brand?

The answers to these questions would determine the extent to which the concept fits with the organisation strategy, according to the following scale:

- | | |
|----------|---|
| 1 point | None of the above questions answered with ‘yes’; |
| 2 points | One of the above questions answered with ‘yes’; |
| 3 points | Two of the above questions answered with ‘yes’; |
| 4 points | Three of the above questions answered with ‘yes’; |
| 5 points | All of the above answered with ‘yes’. |

Fit with current customer relationship (section 4.2.2)

Fit with the current customer relationship is about the question to what extent the service may leverage the service providers current customer relationship and user practices. This aspect will be scored by considering the relevance of the following aspects:

- Hard lock-in (e.g. subscriptions);
- Brand loyalty;
- Kinship with content;
- Kinship with type of usage.

The number of relevant issues would determine the extent to which the concept fits with the current customer relationship, according to the following scale:

- | | |
|----------|---------------------------------------|
| 1 point | None of the above aspects does apply; |
| 2 points | One of the above aspects does apply; |
| 3 points | Two of the above aspects do apply |
| 4 points | Three of the above aspects do apply; |
| 5 points | All of the above aspects do apply. |

Fit with current billing relationship (section 4.2.3)

The fit with the current billing relationship will be determined by means of the following aspects:

- There is an existing billing relationship;
- The relationship suits the target group;
- The billing method suits the context;
- The billing method is safe.

The same scale as before could be applicable:

- | | |
|----------|---------------------------------------|
| 1 point | None of the above aspects does apply; |
| 2 points | One of the above aspects does apply; |
| 3 points | Two of the above aspects do apply |
| 4 points | Three of the above aspects do apply; |
| 5 points | All of the above aspects do apply. |



Fit with existing business partner network (section 4.2.4)

With respect to the determination of business feasibility an important question is to what extent the service provider can rely on an existing business partner network.

This aspect could be scored along the following scale:

- 1 point A fully new partner network consisting of multiple partners needs to be developed;
- 2 points The existing partner network needs to be expanded with more than 3 new partners;
- 3 points The existing partner network needs to be expanded with 2 or 3 new partners;
- 4 points The existing partner network needs to be expanded with one new partner;
- 5 points No new partners are to be involved.

Fit with existing technologies (section 4.2.5)

With respect to fit with existing technologies, it seems important for the TA2 service concepts that:

- They are interoperable with respect to other (existing) formats;
- They are interoperable with respect to other (existing) networks;
- They are interoperable with respect to other (existing) platforms;
- They are interoperable with respect to other (existing) services.

As before, this criterion could be scored as follows:

- 1 point None of the above aspects does apply;
- 2 points One of the above aspects does apply;
- 3 points Two of the above aspects do apply
- 4 points Three of the above aspects do apply;
- 5 points All of the above aspects do apply.

Viability: market value potential (section 4.3.1)

The following two questions are relevant in determining the viability of the TA2 concepts and they could be scored as indicated.

a) What is the size of the segment audiences reached?

- 1 point Some customers;
- 2 points Tens of customers;
- 3 points Hundreds of customers;
- 4 points Thousands of customers;
- 5 points More than thousands of customers.

b) To what extent the market is expected to grow?

- 1 point No growth: declining market demand;
- 2 points Stable: no growth or decline;
- 3 points Modest growth (< 5% per annum);
- 4 points Moderate Growth (5 - 10% per annum);
- 5 points Rapid growth (> 10% per annum).

Viability: adoption by the end-user (section 4.3.2)

For the adoption by the end user, all aspects mentioned below are relevant. They are presented by means of a number of questions, the answers to which could be scored conform the following score list (unless stated otherwise):

- 1 point None of the aspects mentioned does apply;
- 2 points One of the aspects mentioned does apply;
- 3 points Two of the aspects mentioned do apply
- 4 points Three of the aspects mentioned do apply;
- 5 points All of the aspects mentioned do apply.

a.) Ease of use: considering the following issues, to what extent is the service easy to understand and use:



- The capabilities of the target group;
 - The user Interface has proven itself to be successful in the market;
 - Resemblance to the user experience of proxy-technologies;
 - Addition to the user experience of proxy-technologies.
- b.) Quality of service (QoS): the service delivered must be of high quality in order to create a feeling of ‘physical’ togetherness. The service concept scores high on quality with respect to:
- Visuals (e.g. life size, eye contact);
 - Sound (e.g. clear sound);
 - Perfect life (no delays);
 - Availability;
- c.) Communication characteristics: does the service facilitate and support:
- Presence status (how do people find each other);
 - A-synchronous communication;
 - Different levels of dedication;
 - Different kinds of ‘maturity’ of communication.
- d.) User incentives: to what extent does the service provide an incentive for users to create and share content?
- Functional;
 - Entertainment;
 - Status;
 - Financial.
- e.) Privacy matters: considering the following aspects, to what extent is privacy secured?
- The privacy-strategy is clearly defined and communicated;
 - Information and data are being used in a transparent manner;
 - Advanced privacy-management tools are available;
 - Privacy aspects are integrated within value network.
- f.) Possible thresholds: to what extent does the target group encounter any thresholds in order to use the service?
- Buying new hardware;
 - Buying new software;
 - Acquiring new knowledge;
 - Learning new skills.

Possible scale:

- 1 point All factors mentioned do apply;
- 2 points Three of the factors mentioned do apply;
- 3 points Two of the factors mentioned do apply;
- 4 points One of the factors mentioned does apply;
- 5 points None of the factors mentioned do apply.

- g.) Critical mass: to what extent market demand is dependent on (i) the penetration of other products (e.g. game consoles for demand of console games) and/or on (ii) the number of people using the respective service concept?

Possible scale:

- 1 point Heavily dependent on both factors mentioned;
- 2 points Heavily dependent on one of the two factors mentioned;
- 3 points Moderately dependent on both factors mentioned;
- 4 points Moderately dependent on one of the two factors mentioned;
- 5 points Dependent on neither one of the factors mentioned.



h.) **Price setting:** the prices of the services must be affordable for a large public in order to reach volume. To what extent are segment audiences reached by the applications willing to pay for the services?

Possible scale:

- | | |
|----------|--------------------------|
| 1 point | No willingness to pay; |
| 2 points | < 5% is willing to pay; |
| 3 points | < 25% is willing to pay; |
| 4 points | < 50% is willing to pay; |
| 5 points | > 50% is willing to pay. |

Viability: attractiveness to advertisers (section 4.3.3)

The attractiveness to advertisers may be determined by looking at the reasons why a possible a service concept may be interesting for advertisers:

- Because the service concept is aimed at a high income segment (HIS);
- Because the service concept is aimed at a very specific, highly targeted segment (HRS);
- Because the service concept is aimed at a large audience.
- Because the service concept offers a new, innovative way of reaching a target audience

This criterion could be scored as follows:

- | | |
|----------|--|
| 1 point | None of the reasons mentioned do apply; |
| 2 points | One of the reasons mentioned does apply; |
| 3 points | Two of the reasons mentioned do apply; |
| 4 points | Three of the reasons mentioned do apply; |
| 5 points | All reasons mentioned do apply. |

Viability: intensity of competition (section 4.3.4)

In this feasibility framework, the competition will be rated according to Porter’s five forces:

- Direct competitors;
- Power of suppliers;
- Power of customers;
- Competition from substitutes;
- Competition from new entrants.

The question asked is: to what extent competition can be expected by these five forces? The scoring of the answers could be as follows:

- | | |
|----------|--|
| 1 point | Competition can be expected mainly from one force; |
| 2 points | Competition can be expected mainly from two forces; |
| 3 points | Competition can be expected mainly from three forces; |
| 4 points | Competition can be expected mainly from four forces; |
| 5 points | Competition can be expected from all five forces at the same time. |

Viability: copyright matters (section 4.3.5)

Considering the following aspects, to what extent is the service copyright strategy:

- Clearly defined and communicated;
- Implemented in the technological architecture;
- Implemented in the financial model;
- Integrated within the value network.

Possible scale:

- | | |
|----------|---|
| 1 point | None of the aspects mentioned does apply; |
| 2 points | One of the aspects mentioned does apply; |
| 3 points | Two of the aspects mentioned do apply; |
| 4 points | Three of the aspects mentioned do apply; |



5 points All of the aspects mentioned do apply.

Viability: funding requirements (section 4.3.6)

The viability of the TA2 service concepts should also be evaluated in terms of the required investments, the operational costs of the service and the time estimated to achieve a positive cash flow.

a.) Required investments: how much funding is required up front to offer the TA2 service concept under consideration?

Possible scale:

1 point ('high') – 5 points ('low')

b.) Operational costs of service: How much money is required to run the TA2 service concept under consideration (operations costs, distribution costs, marketing costs, etc.)?

Possible scale:

1 point ('high') – 5 points ('low')

c.) Time to positive cash flow: if we place potential market value, market share and possibilities for cross selling against the costs, what is the indication of when the TA2 service concept under consideration will become cash flow positive?

Possible scale:

1 point > 5 years;

2 points 3 – 5 years;

3 points 2 – 3 years;

4 points 1 – 2 years;

5 points < 1 year.