



A Model for the creation of more young entrepreneurs in the game industry who specializes in the development of serious games

# FULL PRESENTATION

The GameWise SOSU Aarhus intro package:

GameWise application and budget GameWise full presentation GameWise WP GameWise in short

LEONARDO TRANSFER OF INNOVATION

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# GENERAL PRESENTATION

The GameWise goal is to start a tradition of close cooperation between educational institutions and the surrounding world of work with the aim of creating not only new jobs but also new companies by means of entrepreneurship. GameWise will do so by transferring methodologies from Spain and NL to Denmark, Norway and the UK, creating a model for systematic cooperation between educational institutions and private companies. The model will describe how "industry workshops" can form the framework for meetings between students and private companies with ensuing development of products for the companies.

For a good transfer of the methodology, GameWise will develop **pilot workshops** in the transferring partner institutions to give all partners sufficient insight to create the GameWise model. Afterwards GameWise partners make **pilot courses for TVET and tertiary education teachers** to secure model mainstreaming. The pilots will be based on action learning, so during the pilot course, the participants will work with, and learn how to establish a company network for the industry workshop, match the companies with the right students, run the workshop, and afterwards assist the students in a process, where they get assignments or jobs in companies, or become entrepreneurs.

To support the course participants, GameWise will establish a common communication platform through which they can get hot line help and coaching. Also, the platform will archive materials developed during the project. For many reasons, the project has chosen the games industry as test bed for the model: the partner institutions have specialized in this field for some years; it is one of the industries with the biggest growth potential in the world today, and with our level of education and infrastructure, Europe should be able to benefit from the growth in this market.

Besides, in a recent Green Paper, the EU Commission describes the need to pay more attention to Europe's potentials for cultural and creative industries (CCIs).

The GameWise project comprises 5 umbrella organizations from the gaming industry. They are silent partners, and their role will be to ensure contact to the end users: private companies in the game industry and to disseminate the project results through their extensive networks. Thereby, the finalised model will be transferred not only to all partner countries, but widely across Europe. The project handbook will be made as a manual for other institutions looking for a similar cooperation with private companies. Even if tested on the games industry, the model is easily transferrable to other sectors. Other dissemination activities will be the online presence of the project (homepage, Facebook, Twitter etc), printed flyers, and contributions to conferences and professional papers. Finally, the project results will be embedded in the partner institutions and form part of a new tradition of cooperation between institutions of education and the surrounding world of work.

# CORE PARTNERS

VidenDjurs - DENMARK Aarhus Social and Health Care College - DENMARK Fundacio Privada Universitat i Tecnologia - Barcelona SPAIN Stichting Hoogeschool voor de Kunsten Utrecht - Utrecht NETHERLANDS Norwegian Association for Distance and Flexible Education - Oslo NORWAY Bournemouth University - Dorset UK

#### ASSOCIATED PARTNERS

ComputerspilZonen - DENMARK Art Futura - Barcelona SPAIN 3D Labs - Girona SPAIN Dutch Game Garden - Utrecht NETHERLANDS TIGA - London UK

## BACKGROUND AND OBJECTIVES

In a recent Green Paper, the EU Commission described the need to pay more attention to Europe's potentials for cultural and creative industries (CCIs). The rapid rollout of new technologies and increased globalisation has meant a striking shift away from traditional manufacturing towards services and innovation. In this new digital economy, immaterial value increasingly determines material value, as consumers are looking for new and "enriching" experiences.

The production of games is central in this relation. In recent years, the industry has become one of the most important in the world. Worldwide spending on the gaming industry exceeded 67 billion dollars in 2010 (the Guardian), and this figure only covers the entertainment games. Another market for "serious games" (education, marketing etc.) is emerging, and with the same potential. In Europe, and particularly Denmark, we have a unique chance of being among the leaders here, because of a generally high digital literacy among our young people, and a very good digital infrastructure. In our school, VidenDjurs, we have specialised in educating youths in digital media, so we know that Denmark has the talents needed to stay among the world leaders.

But we also know that we have to move fast, because other parts of the world have discovered the potential of the industry, and have started taking action on it. Since the number of games companies in Denmark is small, we teach our students to become entrepreneurs themselves. We have established a "business precubator", where there are now 10 small entrepreneur companies, 2 of them have already published games in app store. However, their chances of survival outside the incubator are slim, because of lack of competences needed to run their company, insufficient networks and contacts to the surrounding business environment.

Our partners in Spain and Holland are addressing this problem by working systematically with linking producers to the end users. GameWise wants to adapt this model and supplement it with teacher training, to empower VET-teachers to work more closely and systematically with the surrounding world, not only about the education of our youths, but also about the creation of new jobs and new companies. After the project period, the model is easily transferable to other sectors as a good tool in the creation of new jobs and companies in the ICC sector, which might be Europe's best chance of staying among the economic leaders of the world.

GameWise will build on and adapt two methodologies to create a model for close cooperation between T-VET institutions and the surrounding world of work. They have been tested by our Dutch partner, HKU, and Spanish partner, FUNITEC in programmes where students worked closely together with private companies to develop end user products. Above partners will cooperate with all GameWise partners not only to make a transfer of their methodologies, but to create a model that encompasses:

1. Description of the establishment and testing of the physical environment where students meet end users to collaborate about making end user products. The plan is to make biannual sessions, and in the model, there will be a description of how to collaborate with end user companies about the sessions with students, how to start working more closely with end user companies with the purpose of spotting potential for the use of games products, be that serious or entertainment games, and also for matching students with companies for various tasks during the education of the students.

2. Systematic cooperation with end users either directly, or via umbrella organisations. To test this part of the model, GameWise is glad to have 5 big and important umbrella organisations as partners in the project.

3. A train-the-trainers module that gives T-VET teachers the competences needed to:

a) Establish and maintain an environment in which students collaborate with companies to create products that serve a real purpose for the end user.
b) Prepare students for a career as an entrepreneur, either in a separate company or in a cluster environment (business plans, networks etc.).
c) Prepare students for the participation in online networks to get new assignments or compose teams to make bid for big tenders.
d) Create active links to end users in the surrounding world.

The GameWise model has the games industry as its focus point, but the model can easily be transferred to other industries and sectors. Its main focus is not only the creation of new jobs, but also of new companies – and this in collaboration with the surrounding end users. We, and our partners, have experienced that this is possible if only we work with it systematically and teach our T-VET teachers how to do it. The technological development is so fast, that we cannot give our students the right education and competences without maintaining a close and mutually beneficial contact to the surrounding world of work.

#### TRANSFER

Sectoral: The primary cross sectoral transfer in GameWise is from university level to T-VET level, in Denmark (In the UK, the transfer is to a university). The methodologies that will be adapted and transferred in the project are from universities, HKU in The Netherlands, and FUNITEC in Spain. To secure a lasting impact of the transfer, the model will be mainstreamed by pilot workshops and pilot courses.

Before the start of the adaptation of the model, the key employees from the partner institutions will take part in pilot workshops at HKU and FUNITEC. With the knowledge from the workshops as a starting point, the key employees will start work on the adaptation of the model and the development of the project pilot courses. The first pilot courses will be in-house courses for the partner institution staffs, later the same pilots will be held for all interested institution for further cross sectoral transfer.

The secondary cross sectoral transfer is from the university sector to the private business sector. The methodologies have originally been created by universities and tested on private companies around the two universities. The GameWise project will make a broader transfer from the educational sector to the private company sector by means of a further development and testing of the new model in their regions, and by means of the 5 partner umbrella organisations that all have extensive networks.

The tertiary cross sectoral transfer is from the serious games sector to other industrial sectors. The new model will be described in a handbook which makes it easily transferrable to other industrial sectors looking for closer collaboration with institutions of education.

Geographical: The geographical transfer in the GameWise project will be from Spain (FUNITEC) and the Netherlands (HKU) via the partner countries to the rest of the EU. Both transferring partners have substantial experience in setting up industry projects where students collaborate with the end users/the industry in the serious games domain, and they will assist the receiving partners in DK, NO, and the UK in the process. By means of the dissemination activities via the 5 participating umbrella organisation and the project handbook, the transfer will take place across Europe.

Other: The results of this project will also be transferrable to other institutions in the cultural and creative industries across the EU.

FUNITEC's Media Dome is a workshop area where students and researchers work closely together in projects related to Multimedia and Serious Gaming. It has been conceived as a space to foster creativity and multidisciplinary work, clear key elements for a truly Multimedia project. In The Dome students and researchers work together in real media projects proposed by real companies by following a complete and realistic production pipeline. Therefore it is a real opportunity from both the points of view of experimentation and action learning. The Media Dome acts as an Interactive Learning platform and catalyst for the creation of applied Serious Games and uses the project based and action learning methodologies within this very creative, flexible and modular space.

From the Master program 'Creative Design for Digital Cultures' at HKU, the GameWise project will transfer pedagogies and learning methods for setting up close collaboration between the educational system and the world of work in the field of serious games development. This program has also inspired many students and graduates to establish their own company, and as the GameWise project will train teachers to be able to include entrepreneurship in the teaching to a larger extent, these results are of the highest relevance for the project.

The above listed materials are all serious games that have been developed by students as part of industry projects at the Media Dome and HKU's 'Master of Arts in Creative Design for Digital Cultures' respectively. In the GameWise project, they will serve as points of reference for the teachers who will be trained in developing industry projects in Denmark and the UK; both in terms of how the final products met the requirements of the external partner and how the development process was planned by the coordinating teachers at the Media Dome and HKU.

'De Blob' is an example of particular interest. The game was originally developed as a free downloadable game by nine HKU students. At the time of conception, sections of Utrecht were being rebuilt and the principal task in creating the game was to convey how the railroad station area of Utrecht would look in 10 years. The city of Utrecht has since adopted 'De Blob' character as its mascot.

The game has later been published for some of the major video game platforms (Nintendo Wii, AppStore, and Nintendo DS) and has formed the basis for the establishment of Romino Games at the Dutch Game Garden.

Enthusiastic frontrunners in institutions such as HKU and FUNITEC have seen the need for a closer cooperation between educational institutions and the surrounding world of work. To answer to this need, they have made industry projects to allow their students not only to meet with companies, but also to work with private companies to make real products that were in demand by the participating companies. Such an industry project can last from between 1 to 3 months, and during that time the students have frequent meetings with the end users to ensure that the product they develop will be put to use after the end of the project.

HKU and FUNITEC have made separate environments in which these projects take place, and they are constantly adjusting these to make them better suited for the purpose, but there is no material in the domain that explains in a structural manner how to set up and maintain environments suited for such business projects. Another limitation in existing pedagogical materials is that T-VET teachers know much about how to describe the surrounding world of work for their students, but the majority of them do not know much about how to get in touch with and maintain relations with private companies with the purpose of collaborating about the creation of new products, and again, no such materials have been developed yet.

Therefore, to ensure the permanent impact of the transfer of the model, the GameWise project will develop and hold pilot courses to teach primarily teachers how to use the entire model.

The GameWise pilot course didactics will be based on the action learning principle. This means that a part of the project pilot will consist in participants' actually setting up a business network for industry projects and making the framework for an industry project. Part of the course will be traditional class room work, and part of it will be online tuition mixed with peer activities. During the entire course, it will be possible for the course participants to get coaching from the course teachers. The materials developed during the course will be stored on an online communication platform for optimal knowledge sharing. After the end of the pilot course, the communication platform will remain open so it can be used as an expert panel, peer learning panel, so the participants can continue their knowledge sharing activities.

At the end of each pilot, the course will be evaluated, relevant adjustments will be made, and the final version will be described in the project handbook. Even if the pilot courses have been made in the serious games domain, the methodology is easy to transfer to other sectors, where no doubt close contact to the surrounding world of work is equally important.

#### CONSORTIUM

For several reasons, we believe that the partner consortium behind the GameWise project is a very strong one:

The partner consortium represents institutions at different educational levels: Aarhus Social and Health Care College and VidenDjurs are in the T-VET sector, HKU, FUNITEC and the University of Bournemouth are in higher education, and NADE is an adult education organisation. Besides, one of the functions of NADE is to be an umbrella organisation, so therefore NADE will play an important part in the project dissemination as well.

Relevant umbrella organisations participate as silent partners in the dissemination of the project results. They will place their entire networks of end users at the disposal of the project as they are convinced that the model for setting up industry projects will push game related educations in the right direction in order to contribute to the development of the European games industry. The umbrella organisations are: Dutch Game Garden from NL, TIGA from the UK, The Computer Games Zone from DK, and ArtFutura and 3D Labs from Spain.

All partners in the consortium have previous experience of international collaboration and are therefore aware of the potential problems in such circumstances and have had the opportunity to develop strategies to deal with them. The partners in addition have worked intensively on inter-cultural matters and have heightened awareness of effective strategies to deal with conflicts and possible misunderstandings. Good practice from previous projects will therefore be adopted by the GameWise project, including:

Ground rules: It will be important to discuss and agree explicitly on communication norms at the first project meeting. This will result in a personalised statement of 'netiquette' rules for the project.

Face to face meetings: The three face to face meetings will be the major decisionmaking and planning way stages of the project. The effectiveness of each meeting will be monitored through evaluation procedures determined in the quality assurance plan. Each face to face meeting will end with a clear action plan so that each partner knows what is to be done before the next face to face meeting. Partners will be encouraged to voice doubts, uncertainties, and disagreements as soon as possible so that these can be dealt with when they occur. This will be done through the use of standard moderation techniques. Overall the project will attempt to deal with the necessary work in the framework of Appreciative Inquiry, a positive approach employing the cycle of expressing wishes, planning how these could be realised, putting into practice and reflecting on the practice which in turn leads to the next round of wishes.

Communication at a distance: Communication between meetings will use low threshold applications such as blogs and browser-based online meetings. Email will be reserved for one to one communication while group communication will occur through a collaborative platform such as the open source Moodle or a free blog system. Experience from previous international projects shows that momentum can be maintained through live online meetings with sound and/or video and these will be organised on a monthly basis using Skype.

The only areas in which it is envisaged that tasks will be allocated to third parties will be guest lecturers at the face to face meetings to secure state of the art knowledge, and for the printing of the handbook.

## WORK PLANS

See the document GameWise WP.

## KEY OUTCOMES

*The GameWise model* For TVET trainers and institutions that wish to set up industry projects

#### Pilot course template

For TVET teachers and TVET institutions wishing to implement industry projects based on action learning

*Project pilot courses* For TVET teachers and TVET institutions

Online project presence (including public website, restricted access project workspace, restricted access course space) For TVET teachers and TVET institutions

#### Project flyers

For TVET teachers, TVET institutions, project consortium's network, conference attendees

*Best practice handbook* For TVET teachers and TVET institutions

## QA

The quality management process will establish a list of agreed quality indicators to measure progress in the project; one example of which would be that participants in the pilot courses start making a framework for an industry project and a related business network. The plan will map expected results and work packages against achievement. The quality management and assurance process will be a continuous activity throughout the lifetime of the project so that any adjustments which are necessary to get back on track are as small as possible because deviations have not been allowed to become large problems.

A final result of the quality management process will be an evaluation report. The evaluation report will be based on

- Feedback from partners after each face to face meeting about project processes
- Feedback from partners about online meetings about project processes
- Feedback from course participants on efficacy of the course

- Feedback from the institutions of the course participants on efficacy of the course

## IMPACT

Primary indicator for impact on target groups will be the evaluation of the national pilots which will be held in Denmark and the UK. At the end of each pilot there will be an evaluation of the course made by the participating teachers. As it is the

intention of the project to make the teachers who participate in the pilots into ambassadors of the GameWise teaching methods when they return to their respective institutions after the course, there will be a long term effect of the project as well.

The project will open national electronic platforms through which parts of the pilots will be delivered (blended learning), and after the end of the pilots, the electronic platforms will remain open and be manned by project partner staff as part of the project online presence. These platforms will then function as hotline and help desk for teachers working with the transformation of traditional teaching materials into the new format. Colleagues of the teachers having participated will be encouraged to use the platform as well. The platform will establish a FAQ (frequently asked questions) through which anybody interested can seek advice, and it will also archive as many examples of teaching materials as possible, and thus become a resource bank for T-VET teachers.

In addition to VidenDjurs which is in the vocational training sector, there are two university partners, one higher non-university education, one national adult education organisation, one additional Danish representative of the vocational training sector and 5 umbrella organisations. So, the partner consortium represents 5 EU countries with a broad representation of institutions in training at different levels as well as private and public associations. This means that there is a considerable potential for impact on a wide geographical scale, as each partner and umbrella organisation has an international network of its own, and during the project period as well as after the end of the project, each partner will include the results of GameWise not only in their daily activities, but also in their interactions in their respective networks. The nature of the GameWise model makes it easily transferable to other regions and sectors. Indicators for the impact will be the number of visitors to the project homepage and electronic platforms, downloads of newsletters and handbooks.

The pedagogy and didactics developed by the GameWise project will be implemented at the GameIT-College of VidenDjurs and at Bournemouth University. The teaching materials developed during the project period will be used in the teaching as soon as the first group of teachers have taken part in the pilots, and they will be part of the GameIT-College curriculum afterwards. After the pilots, possible adjustments will be made, and the ensuing courses will be offered to all VETinstitutions in Denmark by VidenDjurs, who will also be in charge of running the courses.

VidenDjurs will also encourage course participants to put teaching materials on the platform with an annotation, thus creating a resource bank for the swapping of teaching materials in the new format. Therefore, part of the attraction of participating in the courses of the project will also be access to the learning platform. The new teaching format will include not only game based learning, but also the inclusion of various web 2.0 tools in teaching. This allows sceptical teachers to make small steps in the new direction rather than completely throwing away the methods that they have found useful for many years. In the partner countries, the pilots will go through a similar adaptation and subsequent marketing as regular course offers at the respective institutions.

The GameWise website will have links to all the national learning platforms (one platform per partner country). The project will use open source and free software such as Moodle, which have earlier proved very useful for that purpose. For online meetings the project will make use of Skype, and information about the project will also happen through social media such as Twitter. Aarhus Social and Health Care College will host and maintain the project website and the learning platforms, also after the end of the project period and for as long as the courses are running.