
Eastern Europe Digital Media Industry Report

Summary, Analysis and Recommendations

6-1-05

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 ECONOMIC INNOVATION INTERNATIONAL, INC.

TABLE OF CONTENTS

1. Report Summary	1
1.1 High Level Approach.....	1
1.2 Itinerary	2
1.3 General Findings and Recommendations	3
1.4 Recommendations	4
2. Analysis and Recommendations	8
2.1 The “Virtual Studio”	8
2.1.1 Country Findings.....	9
2.2 Digital Media Parks	9
2.2.1 Regional Digital Media Park Overview	11
2.2.2 Country Overviews and Recommendations	12
2.3 Financing: Digital Animation Project and Business Park	16
2.3.1 Digital Animation Project Financing.....	17
2.3.2 Digital Media Park Financing	18
2.4 Education and Training	20
3. Appendices	23
A. Potential Investors and Funder/Supporters.....	24
B. Investor and Funder /Supporter Meetings.....	27
C. Studio Visits/Interviews	30
D. Film Finance Model	32
E. Recoupment Schedule	34

1. Report Summary

USAID's Europe and Eurasia Bureau has commissioned a team of digital animation and development finance professionals (the "Development Team") to explore the potential for the digital animation industry in Eastern Europe. Our mandate is to propose strategies for further developing the industry, particularly focusing on scalability, infrastructure, local and regional collaboration and financing strategies. The Development Team consists of Brad deGraf, Belden Daniels and Deborah La Franchi. The feasibility work consisted of Brad deGraf and Deborah La Franchi touring the region in March 2005. Their focus was to assess the capacity of existing studios in the region and the level of interest from the finance sector in supporting the industry's further growth and development. These site visits included meetings with more than 30 studios and media labs, and more than 20 leading potential investors in an emerging Eastern European digital animation industry.

As a result of these extensive meetings, it is our considered professional judgment that there is a real opportunity to develop a vibrant digital animation industry in the region, based on the region's natural aptitudes and the growth of its overall information technology capacity. While other countries and regions, particularly China and India, have certain advantages, Eastern Europe has its own unique strengths that can be maximized by means of the focused approach outlined in this report.

This Summary Report describes our findings and makes recommendations for next steps. We see a real opportunity to leverage this first brief survey which identified the high potential in the region into the beginning implementation of a Vision for funding an Eastern European Digital Animation Industry that is self-sustaining in the intermediate and long run.

1.1 High level approach

The underlying Vision for the digital animation industry in Eastern Europe is to foster the regional industry's evolution beyond low cost work-for-hire outsourced projects to become co-producers of larger film and animation projects. By exploiting the region's geographical and cultural proximity to America and the European Union (EU), and by participating in the financing of projects, the region can be positioned so that it participates in the digital animation enterprises and captures some of the economic value the studios make possible through lower costs.

Complementary to this vision is the notion of promoting regional collaboration to overcome the limitations of multiple small markets and talent pools, and achieve the scale necessary to compete globally.

Our efforts have been centered on five mutually reinforcing components:

1. *Established Expertise:*

Leveraging the existing strong filmmaking and animation cultures.

2. *Standardized Platform:*

Developing shared production standards, processes and resources to allow for collaboration among smaller studios so they can function as larger "virtual studios".

3. *Digital Media Parks:*

Encouraging and financing Digital Media Parks as industry nuclei in each country's main urban center, sharing standard processes and linking them together to promote collaboration.

4. *Production Financing:*

Financing work done in the region in exchange for participation in ownership of the intellectual property (films, etc.) created, capturing lasting value and creating demand for capacity.

5. *Training:*

Integrating education and training programs with production environments.

All five of these areas within the digital animation industry in Eastern Europe have real promise. Several financiers have expressed their interest in the development of this vision and, in collaboration with the country missions and US AID Washington, have indicated their interest in further considering providing support for and seed capital to these types of efforts.

1.2 Itinerary

Our initial focus has been on Romania, Bulgaria, Macedonia and Serbia. Expansion within the region, particularly to Croatia and Ukraine, makes sense if this effort continues.

We visited Bucharest, Sofia, Skopje and Belgrade, and met with the appropriate studios, investors and government culture ministries with whom meetings could be arranged. In each place, we were assisted and/or accompanied by local USAID or AID-financed competitiveness activity staff.

We also met before the trip in Washington, DC with the Small Enterprise Assistance Funds (SEAF), the World Bank's International Finance Corporation (IFC) and the Multilateral Investment Guarantee Agency (MIGA). At the end of

the trip, we met with USAID's regional office in Budapest, as well as the Hungarian Ministry of Culture. For a complete listing of all the meetings please see Appendices B and C.

1.3 Summary Findings and Recommendations

1. **Existing Capacity:** The existing digital media and animation capacity in each country significantly exceeded our expectations. Each country had a significant number of small studios (<10 people) doing very capable work. Most were dependent on very limited local advertising markets for revenues. Architectural visualization was an additional revenue source for some. In addition, Romania had two relatively large studios (>30 people) doing international television and film work and Bulgaria had one large studio (>100 people) doing international film work. All the larger studios were effectively owned by outside interests from the US, France or the United Kingdom. With a reasonable investment in standards, processes and training, the region seems very capable of executing ambitious projects.
2. **Digital Media Parks:** The concept of a Digital Media Park that could house multiple small studios and provide resources on a rental basis was very attractive to the studios in each country. Notably, Romania already has a fully commercial digital media business park that is 90% built and more than 90% pre-leased (www.factbook.net/iride_intro.htm). Macedonia has a building donated by the government and is close to having upgrades at least partially funded. All countries have large inventories of potentially suitable buildings, though many have unclear title. Partnering with universities also has strong potential. In addition, almost all of the private-equity firms we visited have the ability to finance real estate development projects. However, to our knowledge, as yet there are no specialized real estate funds such as those that drive the North American market. There is, therefore, an opportunity to create a risk-adjusted market-rate-of-return private equity fund specializing in Eastern European real estate that could advance the digital media park and economic development agenda much more rapidly than those markets will evolve without such a market-driven catalyst.
3. **Government Cultural Funding:** Most countries have some existing film financing funds capable of participating in a more comprehensive financing strategy for regional digital animation. The existing funds are generally targeted to all types of films, not just animation.
4. **Donor Agency Resources:** There are multiple donor agencies that might be able to contribute to the financing of one or more projects, including local USAID missions, EU funds for pre- and post-accession countries (e.g. European Agency for Reconstruction and Stability Pact), Swedish, Swiss and Canadian funds, etc.
5. **Film Financing Interest:** There is real interest on the part of virtually all of the investors we met with to invest in media projects. While they all expressed a lack of expertise in this realm of financing, we were pleased to learn that highly regarded and diverse private equity investors are willing to consider investing in

one or more film projects. In fact, every investor with whom we spoke did express interest in participating. The one consistent caveat they all expressed was their need to have a third party assist with the specific expertise to help with the due diligence process and the financial analysis of the specialized world of film investment. In the short run, this due diligence could be provided by a team of skilled professionals counseling the funds on digital animation deals; in the intermediate term, a targeted fund could provide that highly skilled due diligence and serve as the lead investor for a pool of internationally respected private equity funds already resident and doing business in the region.

6. **Regional Collaboration:** Most of the interviewees agreed that success in this industry depends on a regional strategy. There was a good deal of interest in the industry's potential to succeed at regional collaboration in ways that have eluded other industries. This is based on two advantages: the fact that Hollywood already produces animation-heavy films collaboratively among multiple studios (e.g. The Matrix), and, being fully digital, the industry is immune to shipping and customs issues. One urgent need for regional collaboration would be for sourcing projects. There was widespread agreement amongst the companies that they were not able, on their own, to market their services adequately to other regions of Europe or North America given the high cost.
7. **Training Networks:** Most countries already have "networked school-based telecentre" initiatives in progress (Macedonia and Bulgaria at least are wiring every school with broadband-connected computer labs). And Digital Media Parks are natural focal points for such networks, benefiting from and contributing to training centers located there.
8. **Gender Diversity:** Only a handful of the 30+ studios we visited had women in any significant management roles. Only two had women owners. They were also the only studios that had any significant percentage of women employees. The other studios had less than one female for every ten male employees.
9. **Piracy:** Professional quality digital animation software can be quite expensive, often \$5,000 and higher, or more than six months salary in some places. Many small studios are simply unable to afford this high cost. Typically, they have one or two legal copies and pirate the remainder. The larger studios claim (and we have no reason not to believe them) they are completely legal. Pricing needs to deal with that problem in a creative way so that startups can get off the ground and start making sufficient revenues to pay full price.

1.4 Summary Recommendations

Detailed recommendations are integrated in Section 2 (Detailed Analysis and Recommendations). The following are our high-level recommendations, broken down by category, and listed in order of priority.

Digital Media Parks

1. *Immediate Term:* Undertake a small follow-on effort to fill in the details on the opportunity and produce actionable steps. This would include:
 - a) Support for local teams in Bulgaria and Serbia to research available and appropriate properties, their attendant requirements and potential funders; and,
 - b) Support for the Development Team to work with them to craft the results into proposals that can be financed and acted upon.
 - c) Research and craft a regional strategy for supporting such efforts, to encourage commonality and synergies, avoid duplication of effort and create economies of scale. This could be part of 1b.
2. *Intermediate Term:* Develop a regional real estate fund to provide equity not only for digital media parks but economic development real estate projects in general. The broader initiative will spread risk and concentrate the real estate investment talent to develop business parks of all types, including digital media parks. This would accelerate economic development within the region, and would jumpstart the creation of digital media parks. This Initiative would mean importing the North American private equity real estate fund manager model to finance commercial and industrial real estate in a region that has already adopted the North American (now global) model for venture capital to finance emerging business enterprise. The upcoming Urban Land Institute conference in Istanbul, with a focus on the Eastern Europe Real Estate market is an opportunity to advance this process. Notably, a few highly regarded global private equity investors and fund managers have expressed interest in this idea, and we found many potential co-investors already in the region who would be interested in participating in this financing.

Building Capacity

1. *Immediate Term:* Develop a "production pipeline" R&D effort that will produce a standards document in support of regional collaboration between studios and digital media parks. This could include two industry experts working for a several months and culminating in a two-day meeting in the region with leadership from all the studios. The immediate task is to locate appropriate funding in support of this effort, perhaps by pooling small amounts from each participating country.
2. *Intermediate Term:* Develop a regional promotion campaign for raising awareness in the international markets, particularly

Hollywood and Europe. This might include an office in LA to be shared by all participants, a website that integrates the websites of all studios, representation at key trade shows, collateral material, etc. Guiding the regional stakeholders on how to raise the funding for this promotional campaign would be a role that could be played by the Development Team.

Education

1. *Immediate Term:* Connect and support the Bulgarian and Macedonian "E-Schools" efforts and identify funding for them to integrate the 3D @ E-Schools model into Bulgaria. This would be at a much-reduced cost for Bulgaria as the design of the program will be leveraged from the learning and process developed in Macedonia (see below.)
2. Identify funding to create a scholarship program for female graduates of 3D @ E-Schools to attend the Chiron training center in Belgrade, in support of greater gender balance.
3. *Intermediate Term:* Research potential relationships with universities to find immediate synergies with the digital media parks and the potential for shared curricula with 3D @ E-Schools, Chiron and other training efforts. The art university at Novi Sad, and the Dramatic Arts department at the University of Art in Belgrade are both very promising, and there are no doubt others.

Film Project(s) Financing

1. *Immediate Term:* Secure commitments totaling about \$5 million for a film project to start this year. This would entail the Development Team returning to the region. We believe financing a film project is realistic and achievable. At least one potential project is currently worth considering. Brad DeGraf will be in Europe early-mid June and can explore this financing with several potential investors. This potential project may or may not be the ideal project, but it is potentially well suited as a prototype project that can be learned from while more measured processes are developed. Finally, its economics look promising.
2. *Intermediate Term:* If the results are positive in general, but not necessarily in favor of the potential project, then the more intensive process of identifying other potential projects and making funding decisions about them must be undertaken.

Again, we found real interest on the part of virtually all of the investors we met with to invest in media projects. Their consistent concern for having a third party assist with the specific expertise to help with the due diligence process and the financial analysis of the specialized world of film investment could be attended to in the short run through a team of skilled professionals counseling the funds on digital animation deals. In the intermediate term, a

1. REPORT SUMMARY

targeted fund could provide that highly skilled due diligence and serve as the lead investor for a pool of internationally respected private equity funds already resident and doing business in the region.

In Summary, we believe that the *Immediate and Intermediate Opportunities* outlined above would be supported enthusiastically, both conceptually and financially, by local USAID missions, government ministries and other stakeholders and investors we have identified and interviewed. A small amount of regional funding from USAID would, however, be invaluable, if it were at all possible, in making the transition from this first brief survey of the high potential to the beginning implementation of a Vision for funding an Eastern European Digital Animation Industry that is self-sustaining in the intermediate and long run.



2. Detailed Analysis and Recommendations

The analysis and recommendations below cover four categories: overall capacity and capability; digital media parks (supply/demand and financing); financing of film-related projects; and, education. We treat each of those with an overview, a breakdown of our findings in each country and suggested next steps.

2.1 The “Virtual Studio”: Building Local and Regional Capacity to Compete

One of our primary tasks was to assess the capacity of the region to take on significant production efforts, such as the production of a fully 3D-animated feature film. We found that capacity, especially in Romania and Bulgaria, exceeded our expectations. Therefore, the foundation exists to scale up from this base throughout the region.

We spent 2-3 days in each of the four initial target countries (Macedonia, Romania, Bulgaria and Serbia) to become familiar with the existing studio capacity in these markets. We met with all of the significant production companies in the major centers, with very few exceptions.

Since the region is far less homogeneous than China and India, it will be difficult to compete on scale and price. So in Eastern Europe, a different approach is necessary, in which individual smaller studios distributed around the region can work on projects suitable to their size, and, by sharing common production standards and pipelines, can band together to do larger projects.

Fortunately, Hollywood is already very comfortable with this approach, aka the “virtual studio”. Movies like *The Matrix* and *Sky Captain and the World of Tomorrow* are routinely “farmed out” to multiple (often a dozen or more) small studios, each of which does its own part. If it can be done in Los Angeles, it should be achievable in Eastern Europe.

Three complementary initiatives, as detailed in the following sections, that would support this approach are:

1. A network of Digital Media Parks in the major urban centers (see 2.2 below)
2. A shared “production pipeline” that utilizes standardized processes, formats, protocols, etc.
3. A systemic approach to training throughout the region (see 2.4 below)

In sum, the region lacks experience and expertise in production management for large projects, but has the talent and resources to undertake larger-scale projects if this management and coordination is addressed through training and knowledge transfer from outside experts.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

2.1.1 Country Findings

Romania

Similar to the other countries, Romania has about a dozen small studios doing very competent work. Generally, these studios have a core staff of three to five people, augmented by freelancers on an as needed basis.

In addition, we found two companies, Dacodac and Bravo, doing more significant work. Dacodac, owned by French company, Millimage (www.millimages.com), is producing a feature film called “*Piccolo, Saxo et Compagne*”, and employs about 50 people. Bravo Studios (www.bravo-studios.com), owned by UK-based Touchwood Studios, is producing a television series (e.g. *Tractor Tom*) and has a staff of 25-30.

Bulgaria

WorldwideFX (www.worldwidefx.net), is by far the largest studio we encountered, is owned by low-to-medium-budget film producers Nu Image/Millennium (Steven Seagal films among others) and they employ over 100 people. They have an intensive training program.

Macedonia

Macedonia is significantly smaller than the other three countries but is doing quite well and outperforming in some areas. Brad deGraf has been directly involved in assisting local stakeholders to nurture a local talent pool (See section 2.4 below), establishing a Digital Media Park (See section 2.2 below) and developing a strong pipeline of international projects.

Serbia

Belgrade was perhaps the most cosmopolitan and accomplished of the four, with a wider variety of capabilities, though we found no productions on the scale of Romania and Bulgaria. The smaller scale of the productions is likely due to the political disruptions that have taken a serious toll.

It is our confidence in these core findings as to the underlying talent base outlined above, that form the basis for the detailed recommendations in the following sections focused on next steps for financing, digital media parks and education/job training.

2.2 Digital Media Parks (“DMP”)

The core underpinning of a Digital Media Park (“DMP”) is that the location has amenities and synergies that focus specifically on unique needs of digital animation production. This often requires intermittent access to resources too expensive for small studios to own. A building that functions as an incubator and nucleus of a local digital entertainment industry would be a very valuable resource that could pay for itself through rentals.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

In creating these types of business parks, local government can often be approached. They have unused properties that, if the title is clear, can provide an inexpensive starting point. Technical assistance funding from donor agencies and/or government commerce and education ministries along with private-equity investment can bring them to basic operational levels. From there, private investment in the studios and increased project flow can grow their activities. It is important to note that these types of facilities do not necessarily require donated land or government facilities. Conventional financing very often can finance these types of facilities. There are numerous precedents, such as the Saul Zaentz Film Center (<http://www.zaentz.com/facilities.htm>) and the Media Centre in Huddersfield, UK (<http://www.the-media-centre.co.uk/>) which can serve as models. Finally, given the broad range of private investors in the region with an interest in financing the real estate components of a digital media park, and other economic development-generating real estate activity, the intermediate term ability to create a viable risk-adjusted market-rate-of-return private equity real estate fund based on the North American model seems quite reasonable.

Components and Benefits of Digital Media Parks

Studio space for rent

Any qualified studio should be able to rent studio space there at a lease rate that is affordable to the smaller-size studios.

Central services

Like any incubator, the building should have basic central services like phone and communications infrastructure; fax machine, copy center, conference room, cafeteria, client services, screening room, etc.

Co-Location Synergies

The benefits to firms co-locating within a business park not only provide lower costs and higher quality facilities but they provide for opportunities to better market themselves to foreign productions and the ability, through better networking, to undertake larger productions through the shared capacity of the other tenants.

Regional and Educational Networking

A regional strategy would allow such Digital Media Parks to be networked together to function as a whole when appropriate. Also, integrating the Parks with educational and training programs, and in particular with local universities has significant benefits in creating a whole greater than its parts.

Rental

The building houses resources that no one company can afford to own, but can pay to rent it on an as-needed basis. This would include: large stages, green- and blue-screen stages, first-class lighting equipment, cranes and dollies, cameras, recording booths, sound-editing equipment, extraordinary power requirements, etc.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

Additionally, all the computers in the facility could be organized into a distributed supercomputer for large-scale computation tasks. This would be particularly useful as a “render farm” for calculating the frames of a movie.

Training center/ Theatre

A flexible space for training would be a valuable resource. It would allow collaborations with academic partners, and would facilitate development of new skills and talent as they become necessary.

Co-locating training programs within a Digital Media Park is very beneficial. Placing the trainees within real job situations, through internships while training, is also a win-win. Trainees get to learn in the context of real work, and productions can transition them into productive work quickly.

Public Events

Done right, the facility could support cultural events such as film screenings, parties, etc.

2.2.1 Regional Digital Media Park Overview

Each of the four countries has a strong demand for the type of high-quality, modern facilities outlined above. Almost every studio indicated a desire to have more modern/functional facilities and felt that a closer network of other companies would benefit their own business. Very few expressed any concern about locating close to potential competition. In fact, some mentioned, given their own limited capacity, they would be better positioned to take on larger projects if they had other aligned companies with which they could partner and share the work. If there were ever the opportunity for the advantages of “agglomeration”, digital animation regionally and globally is it.

From our outside perspective, one the largest impediments to attracting European or North American digital animation work for some of these firms dealt with the “first impression” of their facilities. Some studios were located in extremely dilapidated buildings in difficult to find residential communities. The first impression, from seeing these facilities, would certainly lead a potential client to question the studio’s level of professionalism. That said, upon entering the studio, reviewing their work and talking to staff, it became clear that the quality of the work was often extremely high. Modern facilities such as those provided by a digital media park will positively impact a clients’ perception of the studio’s capacity and quality, thus directly benefiting the studios from a marketing standpoint.

2.2.2 Country Overviews and Recommendations

As the situation within each country varied, we have provided the analysis and recommendations on a country-by-country basis below:

2. DETAILED ANALYSIS AND RECOMMENDATIONS

Romania

Romania provides a case study on the demand and feasibility of business parks in Eastern Europe. The Irde Business Park is being developed just outside the core of Bucharest (www.factbook.net/iride_intro.htm). The larger business park includes a 100,000 square foot building dedicated and equipped for digital animation companies. It is important to note that this facility has multiple tenants, was 90% pre-leased before construction started and provides all the types of amenities previously mentioned.

A few very important distinctions and lessons about this project should be noted:

1. *Market-Rate Financed Deal*

This real estate project was financed entirely through the market. There was no land donation or subsidy provided. A private-sector British developer, Andrew Speer, identified the property (former TV CRT production facility), negotiated the purchase, received equity financing from GED Capital and pre-leased the facility.

2. *Very High Equity Requirement in Eastern Europe*

The developer was required to have 50% equity in the deal, despite having 100% pre-leasing. This points to a larger economic development challenge in Eastern Europe as the region attempts to revitalize and reposition abandoned factories and former defense-manufacturing facilities. A 50% equity requirement is very challenging. In North America and Western Europe, 20% to 35% would be far more typical. A 50% equity requirement will greatly hinder the number of similar projects that will be undertaken. As developers in the region build a track record over the next ten years, we would anticipate this required level of equity to drop. However, the challenge, in the meantime, is two-fold:

- a) Developers typically have great difficulty coming up with the equity (even at the 20% to 35% level), and,
- b) There are limited equity sources that provide “active” management that would enable debt funders to feel comfortable with a higher level of debt and lower level of equity (See Financing Section). Again, this is exactly the role that a North American style risk-adjusted, market-rate private equity real estate fund is designed to address, and that in our professional judgment is now a likely viable option in Eastern Europe.

3. *Excess Demand for Digital Animation Space in Bucharest*

Even with the build-out of this 100,000 square foot facility, the majority of studios interviewed will not have access to this space as it is fully

2. DETAILED ANALYSIS AND RECOMMENDATIONS

leased. A British-owned digital animation company that will employ upward of 200-300 people at the site will be one of the main tenants. It should also be mentioned that given the international foundation of this company and its size, it is able to pay market rents. Lease rates at this level are likely not affordable to the smaller studios (although we did not verify this), thus meaning that other low-interest or subsidized components for a follow-on business park catering to smaller local firms, may be needed in order to *keep the rents at affordable levels*. These smaller-local studios still need this similar type of modern and fully equipped space to better grow their opportunities and business. Our approach is to understand precisely what the needs and resources of these smaller digital animation firms are, then construct a market-oriented Digital Media Park financed in the marketplace, and only then fill in as small a gap as possible with subsidized forms of gap-financing from civic and public sources, domestic and international. In every instance, our professional approach is to make the market work for us, and use only the absolutely bare minimum subsidy necessary to make the deal work for the young, entrepreneurial, emerging digital media firms.

➤ *Recommendations*

Additional sites should be identified for further digital animation space.

Step 1a Determine if there is additional space for further development at the Iride Business Park and assess the smaller studios interest and ability to pay for this type of 'market rate' space.

Step 1b Work with local USAID staff to identify other abandoned government properties or sites affiliated with universities that might be converted to a business park.

Step 2 Work with stakeholders to identify the financing and potential subsidies that can be dedicated to the projects in order to make rents affordable.

Step 3 At the earliest reasonable time additional financing of such opportunities should be explored within the marketplace.

Bulgaria

There is a strong demand for a Digital Media Park in Bulgaria. We did not find any business park development, similar to Iride, in Sofia. However, we did find four distinct and exciting opportunities:

2. DETAILED ANALYSIS AND RECOMMENDATIONS

1. The Boyana Film Studio

Boyana Films, the former state-owned studio, a large, full-service film studio on 1000 acres (<http://www.boyanafilm.bg/welcome.htm>), is currently being sold by the Bulgarian government. This process is well underway, but could be an opportunity to “carve” out a part of this very large site and have it dedicated to a digital park for smaller firms. The only potential downside of the site is that it is on the outskirts of the city rather than in the core.

➤ *Recommendation:*

Determine the status of this project. Identify the key negotiators and seek to determine if there is a real potential to obtain space here.

2. The Orpheus Video Studio

The Orpheus state-owned video studio provides an excellent opportunity for a smaller digital animation business park. There are three separate buildings, each of about 20,000 square feet, all surrounding a courtyard. While one of the buildings continues to be used for video purposes, the other buildings seem to be underutilized. There may be an opportunity for the government to donate the land or provide a very low-cost long-term lease. Should this occur, the project's retrofitting and building upgrades may be very attractive for a private-developer and private-equity investors. This project would also have a very beneficial revitalization impact on the surrounding community.

➤ *Recommendation:*

Determine true status of the Orpheus site: tenants, long/short-term leases, available space, willingness to consider improving or dedicating the site, etc. Work on the terms and requirements for getting a solid commitment. Determine level of financing needed to improve the site and determine if any financing gaps need additional subsidy.

3. University Affiliated Site

Universities and colleges have a mandate to educate people in this industry and might have appropriate space on or off campus.

➤ *Recommendation:*

Explore potential opportunities as one of the options.

4. InterSpace Media Art Centre – Assistance and Software Cluster

InterSpace (<http://www.i-space.org/>) management and staff played a critical role in our visit to Bulgaria. This not-for-profit is dedicated to expanding opportunities for art and digital media. They coordinated many of our meetings and provided essential background. They have also

2. DETAILED ANALYSIS AND RECOMMENDATIONS

been very involved in the development of a business park cluster for the software industry. Co-locating near this facility might provide some beneficial synergies for the tenants. It should be underscored that InterSpace was very interested in assisting with this feasibility as well as being our partners on exploring the Orpheus and other potential sites explained above.

➤ *Recommendation:*

Identify funding for InterSpace, perhaps in conjunction with MSI, the USAID funded competitiveness project that helped with our visit, to undertake steps related to #1 and #2 above. An on-the-ground, local team is critical to working through the various options and attendant bureaucratic hurdles.

The Development Team role is to guide InterSpace on each step, in terms of whom to speak with and the questions to ask. Our role would then be to synthesize the information on the three facility options to determine a path to pursue.

Macedonia

Macedonia has a Digital Media Park currently in the final construction phase. This project contrasts significantly with the Irde business park in Romania. Rather than being a market-rate business venture, it is heavily supported and funded by government. In addition, the lead tenant is a not-for-profit created to provide services to the local digital media industries. Digital Media, the tenant, is also the lead undertaking the 3D @ E-Schools project described under Education (see Section 2.4 below). 3D @ E-Schools will also be moving its intermediate training center into the building.

The building is a de-commissioned aircraft service hangar donated by the Ministry of Defense. It is well located near the center, on the way to the airport and is surrounded by green space. Getting the Army to donate it required some politics, mainly on the part of the local USAID mission there. USAID will hopefully be funding upgrades to the building, through a Global Development Alliance.

With those two elements, the project appears to be close to being sustainable. A local animation company, is committed to being an anchor tenant, and is close to a commitment to produce a daily television show there, which will generate immediate revenues. They will be paying market-rate rent, as will any other local studios looking to take advantage of the growing resource base there.

Serbia

The need for a Digital Media Park was equally great in Serbia. However, feedback from many of the interviewees indicated that making progress

2. DETAILED ANALYSIS AND RECOMMENDATIONS

in Serbia with this type of real estate project is likely to be much more challenging given government interference and other “challenges”.

The US Steel Economic Development Center representative indicated that the Serbian government is starting to realize that it must facilitate the development of business parks if it is to attract foreign investment. Companies confront such extensive challenges when trying to purchase and construct buildings for their operations that they are deciding to locate, instead, in other countries.

One opportunity we identified is the unused Avala Film Studio. While the federal government is privatizing this property, a visit to the site showed the facility to be quite dilapidated and fairly distant from the city center.

Perhaps the most promising opportunity is with the University of Arts in Belgrade (http://www.arts.bg.ac.yu/fdu/fdu_en.html). The Dramatic Arts program is located in New Belgrade, across the river from the center, with ample space and in need of attractions to draw activities there. This campus location is also near B92 (www.b92.net), a respected radio and television station that would be an excellent ally and resource.

➤ *Recommendation:*

Identify funding for Serbian Enterprise Development Project (SEDP), a USAID support program (and our guides during our visit) to research the opportunities better and get specific about one or more sites and the costs involved.

2.3 Financing: Digital Animation Project and Digital Media Park

More than 20 different private-equity funds and fund managers, and publicly-supported funding instruments were interviewed. We explored two major areas of financing with these diverse investors:

- 1) Financing a film or animation project, and,
- 2) Financing a Digital Media Park (DMP).

The responses were very consistent across funders and across countries. Almost all the private-equity investors indicated an interest in both the Digital Media Park and the film/animation financing opportunities. In general, these private equity funds are in their deals for 3-5 years and expect a gross 35% *annual* internal rate of return before any fees or carried interest. Some, such as the European Bank for Reconstruction and Development, have a slightly lower return threshold. Most provide both equity or mezzanine debt and are flexible in how deals can be structured. Discussed further below is a synopsis of the general approach and interest of the investors relative to both (1) financing digital animation film projects, or (2) Digital Media Parks.

2.3.1 Digital Animation Project Financing

2. DETAILED ANALYSIS AND RECOMMENDATIONS

In terms of film or animation financing, none of the investors were familiar with these types of investments. Only one had ever done anything similar, a candy DVD/commercial, and they do not yet know the returns. However, despite their lack of familiarity with the industry, virtually every private-equity firm indicated a willingness and interest in reviewing any such opportunity. They did not feel their lack of past track record in this industry precluded them from considering such an investment. The key consideration for most of them was the need for objective analysis on the financial return prospects of the film/animation product. They do not have the internal expertise with knowledge of this very specialized niche of film financing. Appendix D and E illustrate proformas on real film financing deals.

Most investors voiced very strong support for this type of investment if there were subordinated capital involved, where the subordinated investor would not have any of its capital returned until the private-equity investor received its capital and a set hurdle rate. In addition, the National Cultural and Cinematography Program in Romania has an annual budget available as grants for financing films. They would be interested in playing a subordinated financing role to attract production to Romania and the region. Similarly, the Bulgarian Ministry of Culture representative said that they are mandated by law to fund at least 100 minutes of animation per year. The Macedonian Ministry of Culture also has a yearly film fund available.

One important comment we heard several times is that this approach has the potential to succeed at a truly regional collaboration in ways not seen before. As mentioned above, this is because it follows existing collaborative models used by Hollywood, and the process, being entirely digital, is immune to physical and border limitations.

There seems to be other potential sources of subordinated funding which could be further explored. Funding entities focused on European Union accession and related issues have an interest in this. The Stability Pact, the European Agency for Reconstruction, and the Swedish and Canadian International Development Agencies were all recommended as possible sources.

➤ *Recommendations:*

1. Move forward with seeking to identify 2-3 projects that could be produced in the region.
2. Seek to determine which of those has a strong potential for "box office" success, through third party opinions, and would attract a reasonable amount of digital animation work to the region.
3. Focus on soliciting, from the investors and various donors that are interested, investment in the project.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

4. As noted above, we found real interest on the part of virtually all of the investors we met with to invest in media projects.
5. *In the immediate term*, their consistent concern for having a third party assist with the specific expertise to help with the due diligence process and the financial analysis of the specialized world of film investment could be attended to in the short run through a team of skilled professionals counseling the funds on digital animation deals.
6. *In the intermediate term*, a targeted fund could provide that highly skilled due diligence and serve as the lead investor for a pool of internationally respected private equity funds already resident and doing business in the region. Clearly, the high quality private equity funds both resident in the region and doing business in the region would respond favorably to a high quality firm that was specialized to evaluate these deals and could serve as lead investor.

2.3.2 Digital Media Park Financing

Most of the private-equity firms were very interested in financing one or more digital media parks. The challenge with the private-equity funds is that virtually all of these funds specialize in investing in *companies*. Real estate investing, and the inherent complexities involved, is not their core area of expertise. These funds tend to be generalist in nature. This is quite different from funds in the United States, where they are very specialized. Private-equity venture and growth funds only finance companies and as a result they develop tremendous expertise and capacity in this specialty area. Similarly, private-equity real estate funds in the United States only finance real estate deals, thus having a tremendous depth of knowledge in terms of developing realistic pro-formas, managing the deal, obtaining government approvals and providing capacity to the local developer. Given the secondary nature of the real estate investments of the Eastern European equity funds, they tend to be passive investors rather than active partners in assisting with structuring and managing deals.

In Eastern Europe, given the complexity of working with real estate and the government, the more passive role of the private-equity investors is problematic. Investing in companies does not require a significant level of government interaction or interference. Undertaking real estate development, given the need for permits, clearing land title, land assembly, entitlements, etc, fund managers must have a very strong understanding of the government process, and the local and regional real estate market if they are to effectively move projects forward. If they do not have these skills or this focus, they will find it extremely difficult to deploy real estate capital. They also will not be “value-added” partners to the developer (in assisting them with the project). As a result, these funds will need to require higher equity returns as the risk to them is higher given the lower level of expertise managing it. This is the current situation.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

The absence of a regional real estate focused private-equity fund will not preclude digital media parks from being financed, as the other stakeholders and the Development Team are doing much of the ground work to put a very solid and fundable project together. However, from a broader economic development perspective, the absence of a regional real estate equity fund will hinder real estate and economic development in the region, thus curtailing job growth.

➤ *Recommendations for Digital Media Park Financing:*

1. Approach Investors once Digital Park Projects progress.

Once progress is made on the Digital Park site development, approach the appropriate investors. It is recommended that EBRD be considered first given their slightly lower return threshold, and subsequent to this, approach other investors.

2. Attend the Real Estate Development in Eastern Europe Conference and provide best practice report.

On June 1st and June 2nd The Urban Land Institute (ULI) is holding a conference in Istanbul Turkey on Real Estate Development in Eastern Europe. ULI is one of the leading global real estate trade associations, with a distinctive mission of educating its members about the most current techniques and best practices for urban real estate development. Debbie La Franchi has been a speaker at a number of their conferences in the United States, relative to the double-bottom line funds she and Belden Daniels have created and she has been a member of ULI for many years. Development Team attendance at this conference would enable a better understanding of how developers and funders are attaining success in Eastern Europe, given all the challenges. Participating will help identify developers that have the interest and capacity with assisting with the Digital Media Parks (as they are core attendees of the conference) and new funding sources will also be identified. A report, synopsisizing the findings from the conference would benefit this digital media activity, and, USAID staff by better equipping them to facilitate economic development in the region.

3. *Intermediate Term:* Develop a regional real-estate fund to provide equity not only for digital media parks but economic development real-estate projects in general. The broader initiative will spread risk and concentrate the real estate investment talent to develop business parks of all types, including digital media parks. This would accelerate economic development within the region and finance future digital media park activities. This Initiative would mean importing the North American private equity real estate fund manager model to finance commercial and industrial real

2. DETAILED ANALYSIS AND RECOMMENDATIONS

estate in a region that has already adopted the North American (now global) model for venture capital to finance emerging business enterprise. A few highly regarded global private equity investors and fund managers have expressed interest in this idea. We also found many potential co-investors already in the region who would be interested in participating in this financing.

2.4 Education and Training

Workforce development is essential to success. For the digital animation industry in Eastern Europe to grow and be competitive with larger labor markets, it must have a trained talent pool. We encountered three broad categories of training:

1. Free introductory and intermediate training at high-schools
2. Advanced, professional-level training for a fee, and,
3. On-the-job training

The free introductory training is best for creating broad-based facility with basic tools and identifying potential talent. The approach is to leverage existing school-based computer labs, and install animation software that is free for educational use, providing tutorials in the native language and training teachers in basic use of the software. These activities provide a foundation of skills for a high school student that, with the right aptitude, would enable them to have a successful career in digital animation. Macedonia's 3D @ E-Schools is the premiere example, having taught over 1,000 students in these basics. About 5% of the graduates show potential and are continuing on to the intermediate training level. In Bulgaria, the government's ICT Agency is setting up comparable "school-based telecentres" in 3,200 schools, and could benefit from building on the experience in Macedonia.

The advanced, professional fee-based training is targeted at qualifying students for real jobs doing state-of-the-art work. The best example is Chiron in Belgrade. The founder is a Serbian who spent years in Canada and the United States doing world-class work at a leading software provider (Alias) and Industrial Light and Magic. Chiron has developed a very professional training program that serves as a model for future growth and replication.

On-the-job training is directly targeted to specific needs of a company, such as producing a feature film. WorldwideFX in Sofia has the largest staff and the most mature in-house training program. As mentioned above, they have trained a large proportion of the visual effects workforce in Sofia. Their curriculum could be replicated a means of benefiting the industry's growth.

2. DETAILED ANALYSIS AND RECOMMENDATIONS

Country Overviews

Romania

Bucharest has a few large studios with ambitious plans. Two of them provide job training to ensure they have the talent necessary. We did not encounter any other training programs.

Bulgaria

WorldwideFX's training program stood out as the only significant existing effort in Bulgaria. The Government ICT Agency is creating a program that will place a computer lab in every school, similar to the E-Schools program in Macedonia. It would benefit greatly from building on the 3D @ E-Schools concept of installing free training software in all those labs to give young students early access and a chance to see if they have aptitude.

Macedonia

The 3D @ E-Schools program referenced several times above has been a resounding success in Macedonia. This program has installed a lab with ten computers within every school in the country. The NGO Digital Media has been responsible for implementing this program. Digital Media was created by FX3X based on the industry's future need for talent. FX3X proposed to USAID that "Personal Learning Edition" of the popular *Alias* software (the industry standard for high-end 3D production) be procured and installed at each school. Tutorials are provided in Macedonian, as is training for at least one teacher per school. They established Digital Media, the recipient of the grant, to spearhead this activity. The first phase included 27 high schools in Skopje. The program has now been expanded to all of the high schools in the country. Over 1,000 introductory students have gone through the course and about 5% of those are now moving on to intermediate courses. This model should be replicated wherever possible, as the costs are minimal (assuming the existence of computer lab space).

Serbia

The Chiron school in Belgrade had the best professional training program we encountered. They teach state-of-the-art techniques, as well as less obvious but equally important skills such as teamwork, cooperation, critiquing, etc. They periodically bring over experts from Pixar, ILM and other high-end studios. The tuition for the four-month class is 1,650 Euros. (1,900 Euros for Level three because it requires more expensive software). They have no difficulty in filling the classes to capacity despite the relatively high cost. A recent graduate success story is of a student who recently got hired in the US earning \$75,000 per year.

Education Recommendations

1. Replicate the 3D @ E-Schools program wherever possible, starting with Bulgaria. Orlin Kousov, who runs the Bulgarian ICT Agency under the

2. DETAILED ANALYSIS AND RECOMMENDATIONS

Ministry of Transport and Communications, is wiring schools nationwide and has the resources and interest to work with the Macedonian project leaders to learn from them and integrate wherever possible.

2. Expand the Chiron program throughout the region, preferably by partnering with them so as not to reinvent the wheel.
3. Establish a scholarship program for female graduates of the 3D @ E-Schools program so that they can attend Chiron, as a way of addressing the serious shortage of women in the industry.

3. Appendices

Eastern Europe Digital Media Industry Report

- A.** Investor and Funder/Supporter List
- B.** Investor and Funder /Supporter Meetings List
- C.** Studio Visits/Interviews
- D.** Film Finance Models
- E.** Recoupment Schedule

Potential Investors and Funder/Supporters

Outlined below are the funds and financing sources identified in our preliminary research on the region.

Romania

- Advent International
- Baring Communications Equity Emerging Europe
- Danube Fund, LTD.
- ORESA Ventures
- Romanian Ministry of Culture
- Romanian Post-Privatization Fund
- Romanian-American Enterprise Fund
- SEAF Trans-Balkan Romania Fund LLC

Bulgaria

- Black Sea Fund & Euromerchant Balkan Fund
- Bulgarian American Credit Bank
- Bulgarian-American Enterprise Fund
- Euro-Bulgarian Cultural Center
- European Bank for Reconstruction and Development (EBRD)
- National Culture Fund
- Pro Helvetia: the Arts Council of Switzerland, Bulgaria Office
- SEAF Trans-Balkan Equity Fund LLC

Macedonia

- EBRD

- European Union Community Assistance for Reconstruction, Development and Stability in the Balkans Program
- Macedonian Ministry of Culture
- Soros Foundation
- World Bank

Serbia

- Copernicus Capital Partners
- Media Development Loan Fund (MDLF)
- Soros Foundation/ Open Society Institute
- The Serbia Investment and Export Promotion Agency (SIEPA)
- U.S. Steel Economic Development Center

Hungary

- Argus Capital Partners
- DBG Eastern Europe
- MAVA Capital

Poland

- AIG New Europe Fund
- Warsaw Financial Center

Austria

- European Investor Outreach Program (EIOP)

United States

- Community Habitat Finance
- International Finance Corporation
- Multilateral Investment Guarantee Agency (MIGA)
- Small Enterprise Assistance Fund (SEAF)

Banks Investing in the Region

- Bank Gesellschaft Berlin (*AIG New Europe*)
- Swiss Life Private Equity (*Baring*)
- ING Barings (*Baring*)
- Toronto Dominion (*Baring*)
- Nissho Iwai (IXC) (*Baring*)
- JP Morgan (Chase Manhattan Bank) (*Baring*)
- HarbourVest (*Baring*)
- BancBoston Capital (*Baring*)
- Commercial Capital (*Baring*)
- Zagrebacka banka (*Copernicus*)
- UniCredito Italiano (*Copernicus*)
- Lombard Odier Darier Hentsch (*Copernicus*)
- Erste Bank AG (*Copernicus*)
- Bank Rozwoju Exportu SA (*Copernicus*)
- Aurelia Finance (*Copernicus*)
- Alpha Credit Bank (*Danube*)
- Bank Austria Creditanstalt (*Romanian PPF*)
- Caja Madrid (*Romanian PPF*)

Investor and Funder/Supporter Meetings

Listed below are the funders and potential supporters with whom the Development Team met with and interviewed.

General Investors and Funder/Supporters

- Small Enterprise Assistance Fund (SEAF)
- International Finance Corporation (IFC)
- Multilateral Investment Guarantee Agency (MIGA)
- Hungarian Ministry of Culture

Romania

Investor

- Romanian-American Enterprise Fund
- Romanian Post-Privatization Fund
- SEAF Trans-Balkan Romania Fund LLC

Funder/Supporter

- Ministry of Culture
- National Center of Cinematography

Bulgaria

Investor

- Bulgarian-American Enterprise Fund (BAEF)
- European Bank for Reconstruction and Development (EBRD)
- Global Finance
- SEAF Trans-Balkan Equity Fund LLC

Funder/Supporter

- Inter Space
- Internet Society Bulgaria

- Ministry of Transport and Communications, ICT Development Agency
- National Culture Fund
- Pro Helvetia: the Arts Council of Switzerland

Macedonia

Investor

- World Bank
- EBRD

Funder/Supporter

- Soros Foundation
- Ministry of Culture

Serbia

Investor

- Media Development Loan Fund (MDLF)
- Copernicus Capital Partners

Funder/Supporter

- U.S. Steel Economic Development Center
- The Serbia Investment and Export Promotion Agency (SIEPA)
- Soros Foundation/Open Society Institute

Studio Visits/Interviews

Romania

- Bravo Studios
- Danimated/Imagina
- Dacodac
- Long Neck
- They Live

Bulgaria

- Interspace Media Art Center
- 5th Degree
- Studio Hill
- Bonart
- WorldwideFX
- Dynamate
- Zoographic
- Sokerov
- Dark Light

Macedonia

- FX3X
 - Videolab/Storyboard Studios
 - Dream Factory
 - Unet
 - Tomato Productions
 - Axis
 - Aquarius Design
 - Place Holder
-

Serbia

- Chiron
- Zepter Creative / Kaboom
- FX3X Belgrade
- Kompani
- Janus Interactive
- Teslab Interactive
- Helium
- B92

Hungary

- Saint Studios

Film Finance Model

JIMMY NEUTRON: BOY GENIUS

<i>(all #s from IMDB pro)</i>	US Model
Estimated Budget	\$24,000,000
Total US Box Office	\$81,000,000
UK/European Box Office	\$6,000,000
Total Box Office	\$87,000,000

Percent of Total

PRIVATE INVESTORS	Subordinate investor	\$4,800,000	20%
	Subordinate investor	\$4,800,000	20%
	Preferred Investor #1	\$4,800,000	20%
	Preferred Investor #2	\$4,800,000	20%
	Preferred Investor #3	\$2,400,000	10%
	Preferred Investor #4	\$2,400,000	10%
	Producer Deferments	\$0	
	Total Investment	\$24,000,000	

BOX OFFICE GROSS		\$87,000,000
(MK Model):		
Exhibitor Fee (50% of Gross)	50%	\$43,500,000
	NET BOX OFFICE	\$43,500,000
Distributor Fee (25% of Net)	25%	\$10,875,000
Distribution expenses (35% of Net)	35%	\$15,225,000
	NET TO PRODUCERS/INVESTORS	\$17,400,000
Private Investors Break Even	Preferred Investor #1	\$3,480,000
	Preferred Investor #2	\$3,480,000
	Preferred Investor #3	\$1,740,000
	Preferred Investor #4	\$1,740,000
	Subordinate investor	\$0
	Subordinate investor	\$0
	Deferments	\$0
	Producers	\$0

Jimmy Neutron: Boy Genius, continued

HOME VIDEO/DVD GROSS:		\$60,000,000
(Estimate)		
Retailer/Wholesaler (80% of Gross) (includes manufacturing costs)	80%	\$48,000,000
	NET HV/DVD RECEIPTS:	\$12,000,000
Distributor Fee (25% of Net)	25%	\$3,000,000
Distribution expenses (10% of Net)	10%	\$1,200,000
	NET TO PRODUCERS/PRIVATE INVESTORS:	\$7,800,000
Less remaining principal (donors recoup)		\$6,600,000

NET NET TO PRODUCERS/PRIVATE INVESTORS	\$1,200,000	
Private Investors (60%)	\$720,000	<i>ROI</i>
Private Investor #1 (20%)	\$144,000	3%
Private Investor #2 (20%)	\$144,000	3%
Private Investor #3 (10%)	\$72,000	3%
Private Investor #4 (10%)	\$72,000	3%
Subordinate investor	\$144,000	3%
Subordinate investor	\$144,000	3%
Producers (40%)	\$480,000	

Recoupment Schedule

26 X 30' TV SERIES

	TOTAL REVENUE	Merchandising & Licensing (Advance)	Canadian Cable TV Subsidy				SUPPLIER 3 (Production)	SUPPLIER 4 (Software)
			FUND1	FUND2	SUPPLIER 1 (Post)	SUPPLIER 2 (Production)		
TIER 1	\$2,850,250.00	\$2,400,250.00	\$250,000.00	\$200,000.00				
Less : Recoupment	\$0.00	\$0.00		\$0.00				
Balance to be recouped to Tier 1	\$2,850,250.00	\$2,400,250.00	\$250,000.00	\$200,000.00	\$0.00	\$0.00	\$0.00	\$0.00
Recoupment Percentage - Tier 1	100.00%	84.21%	8.77%	7.02%				
TIER 2	\$4,353,199.00				\$506,330.00	\$2,280,869.00	\$1,100,000.00	\$200,000.00
Less : Recoupment	\$0.00				\$0.00	\$0.00	\$0.00	
Balance to be recouped to Tier 2	\$4,353,199.00	\$0.00	\$0.00	\$0.00	\$506,330.00	\$2,280,869.00	\$1,100,000.00	\$200,000.00
Recoupment Percentage - Tier 2	100.00%				11.63%	52.40%	25.27%	4.59%
TOTAL TO BE RECOUPED (TIER 1 & 2)	\$7,203,449.00	\$2,400,250.00	\$250,000.00	\$200,000.00	\$506,330.00	\$2,280,869.00	\$1,100,000.00	\$200,000.00
Recoupment Percentage - Tier 1 & 2	100.00%	33.32%	3.47%	2.78%	7.03%	31.66%	15.27%	2.78%
NET PROFIT ALLOCATION- EQUITY INVESTMENT	\$4,803,199.00		\$250,000.00	\$200,000.00	\$506,330.00	\$2,280,869.00	\$1,100,000.00	\$200,000.00
Equity Percentage	52.00%		4.50%	4.00%	5.06%	22.79%	10.99%	2.00%
Producer's Equity	48%							