

Ambition: A Risky Adventure in Science Communication

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Keywords

Science fiction,
science communication

This article explores how the European Space Agency made a short science fiction film about the *Rosetta* mission to engage audiences in the core scientific and philosophical questions of the mission, and to manage expectations regarding the risky landing of *Philae* on the surface of Comet 67P/Churyumov–Gerasimenko.

Beginnings: From 7 Minutes of Terror to the Rosetta story

Early in the morning on 6 August 2012, I was at the European Space Agency's (ESA) European Space Operations Centre (ESOC) in Darmstadt, Germany, taking part in a media event covering the landing of NASA's *Curiosity* rover on Mars. As we watched the live feed from California, the tension was high. We all knew that the novel "skycrane" approach was risky and that the whole mission depended on it.

One of the reasons that everyone at ESOC, and around the world, was on the edge of their seats was because of a film made by NASA called *7 Minutes of Terror*, which illustrated *Curiosity's* journey down through the Martian atmosphere and onto the surface¹. The film showed mission engineers talking about each key step, interspersed with high-end computer graphics, sound and music, showing in dramatic fashion how the descent was supposed to unfold.

7 Minutes of Terror painted the mission as bold, risky, and perhaps even a little crazy, but it certainly grabbed people's attention. It encouraged viewers to watch the mission unfold and see if everything would work and made them feel involved in the adventure. The film was a huge success, as was the *Curiosity* landing.

We knew then that the ante had been upped, and that we would have to try and reach the same level of engagement with our communication work at ESA. The most immediate challenge was going to be *Rosetta*, which was due to arrive at Comet 67P/Churyumov–Gerasimenko (Comet 67P/C-G) exactly two years later, and then to attempt to put its lander, *Philae*, onto the surface of the comet only months after that.

Rosetta was going to be big. It was going to break new ground as the first-ever mission to rendezvous with, escort, and land on a comet, and this was going to be an adventure that people could follow in almost real-time. Scientifically, the mission promised new insights into the origin of the Solar System and perhaps even life on Earth. It had the potential to become a major highlight in space exploration.

Rosetta definitely deserved the *7 Minutes of Terror* treatment, but it wasn't that simple. The event most likely to engage the widest public was going to be the landing of *Philae*, but in contrast to *Curiosity's* high-speed clattering descent through the atmosphere towards Mars, *Philae* was going to take hours to descend sedately to the comet's surface and would do so in complete silence. We couldn't make a film called *7 Hours of Nervous Tension*.

However, we had also noted that NASA's film talked exclusively about the "what", namely the technical difficulties and checkpoints in getting *Curiosity* onto Mars. It didn't talk about the "why". Why was undertaking such a risky endeavour worthwhile? What was the scientific rationale behind such a mission? Beyond the complex technology and the risks associated with it, why should people care about the mission?

So, right from the outset, we knew that anything we did had to be different. As well as illustrating the mission, it had to talk about what we were hoping to achieve with *Rosetta*, what it would mean scientifically and perhaps even philosophically to people and what it could teach us about ourselves. We wanted people to care about *Rosetta* in a deeper way.

Fast forward to mid-2013, when the planning for *Rosetta's* big year began in earnest. We knew we had a series of milestones in 2014 that we could build the communication campaign around. The wake-up from hibernation on 20 January, rendezvous with 67P/C-G on 6 August, and then the landing of *Philae* in mid-November. There were many things that needed doing, as described elsewhere in this special edition of *CAPJournal*, but we had decided that a core part of the campaign was to be a film, a few minutes of top-drawer video that would capture attention across a wide audience, something we tentatively called *The Rosetta Story*.

We sold this idea internally and garnered the necessary funding to go ahead, but soon afterwards we began to wonder whether a straightforward film about the mission would be worthwhile. After all, we would also be making a series of classical technical animations to illustrate the mission, while others would be making documentaries much better than we could. What could this film bring on top of that?

Enter science fiction: The birth of Ambition

After a great deal of thought about the role this new film would play, the light went on. Rather than a literal telling of *Rosetta's* story, perhaps we could talk about the scientific, technical, and philosophical aspects of the mission within a fictional framework. By creating an interesting story, we might hope to draw in new audiences otherwise reluctant to engage with a real space mission. To do this justice, we knew we couldn't do it ourselves. We needed to work with talented people in the film industry who could develop a compelling short



Figure 1. A selection of scenes from the short science fiction film *Ambition*. Credit: Platige Image

narrative inspired by *Rosetta*, and then produce an outstanding audiovisual experience around it. They would also need to understand our wishes and constraints, both scientifically and in terms of communication by an international space agency.

We asked two companies for bids, and while both had excellent storytelling skills and technical credentials, ultimately we decided to go with Platige Image, based in Warsaw, Poland².

Platige make award-winning short films and commercials, including the stunning and later BAFTA-winning trailers for the BBC's coverage of the 2014 Winter Olympics in Sochi, Russia³. They also have scientists involved in the team both at the helm of the company and in Jan Pomierny, our main interface throughout. Jan is an astronomer and science communicator through the New Space Foundation, which he co-founded, who has also worked with the Universe Awareness project and as an

organiser of the International Astronomical Union CAP conference in Poland in 2013.

Jan's involvement as film and campaign producer, managing the overall Platige effort from within its creative department (PLTG R130, now called Fish Ladder), was critical to us. Beyond producing an amazing film, we needed to work with people who could grasp the science and technology, and who could see the bigger picture of what we were aiming to achieve. They also needed to be sensitive to the potential pitfalls surrounding a civilian space agency getting into the science fiction game. We were very lucky to be assigned Platige's star director Tomek Baginski, who was nominated for an Oscar in 2002 for his short film *The Cathedral*⁴. Tomek had also directed the BBC Sochi Olympics trailer and that dark, dramatic piece with its brilliant visuals, voiceover, and driving music seemed a perfect fit for us as a starting reference.

With the team on board we started to discuss possible storylines. One was a heist movie, in which someone broke into a giant museum and stole the centrepiece, a kilometre-wide comet, an icy treasure chest. We then focused on the idea of turning science fiction into science fact, to show how *Rosetta* was going to do something hitherto thought of as impossible, mad, crazy. Refining things, we came around to telling a story set in the deep future, looking back at *Rosetta* as a pivotal moment in space exploration and the understanding of our own origins.

Platige came up with the perfect name for the film: *Ambition*. This encapsulates the extraordinary goals of the entire *Rosetta* mission in a single positive word, but also implicitly refers to the risks associated with rendezvousing with a comet for the first time and then being so bold as to deploy a lander to its surface⁵.



Figure 2. Photographs taken during the filming of *Ambition* on location in Iceland. Credit: Mark McCaughrean

By this time, it had become clear to us that the film needed to communicate the mission in a variety of different ways. It needed to entertain and engage through superb visual storytelling, imagery, and music; it needed to explore the broad scientific and philosophical aims of the mission; and it also needed to help manage expectations.

It was clear that the widest moment of public engagement with the mission would be on the day when *Philae* was sent to the surface of Comet 67P/C-G. However, much like with NASA's *Curiosity* rover, everyone close to the mission knew that successfully landing *Philae* was going to be highly challenging, and it was important to communicate that risk in a positive way. It is for this reason that you don't see *Philae* landing in *Ambition* and the actors don't actually say whether or not the landing was successful. From their perspective in the far future the most important thing was to have tried, and even in the worst case, learning from failures has much to contribute to future success.

One important difference from *Curiosity* that needed to be communicated was that in order to deploy *Philae* in the first place, the wider *Rosetta* mission would already necessarily have to be a success, both operationally and scientifically. That is, the whole mission was not riding on *Philae*.

Another key element in our developing *Ambition* strategy was to do it undercover. Whereas a more conventional "*Rosetta*

story" film could perhaps be done out in the open, we realised that to maximise the impact of an out-of-the-box science fiction film, we needed to surprise an unsuspecting public.

To ensure external secrecy, we also needed to keep the number of people in the know inside ESA and Platige Image to a minimum. Inside ESA, even most of the communication team responsible for the rest of the great *Rosetta* campaign were only vaguely aware of the mysterious project until near the end. Similarly, at Platige, the work was done behind closed doors on a strictly need-to-know basis. A very small number of people at Platige and at ESA worked as one team to bring the whole concept together.

A byproduct of this secrecy was that it would perhaps help shield the essential vision of the film from being blunted by committee and management decisions inside ESA. While this was obviously a risky approach in the event that the film failed, we nevertheless felt that the chance of coming up with something amazing made it worth taking.

Making progress: Planning the strategy and casting the actors

A perfect opportunity to release the film from under this deep secrecy had presented itself in early 2014, just days before *Rosetta* woke up from hibernation. Rhidian

Davis at the British Film Institute (BFI) in London was organising a science fiction film festival called *Days of Fear and Wonder* for later in the year, and had been talking to various people about how to mix science fiction and real science. Via UK-based science communicators, Marek Kukula and Anita Heward, he had heard about *Rosetta* and asked if we could explore working together, perhaps by livestreaming the *Philae* landing from ESOC to the BFI.

When we requested that he instead help us to premiere a science fiction film during his festival, Rhidian quickly overcame his initial surprise and became an enthusiastic supporter of the concept. He arranged meetings with BFI senior management and by the summer, helped by the fact that *Rosetta* was already making big news, they had agreed to host the premiere at their prominent theatre in London.

Our aim was to hold the premiere a few weeks before the *Philae* landing, preceded a few weeks before that by the release of a brief teaser trailer online. The teaser trailer would not mention ESA or *Rosetta* at all, but by featuring a well-known actor, we could hope to bring attention to the pending premiere, allowing us to invite film and culture journalists without them knowing that the film had anything to do with us.

To achieve this though, we needed that actor. Early versions of the story involved just one, but we had iterated towards a master and apprentice scenario for obvious dramaturgical reasons, so in fact we needed two actors. The idea was to cast the master first with a well-known actor, and then look for an upcoming younger actor for the apprentice.

By this time producer Anna Różalska had brought her film-world experience in to co-produce the film with Jan⁶. Anna used her link to Gail Stevens Casting to make contact with a series of well-known actors with the lead role in mind. The list included both male and female actors, and we had decided that whoever we managed to land for the master, the apprentice should have the opposite gender.

Availability at very short notice and willingness to work on something quite out-of-the-ordinary were key, and we were hugely lucky to get Aidan Gillen on-board⁷. Aidan has a long career in film and TV, and has

also done a few things just for the sake of impressing his kids, including appearing in Christopher Nolan's 2012 Batman film *The Dark Knight Rises*. This is one of the reasons that he agreed to do *Ambition*, along with the promise of a flight on ESA's zero-g plane. Aidan is perhaps most well-known as Petyr "Littlefinger" Baelish in HBO's fantasy drama, *Game of Thrones*, which has had huge success in recent years. His fame in the role is such that when my then 14-year old daughter found out that he was going to star in *Ambition* her reaction was, "Him? I hate him!". She was referring to Littlefinger, not Aidan, of course, but I knew we were onto something good if we had an actor who could provoke such a reaction.

Almost immediately after casting Aidan we landed Aisling Franciosi in the other part⁸. At the time, she was an upcoming young actor known for her roles in *Quirke* and *The Fall*, as well as appearing on the red carpet at Cannes for her part in the Ken Loach film, *Jimmy's Hall*. She was perfect for the key role of the apprentice.

Filming: The move to Iceland

With the actors on-board, and after a lot of iteration between Platige and ESA on the script and storyboard, as well sorting out the contractual issues, the time came for the principal shoot. The story needed a barren, desolate location that could serve as an alien planet, whether real or virtual, on which the protagonists could practice their planet-making and to which they could bring life-giving water.

An excellent location had been found in the form of an open-cast mine in Poland: dark, dusty, and with a wide horizon suitable for subsequent visual effects work. However, less than two weeks before the shoot, Greenpeace heard that permission had been sought to film at this location and were concerned about the possibility of mine tailings being kicked up, endangering people nearby.

A new location needed to be found at very short notice and Iceland was picked. Although rather more remote and hard to get to from Warsaw, Iceland offers fantastic other-worldly volcanic landscapes and has a very active film industry. Indeed, the year before, key scenes for Christopher Nolan's film *Interstellar* had been shot there



Figure 3. Left hand side: *Ambition* director, Tomek Baginski, being interviewed at the film premiere in London. Top right: Panel discussion during the *Ambition* premiere with, from left to right: Aisling Franciosi, Rhidian Davis, Tomek Baginski, Mark McCaughrean, and Alastair Reynolds. Bottom right: Mark McCaughrean during his presentation at the premiere of the *Ambition* film. Credit: Andy Dohnoe

and, even though it had not been released as we were making *Ambition*, the need to compete with *Interstellar* was often joked about.

In mid-July 2014, we decamped to Reykjavik, Iceland. The live shoot took place at a location on the Reykjanes peninsula, roughly fifty kilometres southwest of Reykjavik, not too far from the famous Blue Lagoon geothermal spa⁹. It lasted just two days, but took full advantage of the very long daylight available in midsummer close to the Arctic Circle. The weather was rather typical of Iceland: mixed. It was fairly cold and rained for some of the second day. The rain is not visible in the final film, which is fortunate given that it is supposed to take place on a dry, barren planet with no water. Similarly, even though the landscape was predominantly volcanic, there were a few small patches of grasses and even some flowers, which had to be edited out during post-production.

There was a combined crew of roughly fifty people, including the team from Platige and local Icelanders, with the actors emerging briefly from huge padded overcoats for each take. The film had been fully storyboarded with animatics and the script rehearsed with the actors in advance in Reykjavik. Tweaks were made continuously

throughout the shoot with the help of writer Afolabi Kutu. Opportunities were also taken to film interviews with the actors as part of a foreseen promotional campaign called *My Ambition*. Finally, as well as conventional shots, a helicam was used for overhead scenes involving stand-ins, although ultimately, those were all dropped in favour of visual effects.

After the short, but very intense, shoot many of the crew stayed on for a few days holiday in Iceland, while knowing that a huge amount of work was still ahead for many.

Bringing it together: Visual effects, music and a trailer

The key visual effects work continued back in Warsaw throughout the shoot and after, right up to the very last minute. The film clearly had to look stunning, with visuals at the highest standard, to avoid criticism by audiences used to blockbuster Hollywood computer-generated imagery (CGI) and visual effects (VFX).

We wanted a core sequence in the middle of the film to capture the real *Rosetta*, *Philae*, and Comet 67P/C-G in a stunning way, without the actors, and without voice-



Figure 4. Visual effects were added to the location shots to produce the stunning final film. Credit: Platige Image

over. The aim was to have a short piece that could be used by broadcasters to capture the essence of *Rosetta* at the time of landing and after, and that meant it had to be accurate. This meant that Platige had to develop their own very detailed model and render of the two spacecraft, but also of Comet 67P/C-G which, until August 2014, had never been seen close up. As a result, a huge amount of expert modelling and rendering work needed to be done by Jakub Knapik, VFX supervisor at Platige, and his team in Warsaw based on a limited set of available comet images, in the same very short time window in which the whole film was being assembled and edited.

The level of work required and the timeframe in which it needed to be achieved led to some fairly fraught moments. At ESA, we were anxious to see at least a very brief excerpt of the final product, to convince ourselves that things were going in the right direction. We were not accustomed to the flow of this kind of film-making, where the superstructure of the film was being assembled in terms of the edited live shoot, with simple animatics inserted to show where VFX would later appear, and the final composition, grading, and sound only coming together at the very last minute. A significant number of iterations on the VFX were also needed to convince ourselves that core scientific elements would not be misrepresented.

Another critical element was the soundtrack. A whole range of ideas were battled between us, including using existing songs, but in the end the award-winning film composer Atanas Valkov was engaged to compose an original score for *Ambition*,

creating a superb combination of otherworldly mystery and drama¹⁰. Atanas later produced and released a full album of music based on the themes used in the film, along with other tracks inspired by space exploration.

At the same time as the final film was being worked on ahead of the premiere, now set for 24 October 2014 at the BFI, we needed the work on the teaser trailer¹¹. The aim was to reach our intended audience and suggest the prospect of a new science fiction film, but without giving away that it involved ESA and *Rosetta*. In a one-minute trailer, we couldn't use significant parts of the final film, partly because it wasn't finished, but mainly because it would potentially give too much away: the film itself is only just under seven minutes long, after all.

The decision was made to go with a series of stock clips representing the origins and evolution on Earth, starting from primitive life and ending with rockets and astronauts in space. A kind of extended version of the well-known opening credits to CBS's sitcom *The Big Bang Theory*, with dramatic music by Atanas, some overlaid text to set the scene, and a reveal showing Aidan surrounded by flying rocks asking the question, "What is the key to life on Earth?"

A couple of Easter eggs were included to see if anyone could make the connection to *Rosetta* and ESA: in the final frames at the end of Aidan's sequence, two rocks fly past each other and very briefly line up to make the shape of Comet 67P/C-G, and the astronaut shown waving from outside the International Space Station was Christer

Fuglesang, an ESA astronaut sporting a Swedish flag. Slightly disappointingly, no one figured it out.

Nevertheless, when the trailer was released on a dedicated website and YouTube channel run by Platige, it racked up over 400 000 views online and stirred considerable interest in the science fiction, film, and entertainment communities, as well as among Aidan's fans, as hoped. One positive review in Gizmodo said, "It's not *Interstellar*, but now I want to see it just the same".

Importantly, the positive reception made it possible to invite journalists spanning film, science fiction, gaming and technology, to the premiere of *Ambition*. There was still no connection to ESA, and Platige and the BFI worked with Aimée Anderson and her team at DDA PR in London to promote the event.

The existence of *Ambition* had, however, now been revealed to a rather surprised wider *Rosetta* communication team. Their involvement was now crucial, as the full weight of ESA's online and social media machinery would be needed to promote the film once it was released.

The premiere: Surprises and reactions

The *Rosetta* team came together with Platige and DDA in London on 24 October for the premiere at the BFI. Also present were the project scientist, Matt Taylor, science fiction author and former ESA astronomer, Alastair Reynolds, and actor, Aisling Franciosi. While the film, culture, and technology journalists were in the dark, a small number of science journalists had also been invited "in the know". The total audience was around a hundred.

The aim was to keep the whole involvement of *Rosetta* and ESA secret until the moment Aisling says in the film "Are you talking about the *Rosetta* mission?", a reveal that would end months of closely guarded undercover work.

In the event, things didn't quite work out that way. After the teaser trailer was shown, *Ambition* itself was introduced by the moderator, saying that it was "an innovative collaboration between ESA and Platige



Figure 5. Panels from the original storyboard for the Ambition film. Credit: Michał Murawski/Platige Image

Image, around the *Rosetta* mission”, and thus giving the game away a few minutes too early.

However, while those of us sitting in the front row of the theatre shook our heads in disbelief, the rest of the audience were still clearly surprised, and the big reveal in the outside world had not been spoiled.

After the film was shown, members of the ESA team removed jackets to reveal *Rosetta* polo shirts and logos, and a series of short presentations were given to describe the real *Rosetta* mission, its overall goals, its status, the link between science and science fiction, and where *Ambition* fitted in. We then had a panel session with Rhidian, Tomek, Aisling and Alastair, to talk about the film and to take questions from the audience. The interest was clear, and discussions continued well into the reception that followed.

Immediately after it was shown at the BFI, the film was released online via both the *Ambition* website and via various YouTube accounts, with promotion via *Rosetta* and ESA social media. The impact was immediate and the viewing numbers rose rapidly as people began talking about this completely unexpected representation of the mission and its goals, and of course, about *Rosetta* itself.

The reception was almost universally positive and a large number of online articles, blog posts, and reviews appeared in the days and weeks up to the *Philae* landing. Many praised the boldness we had shown

in taking a very unconventional approach to promoting *Rosetta*, but many also took the core themes of the film to embark on their own discussions of what it means to be ambitious and to take risks in pursuit of universal questions such as the origin of life.

It is important to note that a wider campaign had been developed around *Ambition* in order to help direct the film’s audience to *Rosetta*. This included a number of short films collectively titled *The Science of Ambition*, interspersing brief clips from *Ambition* with interviews from ESA staff involved in *Rosetta*, to give some additional scientific and engineering background to the key concepts introduced in the film. These were released online to further enhance the links between the science fiction and the real science.

A *Making of Ambition* film, several brief interview clips on a theme called *My Ambition*, posters by the acclaimed artist Grzegorz “Gabz” Domaradzki, and concept art were also released¹². Together, these added to the idea that *Ambition* was not just a seven-minute trailer to the *Philae* landing, but an integral part of the overall *Rosetta* communication campaign^{13 14 15 16}.

In the days that followed, we were relieved that the response from within ESA and the professional space community was also very positive. We had feared that our colleagues might think we were dumbing down a real scientific mission by associating it with science fiction. But, perhaps unsurprisingly, many people in the space

business are also fans of science fiction and like to dream about what might lie beyond the immediate projects they’re working on now. Many ESA employees made a point of saying how pleased they were we had taken a brave, creative, step in communication, and this was emphasised over the same weekend when *Ambition* took over the entire ESA entry webpage, with the normal website behind.

Recognition has also come from the film-making and communication communities. *Ambition* has been nominated for a number of awards by a number of organisations, including the prestigious Visual Effects Society, the Geekies, and the European Science TV & News Media Awards, and won the animago Best Visualisation award in 2015¹⁷.

Also, as hoped, the central sequence of the film showing the real *Rosetta* and *Philae* around Comet 67P/C-G was widely adopted as a definitive representation of the actual mission and extensively used in news and other media broadcasts.

Aftermath: The impact and legacy of *Ambition*

By the time of the *Philae* landing event three weeks later, *Ambition* had been watched more than a million times, and at the time of writing (February 2016), the total number of views over YouTube, ESA’s own website, and a number of large secondary outlets including Vimeo and Google+ exceeds 3.1 million. On the ESA YouTube channel, the film has had 1.3 million views alone, and the thumbs-up to thumbs-down balance is 99% positive.

Widening the analysis, it is worth making a brief comparison between *Ambition* and the series of anthropomorphic cartoons made about *Rosetta* and *Philae* described elsewhere in this issue (Mignone et al., 2016). The two are clearly complementary in terms of the way they deliver their messages to their rather different initial target audiences, with *Ambition* taking a relatively oblique, conceptual approach, and the cartoons being much more literal.

Ambition was always intended to be more of an “event film” linked to a specific time, to raise interest in the run-up to *Philae*’s

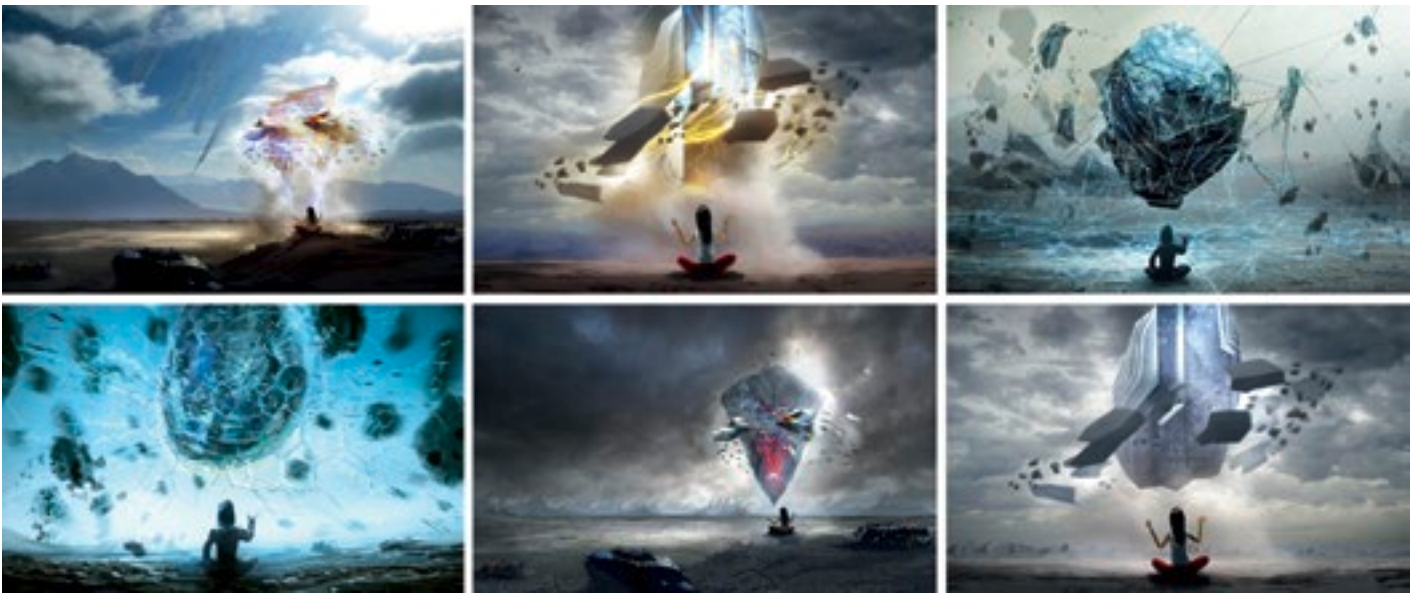


Figure 6. Concept drawings for the opening scene of *Ambition*. Credit: Platige Image

landing, as well as to help mitigate the risk associated with it. It was a film “for the moment”. By contrast, the cartoons have been developed and issued in a series over time to relate the unfolding story of the mission from before hibernation exit, through rendezvous, landing, and to the present.

Through the cuddly appearance of *Rosetta* and *Philae* and the link to their first-person Twitter accounts (Baldwin et al., 2016), the cartoons have developed a more affectionate following than the perhaps colder *Ambition*. On the other hand, the latter stimulates rather more reflective and philosophical thoughts than the cuteness effect triggered by the cartoons. Both, however, have been successful in reaching out to wide audiences well beyond the traditional space fanclub, as was the intention of the entire *Rosetta* campaign (Bauer et al., 2016).

Does *Ambition* herald a new approach to science communication for space missions and beyond? In the widest sense, yes. In much the same way as *Ambition* talks about the challenges, risks, and potential huge gains from thinking boldly and taking risks in space exploration, it also provides a meta-illustration of how innovative thinking in science communication can open doors to new, wider audiences.

More specifically, it is not obvious that *Ambition*'s central science fiction trope

would necessarily be adaptable to other projects. One crucial point about *Ambition* is that when it was released in October 2014, *Rosetta* had already achieved its main goal of rendezvousing with and flying around a comet. Thus any accusations that *Ambition* was indulging in pure fantasy could be immediately rebuffed by the fact that we were really doing this. Using science fiction to sell a project that still lies in the future could be much riskier in that regard, as the project itself could become tarred with the sometimes pejorative meaning of “oh, it's all just science fiction”.

A major lesson learnt from *Ambition* was the importance of identifying and working with people who felt passionate about the project, and who were able to bring world-class storytelling and technical skills and experience to it. This was obviously centred on the highly dedicated team at Platige Image, but involved people from many other areas who also bought fully into the idea, everyone thrilled to be working on something linked to a real space adventure.

Equally, a tight, constant interaction between the creative side and the scientific and technical aspects was essential. This ensured that the film was not only exciting and engaging, but that it conveyed accurate, meaningful messages about *Rosetta*, which is, after all, a real mission doing real science. The interaction was very intense, involving many emails, discussions, and face-to-face meetings, and there were cer-

tainly moments of creative tension, but the final product is surely better as a result of this very close collaboration between science and art.

Ultimately, it is perhaps impossible to disentangle the importance of the various aspects of the *Rosetta* communication campaign. Indeed, it is very likely that it was the combination and interplay between all parts of the campaign with the amazing and thrilling mission itself that helped bring worldwide attention to it. But *Ambition* was probably the single most original part of the campaign and at least in retrospect, a risk very definitely worth taking.

Acknowledgements

Making *Ambition* was a remarkable endeavour, bringing together many creative, passionate, and dedicated people, some mentioned in this article and all listed in the credits to the film. Special thanks though go to Markus Bauer, my co-conspirator at ESA, who helped dream up the project and ensured that we got it done, and Jan Pomierny at Fish Ladder/Platige Image, without whom it simply never would have happened.

Notes

¹ NASA's *Mars Curiosity* film *7 Minutes of Terror*: https://www.youtube.com/watch?v=Ki_Af_o9Q9s

- ² Platige Image webpage: <http://www.platige.com>
- ³ Platige Image Winter Olympics 2014 trailer for the BBC: <https://www.youtube.com/watch?v=4b9Ji7DvsjU>
- ⁴ IMDB page for Tomek Bagiński: <http://www.imdb.com/name/nm1313617/>
- ⁵ Platige Image Behance gallery for *Ambition*: <https://www.behance.net/gallery/21398975/AMBITION>
- ⁶ IMDB page for Anna Różalska: <http://www.imdb.com/name/nm3837777/>
- ⁷ IMDB page for Aidan Gillen: <http://www.imdb.com/name/nm0318821/>
- ⁸ IMDB page for Aisling Franciosi: <http://www.imdb.com/name/nm4957233/>
- ⁹ Flickr page with *Ambition* Iceland location shoot photos: <https://www.flickr.com/photos/markmccaughrean/sets/72157647105202934>
- ¹⁰ Atanas Valkov's *Ambition* soundtrack: <http://www.atanasvalkov.com/2014/12/ambition-soundtrack-premiere-15-01-2015/>
- ¹¹ *Ambition* The Film YouTube page for *Ambition* teaser trailer: https://www.youtube.com/watch?v=R4XK_NAToRI
- ¹² Grzegorz "Gabz" Domaradzki page for *Ambition* poster: <http://www.iamgabz.com/Ambition>
- ¹³ *Ambition* website: <http://ambitionfilm.com>
- ¹⁴ ESA Space in Videos page for *Ambition*: http://www.esa.int/spaceinvideos/Videos/2014/10/Ambition_the_film
- ¹⁵ ESA YouTube page for *Ambition*: <https://www.youtube.com/watch?v=H08tGjXNH04>
- ¹⁶ Vimeo page for *Ambition*: <https://vimeo.com/109903713>
- ¹⁷ Links to various nominations and awards for *Ambition*:
<https://www.visualeffectssociety.com/post/ves-awards-nominations-announced>
<http://www.thegeekieawards.com/ambition/>
<http://europaws.org/festival/running-order/>
<http://www.animago.com/en/news/archiv/congratulations-here-are-the-2015-animago-award-winners/>

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Biography

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