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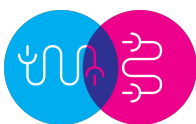
D6.2 Industry Testbed case studies and data

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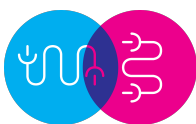
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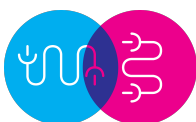
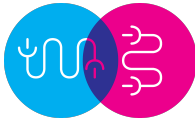


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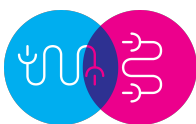
Executive summary

Deliverable 6.2 reports case studies, data and methodologies relevant for research, marketing and policies. Key to these is to redefine what the Music Industry is in the context of the Digital Agenda for Europe.

The information presented was collected and observed during WP6 Industry Testbed activities. In the framework of WP6 11 seed ideas developed during WP5 Creative Testbed events were incubated, with the aim of delivering prototypes suitable to be presented to industry players. In the process, partners mentored 11 teams on both technical and strategic aspects, supporting their work with contacts in the industry.

The document presents a set of case studies exemplifying positive outcomes and dynamics established; it then outlines impact data concerning market and statistics about the incubation process, formalises methodologies and best practices, and finally delivers policy recommendation. The deliverable does not present qualitative feedback and data concerning the tools, as this information is available in WP3 and WP4 deliverables, as well as in D6.1 and D6.3.

The present document is a deliverable of the MusicBricks project, funded by the European Commission's Directorate-General for Communications Networks, Content & Technology (DG CONNECT), under its Horizon 2020 research and innovation programme.



Introduction: Redefining the Music Industry

The 'traditional' music industry model for aspiring artists/performers starts with writing or choosing songs, playing live to build a following, seeking publishing and recording deals, and then recording in a professional studio with the resulting record manufactured and promoted through magazines, radio and television to drive retail sales. Every aspect of this flow model has been disrupted by the digitalization of the music industries since the 1980s. Digital recording, distribution, marketing and sales have become commonplace as have financially affordable tools for achieving a professional product.

For this reason, many digital music services and products that have been developed in the last two decades, such as download music and streaming services are simply extensions of the traditional music industry, rather than disruptive changes to them. Professional recording artists still make idealised versions of repertoire that are distributed to consumers who listen to them - and around this, markets and cultures of production, distribution, promotion and consumption are forged.

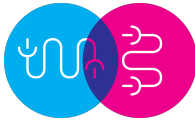
The hackathon and the hacker methodology have become central to a global creative community of artists and technologists whose skills and ideas combine to create new, surprising and inventive musical instruments, applications and concepts that not only contribute new ideas to the evolving (albeit still traditional) music industry, but also offer new kinds of music business that do not rely on traditional models of recording and broadcasting predicated on the notion of an active producer and passive consumer. In fact, central to many hacks, innovations and developments - and particularly those that make use of the #MusicBricks toolkit - are concepts of music participation and productisation of music creation. The new disruptive music industry proposed by the makers and creative developers of this project is one in which barriers to participation in music are challenged or even removed entirely.

In other words, the sale of recordings, like the sale of sheet music before them, may well become a proportionately minor aspect of popular music consumption, and industries that fail to adapt run the risk of becoming an increasingly niche proposition. Just as the recording businesses took over from the sheet music publishing organisations as "the music industry", nascent businesses creating participatory technologies that bridge the digital and physical world and allow for widespread participation in music cultural creation will conceivably supplant the recording businesses as "the music industry" in the years to come.

And just as the recorded music industry was, at its height, many times larger and more prosperous than the printed music industry before it, the participatory music industry will likely dwarf the market size of its predecessor, in large part because of its reach beyond the world of passive entertainment. In the new model advanced by the #MusicBricks project, music industry segments overlap with gaming, education, community participation, health and rehabilitation, IoT music product manufacture and transversal applications across a wide array of industry verticals.

WP6 Industry Testbed had the ambitious aim of incubating in a few months product ideas spurred from 24-hours hackathons and bringing them to a level where they can be considered appealing prototypes by industry, investors and potential users. The ideas (and international teams, ranging from 1 to 6 members) incubated were 11, in the 9 months period June 2015 – February 2016 (WP6 duration being M6-M15).

WP6 consisted in an open innovation process, where individual/non-institutional creators were given access to cutting-edge technologies and tutorship by major European research centres, as well as micro funding and strategic advice from consortium partners and external industry stakeholders. In turn, these early adopters provided an extremely valuable feedback to technology providers, and developed prototypes that already met the interest of the industry. Objective factors like time and resources management, as well as



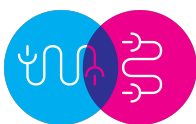
qualitative ones like engaging different personalities and cultures in teamwork, challenged participants and mentors all along the process.

The present document outlines the elements that made WP6 succeed as data, case studies, and recommendations. The report takes also into account barriers and difficulties, in order to deliver a realistic picture of the potential of the methodologies employed.

Despite the high number of variables, WP6 Testbed managed to produce not only concrete results and impact on economy (11 convincing prototypes, 2 new SMEs launched, 3 existing ones strengthened, 1 patent filed), but it also allowed to feed back into research, run in methodologies and mobilise a large network of industry players.

The whole process showed that a two-way collaboration among unconventional (difficult to be ascribed to a single field/profession) actors and well-established institutions and industries - when canalised with an adaptive approach - can lead to innovative results in a limited time frame leaning on few resources.

The knowledge distilled in this report is suitable to be adopted in further industry fields, as well as in the Horizon 2020 framework. As research impact, citizens' engagement and SMEs strengthening become more and more priorities for Europe, partners believe that the work performed in WP6 (and in #MusicBricks) can be a step forwards towards a more inclusive and competitive Europe.



1. Case studies

1.1 Creation of new SMEs and strengthening of existing ones

The creation of new SMEs has been conceived as one of the long-term impacts of the #MusicBricks project, to be triggered in the very last phase of the project through the WP7 Market Testbed. However, in only 9 months (from #MTFScandi to the delivery of this document) this aspect became an extremely concrete output. #MusicBricks gave origin to 2 new SMEs (within Y1) and made 3 existing ones more competitive.

1.1.1 Creation of new SMEs

1.1.1.1 Case study #1: Developing and prototyping a patent

The first start-up (Sojaner) born from #MusicBricks was launched in December 2015 in Sweden, 6 months after its CEO (Sohrap Gharibpour) took part in the #MTFScandi event and got enrolled in the #MusicBricks incubation programme. In such a short time-frame not only he managed to conclude successfully the incubation, delivering a sound prototype, but he has also found himself in the position of filing a patent for it: in order to better manage the patent and further develop the prototype, he decided to launch his own company. Such a success was made possible by a combination of factors:

1. The rapid knowledge transfer loop he benefitted from with #MusicBricks (amplified by his self-trained approach and skills)
2. The identification of a precise (and so far not properly addressed and satisfied) industry need
3. Pairing #MusicBricks mentorship with a university incubator advice.

Finally, it is important to underline that the targeted industry (forestry and agriculture) is not related at all with music or with any close field such as gaming or the entertainment industry in general.

1.1.1.2 Case study #2: Making an EC funded project sustainable

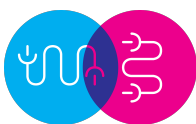
The #MusicBricks LTD company has been launched in January 2016 as a subsidiary of Stromatolite, upon demand from interested industry partners. Its foundation has many meanings for the EC-funded project:

1. It ensures its sustainability after the end of the European Commission grant
2. It testifies the real-world impact of the project, as its foundation is backed by a large user base, a promising market and a high interest from the industry
3. It proves the soundness and effectiveness of the overall #Musicbricks concept

This is not the first spin-off from a EU project created by partner Stromatolite: the Music Tech Fest was conceived in the framework of the MiReS FP7 project and its success (in terms of audience, relevance in the music tech field and number of industry partners) is surely a solid base for #MusicBricks LTD to take off from.

1.1.2 Strengthening of existing SMEs

In three cases, the participation of startups in the #MusicBricks incubation programme resulted in important growth for the companies, mainly in terms of know-how, strategy and network. In the case of MuArts, the existing startup company grew in recognition thanks to a project developed through #MusicBricks. In the case of LightBeat, the prototype developed within #MusicBricks enriched consistently the know-how and the proposition of the existing company Phono Music, funded as a result of a high-school final project. Human Instruments, a startup funded in 2013 working in the areas of music accessibility for severely physically impaired artists, achieved greater recognition, resulting in a Jury Nomination for the prestigious 2016 Ars



Electronica STARTS (Science Technology and the Arts) Prize. Finally, members of the FindingSomething_BondingSounding project gave life to the #WhiteMatter artistic collective.

1.2 Feedback into research

Despite being an Innovation Action, #MusicBricks contributed heavily to research. Consortium and incubated team members have issued 5 research papers and a book chapter so far, and more are planned.

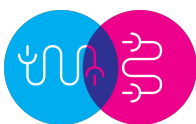
Besides publishing, the hands-on work on building the prototypes led to valuable feedback for research. This is well exemplified by one of the teams, The Snitch, entirely composed by researchers (PhD students and research assistants), which managed to deliver a market-ready prototype, and thus work towards a non-research oriented outcome. The team is also employed in another EC funded Research and Innovation Action (Giant Steps), and managed to leverage the concrete work done on the prototype to bring new knowledge and generate research results in the RIA. Their research focuses on investigating new methods for rhythmic pattern recognition and generation using genetic algorithms, targeting electronic musicians in live performances. Moreover, beyond enriching another project research, they are making the knowledge developed within the incubation process available to another incubated team.

1.3 Early feedback and expressions of interest from industry

Thanks to consortium members' contacts, incubatees were put in contact with industry stakeholders, where appropriate. Their point of view was extremely precious for incubatees in order to think about the best application and presentation of their work. Partners enabled Interactive Cube meetings with both a record label (Warner Music) and a recording studio (Abbey Road Studios) that runs also a music tech accelerator. The interest of meeting the record label resided mainly in exploring possibilities to showcase the prototype through famous artists performances. The feedback was thus mainly focused on the artistic use of the prototype in a very specific context, live performance, providing a use case scenario for the prototype. The studio was instead keen to produce the device as a product, and interested in the object itself more than in its application. This approach provided the team with ideas about the commercialisation, the formats in which the future product could be delivered and presented, leading to a better definition of it.

In the case of the Sound in Translation team, early contacts were established with Abbey Road Red incubator and it was agreed to meet at the project final event, #MTFBerlin.

Besides individual teams experiences, as mentioned in paragraph 1.1.1.2 the #MusicBricks project generated a spin-off, which is for the industry the best guarantee to get involved. In fact, one of the biggest challenges European Commission funded projects face is getting the interest of the industry: projects have a precise timeframe, and the absence of measures guaranteeing the continuity of work after the end of the grant is a concrete barrier against adoption and long-term collaborations. The grant period in the case of #MusicBricks provided a time span to build the tools ecosystem, and test the interest of external stakeholders. Knowing that the #MusicBricks framework will continue allows companies to plan their participation and include it in their strategy. #MusicBricks has therefore been established as a network and a framework.



2. IMPACT DATA

2.1 WP6 statistics in a nutshell

Incubatees-related statistics:

- **Gender balance:** 17% of the teams are composed of women
- **Age:** the average age is 27. The age range is between 18 and 56, with most incubatees aged 30-36 years
- **Countries:** incubatees reside in 11 different countries¹. The most represented one is Spain, followed by Austria and Israel. These statistics are related to the country of residence, but counting incubatees origin, the list should be expanded to include also Australia, Italy and Iran.
- **Occupation:** Incubatees can be categorised into 5 major fields (students, academic research, technology R&D, developers, creative)

Incubated projects statistics:

- **Completed prototypes:** 11 over 11
- **N° of patents registered and sector:** 1 patent, forestry and timber industry
- **SMEs:** 2 new ones, 3 existing ones strengthened by participating in the project

2.2 Target markets

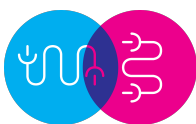
Please see the introduction of this document for the explanation of the changes to the Music Industry that have come about in response to shifts in the technological affordances embodied in tools such as those exemplified in the #MusicBricks toolkit and the rapid innovation methodology they enable.

WP6 is designed to measure the range of target markets identified for a market prototype (number of different market types the tools are applied to) according to demographics and psychographics (e.g. Music Enthusiast, Tech Savvy, Casual Listener, Conservative, see [Lynch2009]) and segments of the industry addressed. As demonstrated above, that conception of a target market is predicated on a traditional music industry model of professional music makers and passive consumers.

Instead, through the life of the project, emergent methodologies and new kinds of commercialisation opportunities have become a recurring theme because of the disruptive rather than incremental innovation that the #MusicBricks methodology engenders. As a result, target markets for the incubated projects developed using the creative #MusicBricks tools are based on the model of active and participatory consumers at the centre of a new music industry configuration. This is not to say that the #MusicBricks products are simply new types of musical instruments and that the target market is 'musicians', although that is also the case. More accurately, the target markets are different sections of music consumers whose consumption of music is active and participatory and not passive.

Through this model, new types of music businesses can form, both to exploit and disseminate the products created by the incubated teams, but also to build an entire ecosystem of products and services that relate to and support those #MusicBricks projects. While the markets listed are distinct and significant markets in themselves, several of the projects overlap between these markets. This is due to the emergent nature of these segments and the experimental methodologies of the project origination.

¹ Israel, UK, Spain, Austria, Sweden, Portugal, Hungary, Slovenia, Germany, Bulgaria, Colombia



Market	Number of projects concerned
Instrument	4
Performance and Gesture	7
Music as a Service	3
Environmental interaction (sound and light)	3
Mobile app (participation as consumption)	3

2.3 New markets identified following disruptive and cross-disciplinary methods

Although music represented the starting field for all the incubated projects, most of the prototypes produced are intended or can be appealing for further markets. This differentiation was mainly made possible by:

- The interdisciplinary nature of the #MusicBricks collaborations
- Incubatees' previous/parallel experiences feeding into the process
- Early contacts with industry

In #MusicBricks music technology affirmed itself as a neutral ground from where innovation can easily spur and impact other fields.

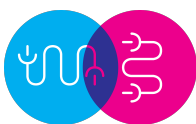
The new markets identified are:

Market	Segment	N° of projects concerned
Entertainment	Gaming	5
	Hospitality, bars and clubs	2
Health	Accessibility and disability	1
	Neuroscience and psychology	1
	Therapy	2
Sport	Extreme sports	1
Agriculture	Forestry, heavy machinery	1

3. Methodologies

3.1 The incubation methodology: origins and key elements

The incubation methodology employed in #MusicBricks is the evolution of the one experimented for the first time in residencies organised under the FP7 CSA FET-ART (2013-2014, better known as ICT & Art Connect, precursor to the prestigious 2016 Ars Electronica STARTS Prize. Coordinator: Sigma Orionis; key partner: Stromatolite). The concept of interdisciplinary residencies has been extremely positively valued by the



European Commission and included in compulsory activities for CSA proposals addressing the STARTS call (H2020 Work Programme 2016-2017).

The overall methodology consists in enrolling multidisciplinary teams that came together during creative events (such as hackathons or networking events) in a residency or incubation programme. The programme is condensed in a very short time frame (from 3 to 7 months) and supported with microfunding (from 1000 to 3000 €) and mentoring from professionals. The purpose of the programme is to further develop an idea developed during the event through collaborative work. The positive evaluation of a jury of experts grants access to the programme.

The main value of the methodology lies in the capacity of generating innovative prototypes and projects in a short time frame, by bringing together individuals with extremely different profiles and providing them strategic and technical advice otherwise difficult to obtain. If the idea of multidisciplinary as engine for innovation is not new - artist in residencies in places like IBM ([William Latham](#)) and Sony Computer Science Laboratory ([Atau Tanaka](#)), events like Rhizome's [Seven on Seven](#), [ACM SIGGRAPH](#), [Ars Electronica](#) (and the related [Futurelab](#)) - are permeating society and industry practices. ICT & Art Connect was the first attempt to bring such an approach, especially when it comes down to collaborations between scientists and artists/creative professionals in R&D programmes funded by the European Commission.

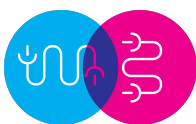
In the case of #MusicBricks, the methodology was further evolved. The table below resumes the main differences between the two project approaches:

Aspect	ICT & Art Connect	#MusicBricks
Scope	Research or artistic project	Production of a viable prototype (Market oriented)
Start-off areas	Art, Technology, Science	Music technology
Monitoring tools	OffBott, Skype, Google Drive	Slack, Skype, Google Drive, live workshop sessions
Mentoring	Consortium members (externals only on 1 project)	Consortium + industry players + incubators related to research centres
Showcase	Project final event	Project final event for all teams + MTF Central and ICT2015 for ideas selected early in the project
Technology provided	The only occasion in which R&D tech players made available their technologies was during the ART + TECH hackathon (Nantes, October 2013)	8 tools provided at each event by the 4 technology partners in the consortium + 3 from industry players who joined the tools ecosystem along the project

These elements of difference are further expanded below:

1. SCOPE

ICT & Art Connect (a Future and Emerging Technologies FP7 CSA) focused on new approaches to R&D. Its ambition was to demonstrate the relevance of including artists in technological and scientific research and development. The main claim was that artists could bring new perspectives and inputs, opening novel fields and research avenues. Collaborating with researchers would on the other side provide their artistic production with new topics and elements of reflection. FET-ART opposed the widespread idea that art is a mean to embellish the research final product. The outcome was an art piece which illuminated areas of science to an increased understanding.



#MusicBricks (a Horizon 2020 ICT Innovation Action) focuses on new approaches to prototyping and market access. Its ambition is to demonstrate the relevance of quick and effective tracks to bring ideas developed in 24 hours hackathons to the market. These ideas are based on technologies provided mainly by research centers, which (i) amplifies the impact of European research by a direct contact with early adopters and (ii) improves its quality through their feedback, two key concrete outcomes of the project.

2. AREA

ICT & Art Connect joined two broad areas, technology/science and creativity/art.

#MusicBricks puts the field of music technology at the core of creative innovation, and uses 'music as a social glue' to bring together researchers and developers from different fields (e.g. neuroscientists and videomakers) to build prototypes which can then be ported horizontally to different industry verticals (agriculture, healthcare).

3. MONITORING

ICT & Art Connect residents were monitored mainly through Skype calls (and where possible face-to-face meetings). Mentors tried to track their progresses on OffBott, an online journal for collaborative projects: this method worked only for some of the residencies. Teams shared evidence and steps of their progress on collaborative file sharing platforms such as Google Drive.

#MusicBricks residents were successfully invited to communicate with mentors on the Slack platform. This medium provided an agile environment for casual consultations, both private and across teams, rapid knowledge exchange, file sharing, with the advantage of keeping all mentors aware of the teams' progresses at all times. Regular Skype calls have also been held and fully documented. The consortium Google Drive contains calls minutes, updates on the status of each project and related documentation.

4. MENTORING

Consortium members mentored ICT & Art Connect residencies. Only one group benefitted of the support of external institutions, because these institutions made their technology available during the ART + TECH hackathon.

#MusicBricks incubatees were mentored by expert engineers, design, marketing and business advisors from the consortium, as well as by major industry partners (industry accelerators, tool providers and companies interested in developing the prototype).

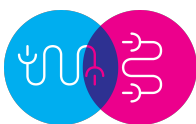
5. SHOWCASE

ICT & Art Connect projects have been showcased only during the final project event.

#MusicBricks projects selected during the two first WP5 events (MTF Scandi, May 2015 & Music Hack Day Barcelona), were also showcased at MTF Central (September 2015). 2 projects were further showcased at ICT2015 (Lisbon, October 2015) and at numerous other events and conferences:

- Munich Maker Faire
- Barcelona Loves Entrepreneurs
- International Society of Music Information Retrieval Conference
- Music Interaction Design (MiXD) Symposium at Birmingham Conservatoire

These occasions were crucial checkpoints for incubatees to understand how to better present the prototype and for mentors to track the teams' progress. Moreover two projects have been nominated for the Prix Ars Electronica 2016.



6. TECH PROVIDED

In ICT & Art Connect only the ART + TECH Hackathon provided participants with a range of technologies. In all the other cases the collaboration was limited to shared interests and matching of individual competencies, the latter influencing the technologies being used.

#MusicBricks partners provided hackathons participants with an initial ecosystem of 8 APIs, GUIs and TUIs, further expanded to 12 thanks to the interest of external industry players. Partners' expert engineers were engaged throughout the knowledge transfer and mentoring process, contributing heavily to the successful deployment of the tools.

3.2 The incubation methodology: good practices

3.2.1 Two-way exchange: rapid knowledge transfer and seamless feedback from early adopters

The fast knowledge transfer observed during the WP5 events proved essential also during WP6 incubation. Incubatees and tool developers were constantly in contact, and as the work on the prototypes advanced the features of the tools were challenged and pushed beyond their boundaries. For example, tools that originally were developed for an offline analysis process were demanded by the incubatees to also work in real-time, e.g. in a live performance setting. In some cases, the tool providers could respond to those requests - even within the short incubation timeframe - which not only made the desired functionality available to the incubated team but widened the audience for that particular tool in general to a much larger potential user base. On the other hand, it was a particularly rewarding experience for the incubatees to be in direct contact with the tool creators, and that they would not only interchange ideas on improvement but actually react to the requests to open or integrate features that were not seen as core feature before. This two-way exchange of ideas and knowledge therefore led to a win on both sides: rapid progress in terms of the incubatees ideas and rapid maturing of the toolkit itself.

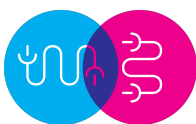
3.2.2 Open dialogue with the industry

During the incubation process some teams had the chance to be advised and followed also by industry players. Concrete examples of how this connection took place are already presented in the case studies section. What is relevant to underline here is that this was a key asset and contributed to accelerate the team progress: instead of waiting to have the prototypes ready, at the risk of missing important feedback and arriving too late on the market, the #MusicBricks approach allowed the involvement of potential investors and amplifiers of the prototypes in the development phase. This practice anticipated and prepared the ground for WP7 Market Testbed activities, in order to allow for a seamless connection between the #MusicBricks project partners and work packages.

3.2.3 Flexible and personalised work structure

Within each team the collaboration followed different patterns, primarily because of the members' geographic location. For teams based in the same area exchanges mainly happened face-to-face, a factor that can facilitate communication and avoid (or reduce) misunderstandings. Nonetheless, communicating online did not create problems for most teams working remotely: a clear division of tasks and a regular communication led to excellent progress. In some cases incubatees used the incubation grant to fund members' travel and meet face-to-face.

Teams recruited early in the project had the chance to meet and work at MTF Central: this second 24 hours development marathon proved extremely beneficial for teams working remotely. What helped was meeting in



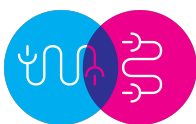
person, but also interacting with other incubatees and hackathon participants as well as being able to question the tools providers.

In one case a university accelerator supported the incubatee (Umenova eXpression in the city of Umeå in Sweden), by providing a base, funding, patenting and business advice.

Overall, remote work itself can't be considered as a barrier, as it both facilitated and complicated collaborations. When supported in person by mentors or hosted by facilities, incubatees managed to make good progress very quickly: if this seems to support the classic idea of residency (localized, hosted by an infrastructure providing equipment and mentorship, full-time), one can't forget that most of the teams were composed by individuals already committed to a binding profession or to their studies. The agile residency methodology allowed teams to match their work within #MusicBricks to other commitments, and the amount received allowed them to cover equipment and travel expenses. The methodology reflects contemporary work tendencies: remote, goals oriented, within flexible structures and personalized time management.

3.2.4 Valuing group alchemy

Human groups - when confronted to deliver a result - tend to have a leader, somebody who sets the route and communicates with the exterior, as well as somebody who is getting the hands dirty and focusing on development progress. Enthusiasm and reciprocal galvanisation can play a key role, especially in front of difficulties, and getting on well with teammates can completely change the perception of the work done and of future steps. Humans are not machines: these are just a few qualitative elements that can't be really controlled or foreseen when validating the participation of a team to the incubation process. #MusicBricks mentors did not underestimate these aspects and took them constantly into account when advising teams, playing a mediator role every time this was needed.



4. Elements relevant for innovation policies

Central to effective policy-making activities around the music sector in the light of this project must be the understanding of the environmental shift outlined in the introduction. As an industry based on participatory, read-write principles and as a creative market of active contributors rather than passive consumers, policy must reflect this level of agency as well as support the removal of barriers to meaningful participation in an active, creative life regardless of gender, ethnicity, ability or disability.

1. Acknowledging unconventional actors

DIY, makers, hackers, or simply researchers and entrepreneurs who do not fit into one single box or category, tend to be treated as an accessory of research institutions. The Evaluation Summary Report (EsR) of proposals submitted recently by project partners will exemplify this misconception:

“Even with the assumption that the project achieves all its stated aims, it would only foster a community that would ultimately be the “consumers” of technological and scientific results produced by more traditional research endeavors requiring well-trained, highly qualified researchers, infrastructure, and exposure to the cutting-edge research initiatives. The DIY community indeed plays an important role to translate such results and machinery to certain products and other secondary innovations, but these innovations and products are far from being transformational: As an example, they would not be the inventors of 3D printers but its users; not the inventors of hardware platforms but users/configuration experts of them”.

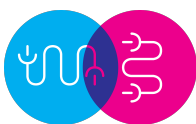
Most of #MusicBricks incubatees are young, engaged in different disciplines and offer multiple viewpoints, are eager to learn and self-train, and are above all ambitious. What they achieved and delivered in a few months is of undoubted value and the chances that at least one of the prototypes becomes a successful product are not unlikely. Multiple and different angles are an asset that should be more valued not only by research institutions and industries, but supported in the education system with multidisciplinary and hands-on programmes. Finally, light legal forms and processes should be available to small actors that don't have a large structure and dedicated staff to deal with aspects like contracts or IPR.

2. Breaking silos between research and market

When engaged in a market-oriented process, researchers can deliver extremely concrete results; at the same time, developments conceived for the market can feed back into research (see the case studies section above). #MusicBricks reduced the distance between research and market through a hands-on and results-oriented process which resulted in a close collaboration between research experts and creative innovators. An Innovation Action may be a short-term programme, but if managed well with open innovation methodologies, it can prove extremely productive for connecting a community with diverse expertise and ensuring a fast-track to innovation.

3. Valuing mentoring activities

Despite being invisible in the final results, the mentors' work is essential in ensuring a project success. Mentors can open up new perspectives, spark out-of-the-box and strategic connections, relight enthusiasm when teams are facing hard times, provide high level technical and strategic support. Classic incubation and acceleration centres tend to assign mentors specialised in a functional area (e.g. business plan elaboration, communication...) and not necessarily in the target market; #MusicBricks incubatees were assisted by consortium experts having a multi-faceted experience of the music industry and related fields.

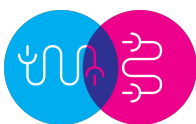


4. Fostering synergies-led innovation

Leveraging existing connections and resources can be extremely effective in boosting efficiency and disrupting disciplines and markets boundaries. When prototyping does not become an isolated activity but adds to somebody's occupation and interests, it can have several cascading effects: improving and inspiring the activities conducted in parallel; bridging different fields and cultures; resulting in unexpected market or application targets. Overall, when prototyping is an inclusive and collective exercise it can go well beyond monetising an idea, for instance towards creating new communities (social impact) and connecting different markets (economic impact).

5. Defining instruments which can develop such initiatives / projects further on

Measures to ensure the sustainability of an initiative must be put into place while the initiative is still active, so that there is no chasm between the end of the project and its market possibilities for a competitive advantage (new routes to investment and funding, project and brand development). If such measures (e.g. spin-off companies, establishment of a network of interest, identification of further sources of funding) are not put into place promptly, the effect of the Innovation Action is severely diluted and its impact on EU economy severely diminished.



5. Conclusions

#MusicBricks embraces the participatory music industry paradigm and has provided so far convincing proofs of its effectiveness and dynamism. By engaging research centres, industry players and creators in an ecosystem where dialogue, feedback and reciprocal learning are key assets, #MusicBricks proves the value of participation as an innovation driver. In #MusicBricks participation has materialised in the coming together of extremely varied actors, disciplines and competencies in an open innovation process; in the ambitious and collaborative mindset of incubatees; in the committed mentorship provided by the consortium; in the enthusiasm of industry players for the toolkit, the methodology and the prototypes.

The model followed by the 9 months #MusicBricks Industry Testbed led to tangible results, which are resumed here:

- Creation of 11 prototypes
- Improvement of the 8 original tools
- Addition of 4 new industry tools to the toolkit
- Consolidation of 3 existing SMEs (Muarts; Human Instruments, Phono Music)
- Creation of 2 start-ups, Sojaner and #MusicBricks, the latter ensuring the sustainability of the project core activities after the end of the European grant
- Foundation of an art collective (#WhiteMatter)
- Filing of one patent at M9
- Nomination of two projects to the Ars Electronica STARTS Prize 2016
- Social media impact in excess of 2 million

These factual results, as well as the guiding idea that music industry is evolving towards a participation paradigm, are interconnected with further elements supporting the model adopted. Firstly the transversal industry application of the prototypes, which goes well beyond the music industry perimeter and suggests the implementation of the open innovation model utilised in #MusicBricks in further industries as well as the use of Music as a social glue and shared interest to bring together innovators across all verticals. The methodologies experimented have already been acknowledged as valuable by both the European Commission and the industry, as the first integrated them into a H2020 call and the latter spontaneously joined the toolkit or followed close some of the projects. The research results generated (publications, contribution to other research projects) in the framework of a 18 months Innovation Action push to rethink R&D patterns. Finally, observing patterns, successes and difficulties led #MusicBricks partners to identify as key elements for innovation policies its silo-breaking approach, the centrality of unconventional players and the need of thinking sustainably ahead.