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« The initial version of the first INJECT ecosystem »

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# Executive Summary

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This deliverable presents the first INJECT ecosystem that was set up and tested in the Norwegian newspaper market in the summer of 2017. The first ecosystem was established successfully with the three consortium partners Hordaland, Hallingdølen and Sunnhordland as initial newspaper clients. All three are independent local newspapers (SMEs) in rural parts of Norway. During this first ecosystem phase we conducted a number of tests and evaluations of the INJECT toolkit. We have identified journalistic tasks that participants wish to carry out in the ecosystem, and suggestions for improvement that would be beneficial for growing the ecosystem. We have gained insight from senior staff in each local newspaper on the willingness to invest in new solutions and software to support journalists' work.

The business model for INJECT Norway is an important part of this deliverable, and it consists of three license packages; Creative, Connected and Prime INJECT. The business will be run by the commercial partner M'Labs, with support from innovation and evaluation partners in the INJECT consortium.

As of September 2017 the INJECT tool is being used in the Norwegian newsrooms, support to the newspapers is being provided by UNIB and M'Labs through the tutoring service, and strategic planning of future contracts is ongoing. This is the first version of an ecosystem for INJECT and as a result it will necessarily be generalised in order to be adapted to other national or international markets. The validated learning from the establishment of INJECT Norway will inform the design of future related INJECT ecosystems.

# 1 Introduction

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Norway is an ideal market for the roll-out of the first INJECT ecosystem. In Norway there are three dominant newspaper groups, Schibsted, Amedia and Polaris. These three groups own 107 newspapers and control approximately 60% of the accumulated newspaper circulation in Norway. Amedia alone owns 62 local newspapers across Norway while Schibsted owns both national and local newspapers. The rest of the market consists of a large number of independent "stand alone" titles and some small newspaper groups. For smaller local newspapers it is important to focus on local journalism to provide the content that their readers demand. Time is a key factor for journalists working in a local newspaper; news stories often require the journalist to undertake a lot of travel back and forth to conduct interviews to inform the stories. INJECT can support journalists to find creative angles on a recurring event or to undertake an interview.

Deliverable 2.1 defines the first Norwegian ecosystem, the roles, activities, group processes and business models that are established. The introduction describes important initial requirements and presumptions from the INJECT Grant Agreement and previous deliverables.

This deliverable can be considered a validated version of the plan for the first INJECT ecosystem as formulated in Deliverable 3.2: "First INJECT ecosystem business & exploitation plan". It is important to note that several of the presumptions listed below were modified during the validation process, and that section 3: "The first INJECT ecosystem" contains a realistic version of the ecosystem.

To make INJECT available to local newspapers in Norway significant developments in the tool tackled both the language barrier along with integration of existing tools in July 2017. INJECT operates well in local journalism offices in local communities in Western Norway and this is demonstrated in the results obtained and measured by metrics. These operative insights have been useful in the revision of the initial specification for the toolkit.

## 1.1 Initial specifications for Deliverable 2.1

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The Grant Agreement describes D2.1: Initial version of the first INJECT ecosystem as follows:

"The first ecosystem will be called INJECTION, and will be a kick-off virtual community of practice in which all INJECT project partners will collaborate online, based on documented descriptions of its activities, technologies, group processes and roles [month M9]".

The success criteria for setting up the first ecosystem are defined in general terms in the grant agreement:

“INJECT will seed, establish and grow the first INJECT ecosystem that will be composed of the consortium’s partners, and this ecosystem will undertake dissemination and exploitation activities during the INJECT project, both to elicit feedback on the digital services and to attract the first new members to the ecosystem”.

INJECT Norway has been oriented to this goal during the phase June 2017 until present (September 2017). The basis of this work is the well-researched plans formulated in D3.2: “First INJECT ecosystem business and exploitation plan”, submitted 30 June 2017. This plan governs the Norwegian endeavour therefore we will first reconnect to central aspects of this plan.

### 1.1.1 What is an ecosystem?

The structure of the media markets within the different member countries of the European Union and its partners (in this case Norway) is highly diverse. It would be highly complex to start only one business vehicle for INJECT that covers the whole market place - in terms of linguistic, legal, financial and “media-cultural” aspects. Therefore, INJECT follows the “ecosystem” approach. As mentioned in the project proposal “INJECT will develop and grow technological ecosystems that will be run to meet the specific needs of European news and journalism SMEs, in order to improve the creativity and productivity of journalists who work for these news SMEs”.

If you buy a car which is produced in a different country, you usually don’t buy it from the car company’s website but via licensed dealers in your country. In many countries there is a vital ecosystem of car sellers, garages and supply companies around a car brand. Within the INJECT ecosystem we follow a similar approach. For each country or groups of countries (like the DACH region Germany, Austria and Switzerland) INJECT seeks to build up and maintain a new ecosystem.

For INJECT an ecosystem is a complex system of contractual bindings plus software and services provided to clients, it consists of (a) a core development group, (b) commercial partners and (c) INJECT clients and customers.

### 1.1.2 The INJECT toolkit

The technology described in Deliverable 3.2 is still valid, and the version of the creative search tool described in the plan has been realised in almost exactly this way:

“Newspaper client partners in the INJECT ecosystem will be able to use the INJECT tool to write a new news story using the text editor, they can enter keywords directly into INJECT to initiate creative searches, or they can select text from the evolving story, to initiate creative searches. INJECT does not impose any restrictions on how and when the journalist can use it, so that it is open to the widest range of ecosystem journalism work practices”.

Creativity search: INJECT supports the following search angles. Future enrichment of the prompts will follow from the careful evaluation of the gathered data and enable suggestions for new

creativity prompts.

1. Backing & Evidence – search for news articles that report on quantitative evidence that are associated with the requested information.
2. Individuals, the key players – search for news articles that identify individuals who are associated with the requested information.
3. Causal, the background and back story – search for news articles that report on the causal back story associated with the requested information.
4. Quirky and satire – search for digital cartoons that are associated with the requested information.
5. Ramifications and the future – search for news articles that report on the future implications that are associated with the requested information.
6. Data visualisations, charts and infographics – search for news articles that include different forms of visual representations that are associated with the requested information.

Ease of access: in a time-pressured environment like a newsroom, it is vital that the tool is easy to access. Therefore INJECT should be easily accessible from within any journalist’s workflow. To this end, the INJECT stand-alone tool, accessible from any Web browser, provides an easy entry to the INJECT back-end functionality. The INJECT plug-in to the popular TinyMCE editor also allows easy integration with popular CMSs such as Wordpress.

News sources: journalists will be able to access established Norwegian and other relevant sources available online in addition to the sources that are already available in INJECT.

Custom archives: A special set of sources are the Norwegian news and media archives already used by many Norwegian journalists. These archives are “plugged-in” and indexed by INJECT.

Language support: There are two language-related provisions that INJECT makes to support INJECT journalists that are not native English speakers. First, the front-end of the INJECT tool is provided in Norwegian, the language of the local ecosystem. Second, crawling, translation and indexing of non-English content such as archives of the three Norwegian newspapers is supported.

Support / Bug-fixing: To better serve the INJECT journalists, we have set up a service desk to track problems and bugs found by journalists.

### 1.1.3 The initial business model

The business model was specified in some detail on pages 20-21 in deliverable D3.2. Here we highlight aspects that are significance for the work reported in this deliverable:

“The initial setup will come in the form of a first-time payment, outside the recurring license fees. Costs will include CMS integration, how much it costs to crawl search spaces, setting up INJECT for the first time, provide INJECT tutoring, and finally how much it costs to translate news

stories to the users' native language.”

“The INJECT ecosystem aims to provide two types of packages to the client: basic and integrated (full) INJECT. The basic INJECT will be available directly from the INJECT spin-off, and the integrated (full) INJECT will be available through commercial partners”.

### *Basic INJECT*

This package will provide limited search spaces, such as international news sources, and national news sources in the client's supported country. This version of INJECT will give the client access to the core tools. If the client requires more, such as an archive or CMS integration, they will have to buy an Integrated (full) INJECT license from a commercial partner. The licence is paid directly to the INJECT spin-off through the website, <http://injectproject.eu>. The licence will be less than the Integrated (full) INJECT package, which is €9,900 yearly. The licence cost for the client needs to be defined based on what is reasonable. Renewal of the licence will be yearly. The pricing model for Basic INJECT aims to reach two markets; SME licensing, and individual freelance licensing. The business model targeting SMEs will follow the same structure and nature as Integrated INJECT, though without any setup and integration offering from a local commercial partner. The business model targeting freelancers aims to sell the toolkit, not the integration, at a market-competitive subscription pricing suited for an independent client.

### *Integrated (full) INJECT*

This package will provide all available search spaces supported in the client's country. This version will provide the integrated INJECT, aligned to the client's needs, integrated in existing supported CMS and tools, and search spaces provided by the commercial partner. Integration in existing supported CMS and tools, and workshops to get the most out of INJECT is a part of an initial setup provided by the commercial partner. Support will be provided by the commercial partner and this is included in the licence fee. The licence is paid directly to the INJECT spin-off. The licence costs 9.900 Euro yearly and will be a renewal licence. Integrated (full) INJECT will cost €825 every month, and €27 daily.

## 1.2 Partners involved in Norwegian ecosystem

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The Norwegian ecosystem is being conceptualised and constructed by a number of consortium partners under the Grant Agreement. They function in a number of different roles, notably as newspaper clients, commercial partners, innovation partners and evaluation partners.

There appears to be an overlap with section 3.2 of this documents, titled “The Norwegian

ecosystem roles and members”, however, here we pose that there is a difference. While the initial ecosystem is built on the effort of the specific partners below, the ecosystem roles are general and can be taken up by any relevant organization. Section 3.2 describes the functional roles of the INJECT Norway ecosystem as they stand after the validation process has been completed.

### **Norwegian newspaper partners - HALL, HORD, SUNN**

Three consortium partners have journalists testing INJECT on a daily basis, applying the tool in real world news journalism, and reporting to the evaluation partner on a regular basis. The three newspapers have strong internal communication links due to their continued joint efforts in the HSH-LAb, a hub for collaboration in journalism innovation. The initial setup for the newspaper client partners includes:

- CMS and toolkit integration. For the Norwegian SMEs, this includes integration with Newscycle Content - and potentially DM.Polypoly (their website CMS), and internal archives.
- Archive integration, and archive crawling to index its contents.
- Workshops on how to use INJECT and how to get the most out of the product.

The three partners are:

*Hallingdølen* (HALL) is the local newspaper of the valley of Hallingdal in the mountainous region of Norway. It is owned by local families and was established in 1936. Hallingdølen publishes three printed editions each week, and is read by 17,000 readers daily, this includes the online editions which can be accessed via [hallingdolen.no](http://hallingdolen.no). The newspaper has a circulation of 8,855 and covers the areas of Flå, Gol, Hemsedal, Ål, Nesbyen and Hol. Hallingdølen employs a staff of 37 people and a revenue of 42 billion NOK.

*Hordaland* (HORD) is a local newspaper in the Western / mountain part of Norway. It is family owned and was established in the year 1883. The newspaper covers the municipalities of Voss, Ulvik, Granvin, Vaksdal and Modalen. Hordaland Bladdrift AS publishes 3 printed editions each week. Hordaland circulates 8,100 newspapers three days per week. Their daily online news service can be accessed via [www.avis-hordaland.no](http://www.avis-hordaland.no). The number of daily readers of the online and printed edition is 22,000.

*Sunnhordland* (SUNN) is a local newspaper in the Western part of Norway. It is family owned and was established in 1902. It publishes five printed editions each week and has a circulation of 6,218. It covers the areas of five municipalities Stord, Fitjar, Bømlo, Tysnes and Kvinnherad covering an area of approximately 1,900m<sup>2</sup>. About 60,000 people live in this area. It has an online news service that can be accessed at [sunnhordland.no](http://sunnhordland.no). The number of daily readers of the online and printed edition is 21,000.

### **Norwegian commercial partner - MLABS**

Since M'Labs foundation, its award winning Mobile Publishing platform has helped various businesses to engage with mobile customers in a quick, simple to deploy and cost effective way. Throughout the years, and due to the nature of their business, media companies have grown to represent a very important customer group for Mobiletech. M'Labs have worked together with both SMEs and highly recognizable brands including Washington Post, Time Warner, Voice of America, Independent, Aftonbladet and Schibsted. M'Labs established healthy and strong long-term relationships with these organisations.

M'Labs has a cross-functional design/technology/business/media team fully focusing its product development efforts in the media industry. Their mission is to open new revenue streams for our media partners by connecting with consumers in innovative, sustainable and engaging ways through technology.

### **Norwegian evaluation partner - UNIB**

The University of Bergen (UNIB) leads and coordinates the design and prototyping of the first INJECT ecosystem, setting up the structures, activities and roles necessary to manage the ecosystem along with M'Labs. UNIB's main task is to support the uptake and contextualisation of the INJECT toolkit in the newsrooms of Hordaland, Hallingdølen and Sunnhordland. UNIB will conduct ongoing evaluation with a variety of methods, all seeking to learn what works and what doesn't work. Beyond supporting the Norwegian local newspapers, UNIB will communicate with M'Labs and City, University of London to maximise technical improvements.

The University of Bergen is the second largest university in Norway and the Department of Information Science and Media Studies, the largest department at the Faculty of Social Sciences, is a rich pool of methodical and theoretical resources for INJECT. Research staff and students from Information Science have an established and broad expertise in user testing, interaction design, programming, semantic information systems, and social information systems. The Media Studies branch of the department has a long tradition in research on journalism, the consequences of digitisation in news media, visual communication, audience studies, media policy, public sphere theory, and media and democracy.

### **Innovation partners - CITY, ICCS**

Two technology partners deliver the INJECT Toolkit, they have adapted it to Norwegian user requirements, updating and improving the interface regularly, and introducing new functionality after a careful validation process with newspapers and evaluation partners.

*City, University of London* (CITY) was founded in 1894 and is based close to the City of London, where it contributes significantly to the capital's academic, cultural and business life. It has almost 22,000 students from 153 countries and about 2,000 academic, technical and administration

staff. INJECT at City will be based in its Centre for Creativity in Professional Practice in the Cass Business School, and its Department of Journalism in the School of Arts and Social Science.

*ICCS* is a non-profit private law body associated with the School of Electrical and Computer Engineering of the National Technical University of Athens. *ICCS* was established in 1989 by the Ministry of Education of Greece in order to promote research and development activity in all diverse aspects of computer and telecommunications systems and their applications.

## 2 Validating ecosystem features

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In this section we present and discuss findings from the validation work that took place in Norway in the summer of 2017. These inform the ongoing set-up of the initial Norwegian ecosystem. While such interviews and tests do not directly form a project deliverable, we aim to show how this data gathering has resulted in valuable insights that inform the finalisation of the design of the toolkit and ecosystem, i.e. the design of functionality for journalists, as well as roles, activities and online community as mandated in the Grant Agreement.

The contextual inquiries and qualitative interviews have resulted in the toolkit becoming better integrated into the newspaper partners' journalistic working process, and the pricing model becoming fair and reasonable for the particularities of the Norwegian newspaper market. The concrete implications of these empirical insights, in the form of a fully formulated and operational Norwegian ecosystem are presented in section 3: "The first INJECT ecosystem".

### 2.1 Qualitative methods

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Methods used in the data collection are as following: qualitative interviews with senior personnel validating the business model, and how the contextual inquiry was set up followed by qualitative interviews with journalists. All informants was anonymized, and we used a standard consent form. We also suppress which newspapers they work for, in order to make the anonymization stronger. A sound recording was set-up to collect the data and all recordings was transcribed into a document. The transcribed data was then used in a workshop with four persons to identify insights, requirements and patterns by collaboratively structuring post-it notes into categories.

#### **Qualitative interviews with senior personnel**

Semi-structured interviews were used to collect evidence to discover how new investments are made in the newspapers, and to engage in a discussion of the financial aspects of the INJECT product. Interviewees provided feedback on the plans for the initial ecosystem, as frank opinions were sought from decision makers in the local newspapers, managers, editors and the chairpersons of the boards.

Our aim was to investigate what is the user value and the cost-benefit analysis of each newspaper from using INJECT. During the qualitative interviews UNIB asked how investment decisions are made within the newspapers. They sought views on the initial INJECT licence packages by showing examples of initial licence packages and how they will be set up by a commercial partner in an efficient way. Finally they asked about the economic state, current and future, of each of the newspapers. Interviews were jointly conducted by UNIB and M'Labs with the interview lasted approximately one hour taking place in the interviewees' natural environment.

Insights from the interviews with the senior staff are reported in detail in section 2.3.

### **Contextual inquiry with journalists**

The goal in the contextual inquiry was to collect evidence of use, evaluation, and experience of the INJECT toolkit to inform and aid in developing specifications on new roles, specified design of the INJECT toolkit, activities and group processes. During the contextual inquiry, the journalists took part in activities that included writing a current news story with INJECT and performing creativity searches to find new angles and similar activities. The journalists also took an active part in explaining their user experience of the functionality to the interviewer to uncover assumptions and possible misunderstandings. At the end of the contextual inquiry, the interviewer summarised the interview and data collected to help extend or correct collected data with the journalists. Each contextual inquiry was conducted with one journalist and two interviewers.

### **Qualitative interviews with journalists**

During the semi-structured interviews with journalists UNIB asked questions generally on how the INJECT toolkit was perceived in the newsroom, and how the toolkit can be tailored into their working day. The contextual inquiry took place at the journalist's workspace, and a sound recording along with written notes with consent was assessed from each journalist. The contextual inquiry and qualitative interview lasted approximately four to five hours with each journalist, and the interview was conducted by UNIB.

## 2.2 Journalistic input to the design of the ecosystem

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This section reports findings from journalists testing INJECT in the summer of 2017. This section is not a validation of the INJECT toolkit in the strict sense. These tests took place with a current version of INJECT that will be developed upon as the project progresses. Reviewers will be able to read about and see these developments in the summative evaluation to be delivered in the winter of 2018.

We discovered some issues that should be dealt with *socially*; meaning that these relate more to the way journalists should collaborate and work to get the most out of INJECT, and less about technical issues such as bug fixes. Alongside we noted that there are important roles to be shaped and filled in the newsroom. The commercial company that supports the technical integration into the newsroom will also need to have a thought-through social integration of the toolkit. Here we present insights on how to tailor roles, activities and the toolkit into the journalistic work process in the three newspapers Hordaland, Sunnhordland and Hallingdølen.

### 2.2.1 Examples of valuable use

INJECT is valuable for journalists in their research to find new angles and planning new stories, but in the now, not planning too far ahead. Usually, journalists have a busy working day, and might not prioritise planning for new stories too far ahead. INJECT works well with short term planning for news stories, for example one week ahead it can support a journalist thinking of their big feature each Saturday. Furthermore, the data gathered from the journalists found that they can use the tool within three minutes or more to find an idea or new angle in the planning phase.

INJECT searches over 100 news sources while for the Norwegian partners there was a tailored integration of their own internal archives into the tool. Research found that this helped journalist to expand their horizon. Mixing the news sources with internal archives helps the journalists to get out of their local “filter bubbles”, and see the bigger picture.

INJECT is a helpful tool when the journalist is seeking to extend a story, this comes through the provision of background information, usually from internal archives but also external news sources. All journalists found it valuable to be able to use their own digital archive through INJECT by either referring to a story, or provide reusable facts from a previous story.

News stories from newspapers’ own digital archive is a powerful source made available through INJECT. When journalists searched for a company name or an actor in their local community,

INJECT provided aged news stories that the journalist might have forgotten, or had no knowledge of. This helped journalists look into facts, background and evidence to generate a new news story.

INJECT does well with feature stories and longer investigating stories. Feature stories have greater potential scope for creativity, and require the journalist to find creative and smart angles on how to approach for example the interviewee. Longer investigating stories usually require information such as evidence, numbers, and facts.

Journalists said that they are not sure if they used INJECT as intended, but it was working. One of the journalists said “I haven’t reflected on how INJECT search through search spaces and filter them, I just know that INJECT gave me something else”, and another said “researching one news story leads to another interesting angle that could be used to produce yet another story”. This insight is interesting with regards to the extent of INJECT delivering creativity support to journalists.

### 2.2.2 Stimulating the INJECT mind-set

A solution to maximise the creativity support is to seek to stimulate change in the journalists’ mind-set. Moreover, journalists need to think of how INJECT can support them by extending a story with facts, find inspiration for stories, and discover new angles in a matter of minutes.

Concrete facts such as age of a person, telephone number, and similar facts cannot really be found with INJECT. It is important to understand and work with the journalists’ mind-set to avoid undesired frustration if INJECT does not provide search results that the journalist was expecting. If the journalists require specific facts, they need to use other sources to find that information. While a Google search can give journalists facts and quick information, INJECT is not a search engine in this sense, instead it seeks information a layer down to search for the more interesting facts and angles, and present these to the journalist.

Journalists found it challenging to remember what each search strategy represented, and requested a clarification on how the algorithms behind each search strategy worked. During the contextual inquiry, journalists had some difficulties to explain what type of news they would expect in each search strategy. We solved this challenge by adding a hover-over-sentence explanation to each search strategy. As an example of this hover-over-explanation the following would be revealed “Ramification, where a user can find articles based on future implications on the national railway based on 2017 election in Norway”.

Being reminded of the fundamental journalistic dimensions of a new angle was something journalists

found interesting. One journalist said that being reminded of the different dimensions would help them to write better news stories. Recurring events was one of the examples used by the journalists, one stated: “this summer, the state broadcaster travelled with a train called the summer train to visit small towns, and it was a big celebration for the local community, so there was many people gathered at the train station that day. I could have checked out the economy dimension by interviewing shops nearby with an angle on how much they have set budget with regards to the summer train arriving”.

### **Stimulating interest in the INJECT tool in the newsroom**

During qualitative interviews, journalists said they felt alone in using INJECT within their newsroom. We solved this by extending the use of INJECT to approximately 3-4 journalists within the newsrooms to form a small community of users to keep them engaged. We have found that these groups of journalists using INJECT now share best practices with each other within their newsroom. As a result UNIB has designed a prototype of the online user community to support journalists in sharing best practice, see section 5 to read about the first ecosystem.

When introducing INJECT to a journalist, we found a need to be considerate and careful with the wording used in the presentation. Using words such as productivity, measuring, efficiency was perceived as negative from the journalists’ viewpoint, they explained that this suggested the focus would be on the journalist themselves and not the toolkit. We solved this by shifting the focus from the journalist over to the toolkit by saying “easy use” over “becoming more efficient”. We have shifted the focus from journalists being more productive and efficient to the toolkit being easy to use to change the perception of INJECT.

### **2.2.3 Two new roles**

We frame the journalists’ feedback in the context of design guidelines for the INJECT framework, i.e. what it means for the design of the INJECT ecosystem. Concretely, it means that the ecosystem should prioritize two particular social-communicative roles.

#### *“Tutor” at the commercial partner*

A tutor is a person from a commercial partner who will be the main contact to a client using/going to use INJECT. This role is important to create a positive experience for journalists using INJECT. It may lead to more journalists using INJECT within the newsroom as a result of the positive experience. During summer 2017, M’Labs and UNIB travelled to each local newspaper to follow up with an individual journalist in each newspaper and teach them how to use INJECT. UNIB sat in with the journalist for one working day to follow-up and discuss how to get the most out of INJECT. Initially, the INJECT toolkit was explained in detail in how to fit INJECT into their working day,

while focusing on how to change their mind-set. It was deemed important to show how INJECT could use news from the local community and how INJECT could enhance the journalists' articles.

### *“Agent of change” at the newspaper*

An agent of change is a person/early adopter in the newsroom who finds the INJECT search engine genuinely useful and recommends it to fellow journalists inside and outside his own media enterprise. The agent of change is a new role with the aim that this will lead to more use of the INJECT toolkit. An agent of change is a person who is either a copy editor or the editor in chief that leads the morning editorial meetings as they are the persons who should be encouraging more creativity and new ways to approach the work in their respective newsrooms. This person supports the growth of the ecosystem by incorporating INJECT authoritatively in the journalists' work days. At first it was a challenge to understand how to ensure there were good opportunities for journalists to use INJECT in their work process. To have a person within the newsroom to fulfil the role as “agent of change” assisted this. We appreciated that hierarchical structures could be different from local newspapers in Norway to local newspapers in the Netherlands, but our findings indicate that persons in charge should have this role to encourage more creativity and use of INJECT in their newsroom.

## 2.3 Adapting the business model

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In this section insights from the interviews with the senior staff, described in the methods section above, are reported as part of a lean start-up business modelling process.

The empirical study of INJECT as a service for local newspapers in Norway highlighted new possibilities for pricing that we have analysed and considered carefully. Findings from the data collection from local newspapers in Norway showed that *integration to internal archives and other services is crucial for them*, while a progressive pricing model that can grow alongside INJECT's usage and adoption is favoured as opposed to the original fixed-license pricing model. In this section we explain how we approach the business model design for the Norwegian ecosystem, our main findings, and finally how these have been incorporated into the current business model.

### 2.3.1 Lean start-up methodology

As we developed the ecosystem, we used the “lean start-up” mind-set and methodology to identify riskiest assumptions of the model, validate these and update the model accordingly. To visually communicate and discuss the model overall, we made use of the Lean Canvas: a visual tool created by Ash Maurya based on the popular Business Model Canvas created by Alexander Osterwalder. The lean canvas adaptation, provides a stronger view and insights into finding product-market fit for a new business (it considers explicitly the problem/solution/key-metrics columns) while retaining all core aspects of the original canvas.

Figure 1: The Lean Canvas – empty state.

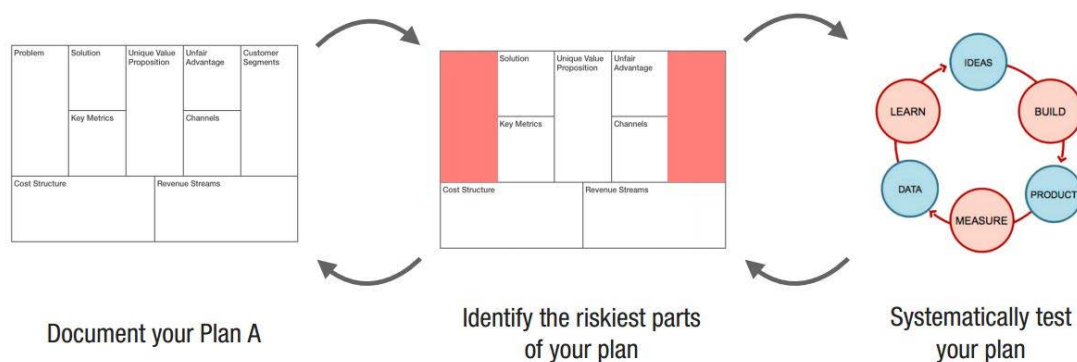


Figure 2: Simplified methodology overview.

## 2.3.2 Business model starting point and initial validation


<b>PROBLEM</b> <small>List your top 1-3 problems</small> Need to produce more original stories  Need to produce these without using additional time  Need to assure stories quality does not decrease in the process (e.g. that facts and sources are verified)  <b>EXISTING ALTERNATIVES</b> <small>List how these problems are solved today</small>	<b>SOLUTION</b> <small>Outline a possible solution for each problem</small> Search engine that quickly finds you unexpected/original angles for story building  Seamless integrated in your current workflow (favourite editor, CMS, etc.)  Connected to your trusted data sources (e.g. internal archives, validated partners, etc.)	<b>UNIQUE VALUE PROPOSITION</b> <small>Single, clear, compelling message that states why you are different and worth paying attention</small> local <b>THE INSPIRATION TOOL FOR JOURNALISTS</b> <small>Information now flows through our best 300+ journalists increasingly that the pressure of having to produce stories for an ongoing news cycle, while quality and original reporting have become more challenging. More than ever, reporters must select, verify and account for their facts.</small> <small>INJECT gives beyond conventional search engines. It helps you quickly find unexpected angles for your story and allows you to start building your article instantly, without the need to search between documents or browser tabs.</small>  <b>HIGH-LEVEL CONCEPT</b> <small>List your X for Y analogy (e.g. YouTube = Flickr for videos)</small> Future Journalism now	<b>UNFAIR ADVANTAGE</b> <small>Something that cannot easily be bought or copied</small>	<b>CUSTOMER SEGMENTS</b> <small>List your target customers and users</small> Norwegian Journalists Working in local newspapers   <b>EARLY ADOPTERS</b> <small>List the characteristics of your ideal customers</small> 																
	<b>KEY METRICS</b> <small>List the key numbers that tell you how your business is doing</small> Increase the average time that the readers stay on the newspapers website with 20 %  Reduction of 20% mean time for journalists to produce fact boxes in the articles		<b>CHANNELS</b> <small>List your path to customers (inbound or outbound)</small>																	
<b>COST STRUCTURE</b> <small>List your fixed and variable costs</small> <table border="1"> <tr> <td>Cost 1 day per month for a</td> <td>€ 3388,24</td> </tr> <tr> <td>Other indirect costs</td> <td>€ 1016,47</td> </tr> <tr> <td>Business development</td> <td>€ 2500,00</td> </tr> <tr> <td><b>Total</b></td> <td><b>€ 6904,71</b></td> </tr> </table>		Cost 1 day per month for a	€ 3388,24	Other indirect costs	€ 1016,47	Business development	€ 2500,00	<b>Total</b>	<b>€ 6904,71</b>	<b>REVENUE STREAMS</b> <small>List your sources of revenue</small> <table border="1"> <tr> <td>INJECT License price per year</td> <td>€ 9900,00</td> </tr> <tr> <td>License fee revenue share from INJECT spin off</td> <td>€ 2970,00</td> </tr> <tr> <td>Basic support estimated 1 day per month for a year</td> <td>€ 6933,33</td> </tr> <tr> <td><b>total</b></td> <td><b>€ 9903,33</b></td> </tr> </table>			INJECT License price per year	€ 9900,00	License fee revenue share from INJECT spin off	€ 2970,00	Basic support estimated 1 day per month for a year	€ 6933,33	<b>total</b>	<b>€ 9903,33</b>
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<b>total</b>	<b>€ 9903,33</b>																			

Figure 3: The initial INJECT Norway business model.

We started our business model design journey by filling out the lean canvas with all the assumptions as described in the original INJECT proposal regarding the Norwegian ecosystem (see section 1 above). At the core of this model is the customer/problem/solution triangle.

Customer segment	Top 3 problems/needs	Top 3 INJECT solutions
<i>Norwegian journalists working in local newspapers.</i>	need to produce more original stories	Search engine that quickly finds you unexpected/original angles for story building
	need to produce these stories without using additional time	Seamless integrated in your current workflow (favourite editor, CMS, etc.)
	need to assure stories quality does not decrease in the process (e.g. that facts and sources are verified)	Connected to your trusted data sources (e.g. internal archives, validated partners, etc.)

Table 1: The customer, problem, solution triangle.

Starting from these assumptions, we moved to verify how well our current solution solves the problems. All the findings from this perspective are shared in detail in further sections of this deliverable.

From a business model perspective, it became clear that for our customer segment INJECT must be integrated with internal archives and with the currently used editorial systems.

<p><b>PROBLEM</b> <i>List your top 1-3 problems.</i></p> <p>Need to produce more original stories</p> <p>Need to produce these without using additional time</p> <p>Need to assure stories quality does not decrease in the process (e.g. that facts and sources are verified)</p> <p><b>EXISTING ALTERNATIVES</b> <i>List how these problems are solved today.</i></p>	<p><b>SOLUTION</b> <i>Outline a possible solution for each problem.</i></p> <p>Search engine that quickly finds you unexpected/ original angles for story building</p> <p>Seamless integrated in your current workflow (favourite editor, CMS, etc.)</p> <ul style="list-style-type: none"> <li>- <b>inCopy and newscycle</b></li> <li>- <b>Adger Media VMs</b></li> </ul> <p>Connected to your trusted data sources (e.g. internal archives, validated partners, etc.)</p> <ul style="list-style-type: none"> <li>- <b>Visiolink for Internal archives</b></li> <li>- <b>Other sources for local content - e.g. facebook local events; people; etc.</b></li> </ul>	<p><b>UNIQUE VALUE PROPOSITION</b> <i>Single, clear, compelling message that states why you are different and worth paying attention.</i></p> <p><b>THE INSPIRATION TOOL FOR JOURNALISTS</b></p> <p>Information now flows through our lives 24/7. Journalists increasingly feel the pressure of having to produce stories for an ongoing news cycle, while quality and original reporting have become more challenging. More than ever, reporters must select, verify and assure for their facts.</p> <p>INJECT goes beyond conventional search engines. It helps you quickly find unexpected angles for your story and allows you to start building your article instantly, without the need to switch between documents or browser tabs.</p> <p><b>HIGH-LEVEL CONCEPT</b> <i>List your X for Y analogy e.g. YouTube = Flickr for videos.</i></p>	<p><b>UNFA</b> <i>Something bought or</i></p>
	<p><b>KEY METRICS</b> <i>List the key numbers that tell you how your business is doing.</i></p> <p>Increase the average time that the readers stay on the newspapers website with 20%.</p> <p>Reduction of 20% mean time for journalists to produce fact boxes in the articles</p>		<p><b>CHAN</b> <i>List your or outbox</i></p>

Figure 4: Zoomed in canvas on Problem/Solution fit.

Integration with internal archives was successfully executed during the summer of 2017 for our early adopters (the three Norwegian local newspapers), they all shared a common archiving system: VisioLink.

Our experience with the integration, combined with the importance of this for our customer segment creates an impact in the initial cost structure prediction. At the same time, our early adopters also pointed out issues with the initial revenue structure and pricing model, namely that having a fixed-fee installation based license would not suit their needs due to the wide varied newsroom size across different newspapers (a newspaper with five journalists cannot afford to pay the same as a newspaper employing fifty journalists).

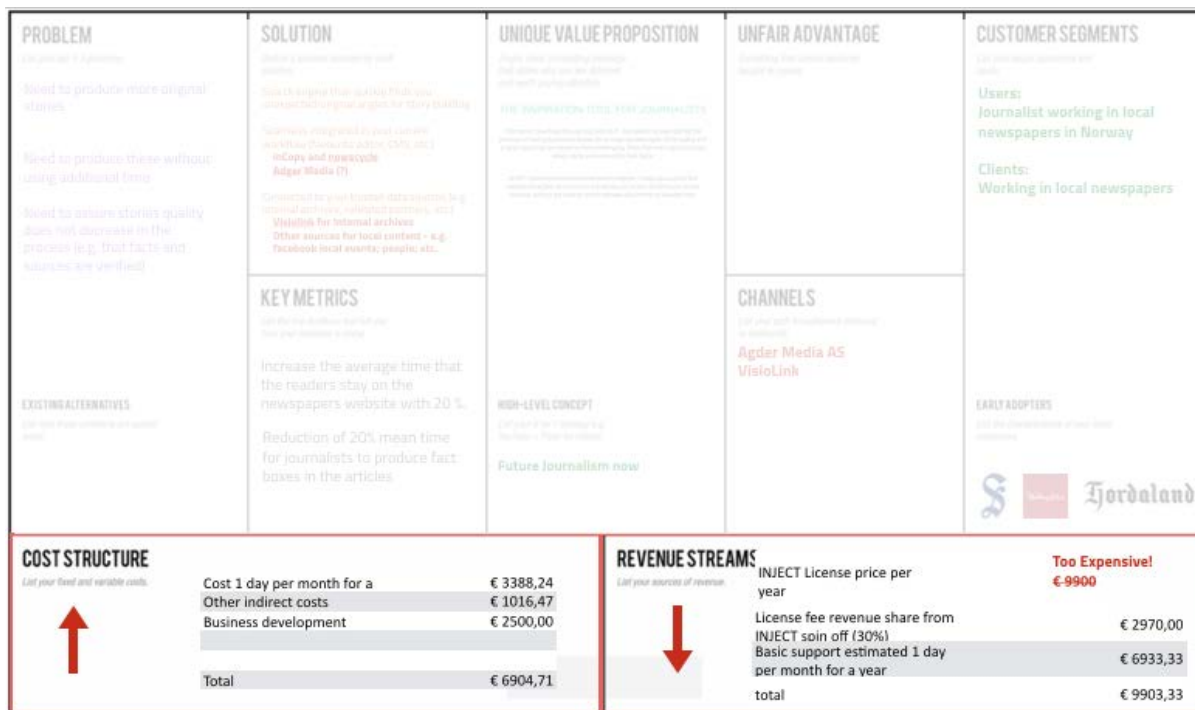


Figure 5: Focus on cost structure and revenue stream canvas sections - validations show a mismatch between our initial assumptions and reality on both the cost and revenue sides.

In practice, we realised our costs assumptions were too low (we must account for integrations cost) and our revenue assumptions too simplified (different newspapers must pay different overall amounts for INJECT Noreg). This led us to adapt both of these sections in our business model, by digging deeper into pricing expectations, resistance levels and corresponding pricing models.

### 2.3.3 Cost Structure and Revenue Streams adaptation

Full integration with the CMS and existing tools is a requirement for investment, as stated by journalists in all three newspapers. Without this feature they would hesitate to recommend INJECT to their colleagues as a result the grassroots recommendation will falter. In the Norwegian context at least, a fully integrated INJECT is the most relevant model. This includes integration with internal archives as well as integration with their text editor within their CMS; Adobe InCopy. The toolkit is now integrated into their text editor within their CMS to allow easy access to the toolkit.

Full integration with the newsroom's CMS and existing tools creates value for the newsrooms and its journalists. Internal archives are more useful now than before. Comparable studies by NRK Beta show that an increase in using internal archives implemented with algorithms leads to greater use of the data among journalists (NRK Beta, 2017). Similarly, INJECT uses algorithms to collect older news stories and present them in new light for journalists. This supports the argument that full integration with editorial tools is important to make the ecosystem grow.

During the qualitative interviews with senior staff we found out that the price of a new software service must be lower for smaller organisations than for larger ones. Informants said that the licensing model must be scalable to fit both small and large media organisations, and differentiate in a fair way. Smaller media companies have tighter budgets than larger media organisations and often feel they can't afford features that larger media enterprises can. Furthermore, smaller media organisations are facing a financial challenge like most newspapers do. Print advertising declines and revenues from paid content, online advertising and subscription will not make up for the drop in the foreseeable future. At the same time the general costs of the newsrooms are increasing.

Although there is a motivation for change among senior staff in all three newspapers, the newspapers' economy constrains their incentive for investing in technological innovations.

These growing expenses and tight budgets imply that the cost of licence is crucial to their willingness to purchase it, more so than in other periods where their economical circumstances were more favourable. If the price of an investment is as large as the estimate in Deliverable D3.2 (€9, 900 or NOK 100 000), the board would have to be consulted, if the proposition was at all considered seriously. There is an important nuance here that if the investment in INJECT can replace an existing expense and does a similar job better, then it would be possible to pay for an on-site licence of €9,900. But so far INJECT is not supposed to replace any services, it is meant as an original and innovative addition to the portfolio of software tools in a newspaper.

### 2.3.3 Revenue streams

It is important to have a licensing model that scales with the organisation. The licence cost must depend on the size of a given newspaper client. Several CEOs told us that by introducing an expensive on-site licence with same-fare-for-all, INJECT would exclude small and medium enterprises, or at least make them less inclined to invest. This is the opposite of INJECT's desired goal to make SMEs more competitive. Local newspapers in Norway have a volatile financial situation because their expenses are growing, even though their income may have stabilised at a sustainable level.

CEOs recommend that INJECT be based on a flexible pricing model, not a site-license, but a licence per user. If the model could be built on an initial investment cost followed by a low licence fee per journalist, it is more likely that SMEs will invest in new technological innovations like INJECT. Furthermore, this could also help the adoption of INJECT in the newsroom. The sense garnered is that

individual journalists could decide that they wish to start using it instead of the CEOs imposing it on the entire newsroom, because of the high initial investment.

To cover for the initial cost necessary to integrate INJECT with internal archives, an initial investment cost of estimated €2,000 was indicated as affordable by the CEOs. This cost would be a one-off cost, independent of the license cost.

Regarding the licensing itself, we realised we needed a progressive license model. We introduced two axes of pricing variation:

- variation per number of users by introducing a user-based license
- variation per INJECT features by providing distinct plans, corresponding to distinct user-license prices

By having structured conversations with the newspaper CEOs, we learned that we could structure price resistance per user per year in the following way:

- up to 50 Euros per user per year: very low resistance
- up to 150 Euros per user per year: medium resistance
- up to 300 Euros per user per year: strong resistance

## 2.4 Decision making hierarchy in local newspapers

Our validations gave us valuable insights about how decisions are made about buying new services and/or equipment in local Norwegian newspapers. Depending on the price, high level decision makers may be involved in the process of investment. The board is involved if the investment is over the annual budget. The higher the investment cost is, the better documentation is needed for the board to make a decision. Documentation such as backing and evidence to show how the SME could benefit from the investment may become crucial if the price is set at a high rate.

If the investment is below what the annual budget can accommodate, the editor in chief together with finance manager and ICT manager will conduct a cost benefit analysis. To convince the editor in chief a strong case would need staff enthusiasm as a core component. If journalists are enthusiastic about a new software they have to convince their editor in chief and then the editor in chief has to consult the CEO/board. If the request comes from the administration, then the CEO is consulted and then together with the board.

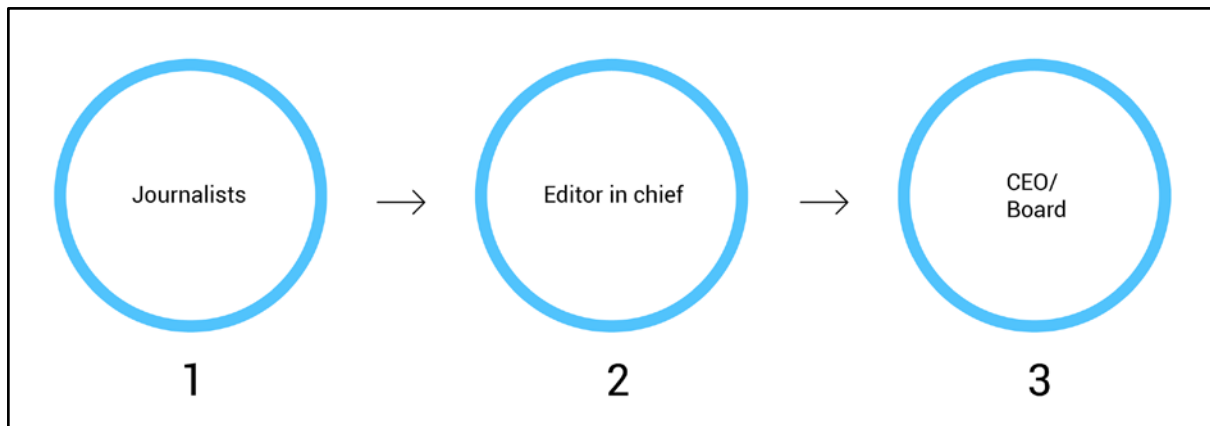


Figure 6. Investment hierarchy in local newspapers.1: journalists 2: editor in chief 3: CEO/board.

Let us expand on the point about enthusiasm. Purchase of editorial tools is starts on the basis of staff enthusiasm, and journalist's needs. This usually starts with journalists finding the editorial tool useful and presents it for the editor-in-chief. If INJECT could create enthusiasm amongst journalists, it is more likely for investment in INJECT.

Tools that makes things simpler for journalists and are not too expensive is vital to senior staff. If the software can make the journalists working day easier, then it is more likely for them to recommend it to their CEOs, and consequently make the media enterprise invest in the software.

On an individual level, it will be very important for INJECT to have a version that journalists can try with very low (or zero) cost and make use of individually. These journalists, if working within a newsroom (or becoming later on part of a newsroom), will serve as INJECT ambassadors, and can become a prime sales channel for newsroom plans.

In sum, we identified a bottom-up innovation diffusion approach where staff enthusiasm goes hand in hand with functionality, and is a key enabler for triggering an investment.

## 3 The first INJECT ecosystem

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The ecosystem is being designed with a schedule for events, a timeline for its development towards June 2018, and a directory structure for organizing discussions, documents, and resources. We present the INJECT online community, adjusting the ecosystem licensing model, ecosystem roles, and public relations (PR) for the Norwegian ecosystem. Each will be elaborated in detail.

### 3.1 The Norwegian ecosystem business model

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Through the process of ecosystem validation and section 2.3 Adapting the business model, we have evolved our business model overall, with a noticeable impact on the revenue streams structuring. By combining the axis of variation with the price resistance points, we co-designed a revenue stream and licensing model with our early adopters. We now have three different types of plans all with a “one-off” initial set-up cost and a license per user per year income.

*The Creative Newsroom* package includes the creative search tool integrated with standard editorial tools and integration with client’s local archive.

*The Connected Newsroom* package includes the creative plan and a creative search on additional pre-selected public databases such as the Norwegian national statistics database, and the Norwegian traffic authority database (searchable databases set will grow over time) and possibility to search other newsroom archives under agreement with these (e.g. Sunnhordaland and Hordaland can share archives).

*The Prime Newsroom* package includes the connected creative plan; access to the INJECT interactive fact-box engine and community (curated fact boxes shared amongst INJECT members); and access to INJECT premium creative data engagement widgets (e.g. customisable interactive data visualisation widgets designed to increase user engagement and on-site time).

The table gives a more comprehensive explanation of each package.

Plan Name	Description	Sales pitch	Client testimonial example	Initial setup cost	Pricing per user per year
Creative newsroom	Includes the creative search tool integrated with	Write original stories more effectively by	“With INJECT creative search we are able to bring new, fresh	2000 €	50 €

Plan Name	Description	Sales pitch	Client testimonial example	Initial setup cost	Pricing per user per year
	standard editorial tools + integration with client's local archive.	creatively combining content from your local archive content and the freshest story sources.	<i>angles into otherwise predictable stories. Every year we write about Norway's national day: 17 of Mai. By combining our archives with the latest news sources, we are able to bring our readers original takes on this important day, like last year's piece where we shared historical events that happened on the same day all over the world, plus pictures of our own archive from all past 17 of Mai coverage."</i>		
Connected newsroom	Creative plan + creative search on additional pre-selected public databases such as the Norwegian national statistics database, and the Norwegian traffic authority database (searchable databases set will grow over time) + possibility to search other newsroom archives under agreement with these (e.g. Sunnhordaland and Hordaland can share archives).	Uncover new and surprising story angles by seamlessly combining search across public relevant data sources, your own internal archive and even partner's archives. Use and share pre-authorized media content while staying original, for a fraction of the production cost.	<i>"By seamlessly connecting with the national statistics database and being able to search that and out internal archive together, we extract new insights and ideas that allows us to quickly find new interesting story angles and execute on them."</i>  <i>"INJECT connected newsroom enables us to easily share archive content with our partners, and rapidly include pre-authorized media content in our stories (e.g. pictures) for fraction of the production cost."</i>	2000 €	150 €
Prime newsroom	Connected creative plan +access to the INJECT interactive fact-box engine and community (curated fact boxes shared amongst INJECT members) + access to INJECT premium creative data engagement widgets (e.g. customisable interactive data visualisation widgets designed to increase user	Bring your stories to the next level by presenting your readers novel information interaction experiences. Increase reader engagement up until 20% with INJECT's interactive fact boxes and reader engagement widgets.	<i>"By using INJECT's factbox engine, we are able to smartly re-use previously verified facts from ourselves and our trusted network, and have reduce factbox production and checking time by 20%"</i>  <i>"INJECT creative engagement inspire our journalists to go</i>	>=2000 (budget on-demand)	250 €

Plan Name	Description	Sales pitch	Client testimonial example	Initial setup cost	Pricing per user per year
	engagement and on-site time)		further in digital interaction with our readers, while providing templates that are easy to configure and re-use across stories”		

Table 2: The three-part business model.

Note that the above plans structure is based on the INJECT Norway point of view. As other ecosystems develop there will need to be some level of consistency across these. For example, we envision that there will be some separation between INJECT for individual/freelance journalists and newsrooms. The plans above are designed for newsrooms, so all are paid for. There will be no free versions for newsrooms. We offer a three months trial. So the newspaper client pays the €2,000 for initial setup plus €50 per user per year, but they can quit after three months if they want (by default contracts are renewed yearly). What we will give away for free, is the entry point plan for freelance/individual journalists. So if you are a journalist working for Romsdals Budstikke and you hear about INJECT and want to try it, you can trial it. If you like it and would like to bring it into the newsroom then you will see that here are newsroom pricing plans. In essence this means that we do not give away anything for free to other companies, only individual users.

As we articulate between different INJECT ecosystems, here should be a plan to qualify and convert users from individual users to newsroom users whenever that makes sense. This is relevant because we have learned that journalists themselves, on an individual level, can highly influence newsroom buying decisions. We explore more on this on the next point.

### 3.1.1 Financial projections revised

#### Assumptions

Total newspapers	250	Plans distribution		Price per user per year	Average number of users
Penetration rate	10 %	Basic	30 %	50	12
		Connected	60 %	150	12
		Prime	10 %	250	25

We keep the same expected penetration rate of 10% as originally (starting from a 250 universe of local Norwegian newspapers) and distribute plans according to our expectation that most clients will choose the connected plan. The average number of users per client per plan is based on insights from our early adopters.

## Financial projections

Per plan	Number newspapers	Number users	Revenue per year
Basic	7,5	90	4500
Connected	15	180	27000
Prime	2,5	62,5	15625
		<b>Total gross revenue</b>	€ 47 125,00
		<b>Cost of license current model</b>	€ 32 987,50
		<b>Indirect costs (20% rev)</b>	€ 9 425,00
		<b>Profit</b>	€ 4 712,50

We have revised revenue projections considering installation costs break-even so we do not consider these in our calculations.

As we can see above, the financial projections for the commercial partner show a significant reduction in relation to the original model. For example, we now expect a total gross yearly revenue of 47,125 Euros, in contrast with the original 247,583. Although this is five times less and indisputably shows that expectations regarding the market size need to be re-aligned, costs also reduce significantly, since a big slice of revenue on the previous model was based on ongoing maintenance and support to the system (where archive integration was included previously). As a more significant metric, we calculate an effective profit reduction from 30% to 10% for the commercial partner in this new model.

We can sum up the biggest changes in regard to our original model as:

- based on our market study and validations of the Norwegian ecosystem, the local newspapers purchasing power is significantly reduced in relation to what was initially predicted;
- based on our predictions in face of this info and the structuring of plans and licensing per user, we anticipate a reduction from 30% to 10% in terms of potential profit for the commercial partner;
- we encourage revisiting the original 30%/70% license fee distribution between the commercial partner and the INJECT spin-off to make up for this “loss”.

Originally, the INJECT spin-off would receive 70% of the licensing value since the commercial partner was expected to gather the gross of its revenue from yearly support and customization in a time and materials way. Although this can still happen, especially with prime customers, it is clear in this new revised model that licensing revenue per user per year will be the primary revenue source. Therefore, licensing revenue sharing needs to be revisited so that commercial partners have a better incentive to execute on the business model locally. In other words, commercial partners should receive at least the percentage of licensing value as the INJECT spin-off sharing 50/50 and not 70/30. This would bring the profit back to 30% overall for the commercial partner, so even though the gross revenue is smaller than anticipated, the commercial partner could still count on around 30% profit per

customer.

These and other internal nuances are being currently discussed and will be taken into a higher level, overall vision, as other ecosystems develop and draw their own conclusions. In the end, the goal is to find the best fit between each individual ecosystem business model and the INJECT spin-off business model, in order to guarantee that both the local ecosystem can function and the INJECT spin-off can continue to develop the INJECT core product.

## 3.2 The Norwegian ecosystem roles and partners

To manage the ecosystem, different facilitator roles were defined in Deliverable D3.2 ‘First INJECT ecosystem business and exploitation plan’. We repeat them here, interpreting them in the Norwegian context, and introducing two new roles.

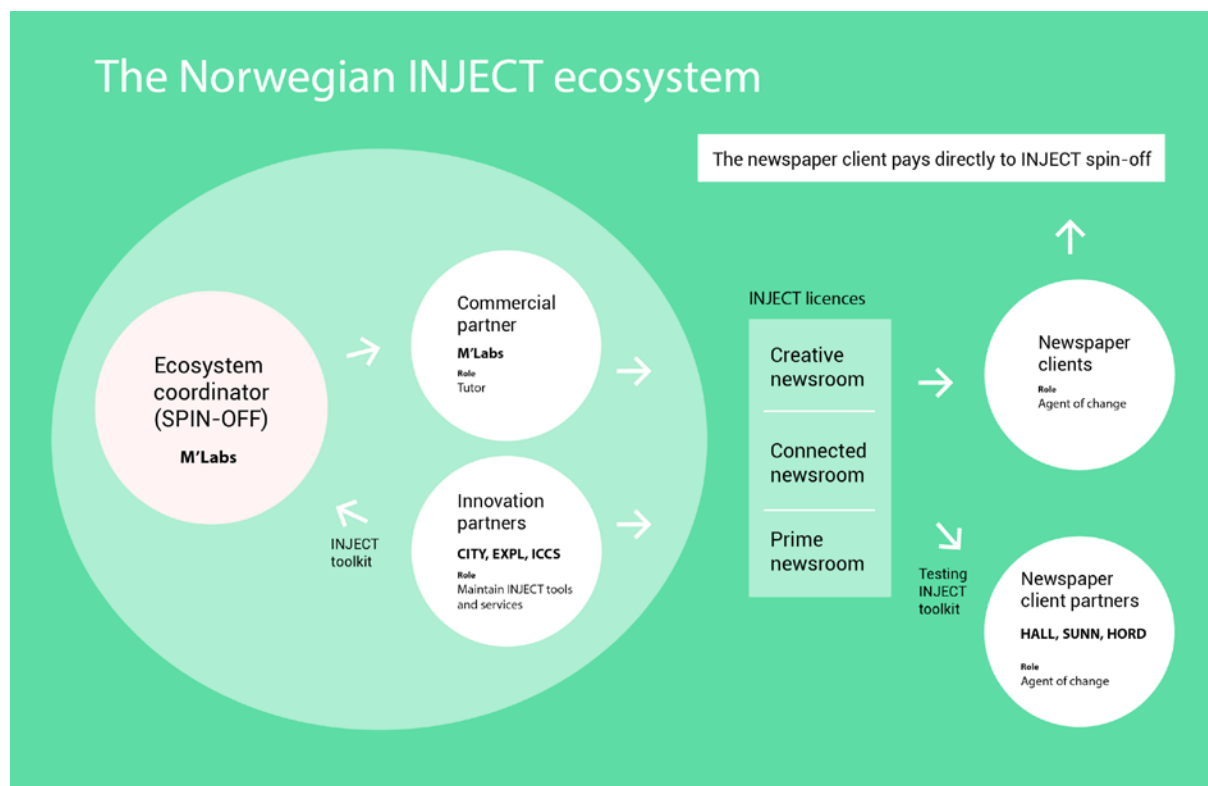


Figure 7: an overview of the Norwegian ecosystem partners and roles.

### Ecosystem coordinator – M'Labs

At the heart of the Norwegian INJECT product and brand the INJECT commercial partner acts as the key coordinator of the ecosystem. For the launch of INJECT as a commercial product, the spin-off business will maintain and undertake responsibilities as an ecosystem coordinator. The legal form and

the place of incorporation will be defined at a later stage of the project.

For activities and technologies the ecosystem coordinator is handling payments from clients, invoices from clients, payment to commercial and innovation partners selling INJECT. They make the INJECT toolkit available as software-as-a-service through the INJECT online community website. M'Labs will sell products and services on behalf of INJECT, such as integration, tutoring and metrics. The commercial partner provides the different versions of INJECT and handles first-time setup for clients. The tutor will be a main contact to a client using/going to use INJECT. As stated previously this role is important to fulfil, to create a positive experience for journalists using INJECT, and could lead to more promotion of INJECT as a result of the positive experience.

The commercial partners will aim to maximise income from the INJECT service offering. This may be achieved through direct marketing of INJECT to the news industry and journalist consumers in the commercial partner's region. It is important to note that software providers can become sellers of integrated INJECT. However, this would mean the IP issues are not solved, as the providers would be interested in selling INJECT and making a profit.

#### **Newspaper client partners – HALL, SUNN, HORD**

Newspaper client partners are partners using INJECT within their news organisation and testing new functionalities of the toolkit. Due to this role of using and testing new functionalities Prime INJECT will be offered at a low cost to these partners of INJECT. Newspaper partners also contribute with domain knowledge to technical partners in developing new features of the toolkit. News partners will present INJECT in media conferences, and share experience with future clients of INJECT.

#### *Newspaper clients*

It is important to note that the current newspaper partners are consortium partners, and therefore act as test cases for newspaper clients that would pay full price. Therefore we specify the general elements of such a role. Newspaper clients are the customers using INJECT. They have three options if they want to purchase a licence to use INJECT, namely Basic Newsroom, Connected Newsroom and Prime Newsroom. Together with the commercial partner (ecosystem coordinator), clients will find one or more persons to fulfil the role as “agent-of-change”. This person will collaborate with a “tutor” from the commercial partner.

#### **Innovation partners – CITY, EXPL, ICCS**

Innovation partners provide development and maintenance of the INJECT toolkit. Their main role is to evolve and maintain the INJECT digital services and tools, by developing new technology, and maintain established technology. The innovation partners will deliver new releases of each existing digital service and tools, as well as new services that will emerge to meet market opportunities.

### **Evaluation partner – UNIB**

An evaluation of the process of setting up the first ecosystem needs to be thoroughly documented, it should consider the support required to set-up the first ecosystem, and perform validated learning. UNIB has, in collaboration with M'Labs, conducted extensive monitoring of the innovation endeavour in Norway in 2016-2017.

Validated learning needs to be provided to innovation partners and commercial partners to further innovate the ecosystem, licensing, and identify potential inputs into the INJECT toolkit. This will help the ecosystem incrementally adapt to client needs, in the first instance this will be oriented to the INJECT Norway ecosystem, but will also be adapted to the situation in other countries for future ecosystems.

## **3.3 The Norwegian INJECT online community**

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An online community is important to share knowledge among users of INJECT. This section contains a short descriptions of a number of features that will be available in the INJECT Norway online user community. It is a virtual community of practice in which all INJECT project partners collaborate online, based on documented descriptions of its activities, technology, group processes, and roles.



Figure 7: The user community on the INJECT website.

## Documentation

### *Getting started*

Documentation explaining the user how to start to use INJECT with guidelines, tips and requirements on how to set up INJECT within the newsroom.

### *Ecosystem coordinator*

A definition of an ecosystem coordinator activities and roles. There will also be an explanation of how the spin-off should handle responsibilities.

### *Commercial partner*

A definition of commercial partner, activities and roles a commercial partner has. There will also be an explanation of the role of “tutor” and responsibilities of that role. A list of partners in each country/region will also be provided.

### *Innovation partner*

A definition of what an innovation partner is, their activities and roles. There will also be an explanation of responsibilities that this type of partner must fulfil. A list of partners in each country/region will also be provided.

*Evaluation partner*

A definition of an evaluation partner, activities and roles they have. There will also be an explanation of responsibilities this partner is expected to follow through.

*Newspaper client partners*

A definition of news partner, activities and roles the news partner has. There will also be an explanation of the new role, “agent-of-change” and responsibilities having the role. List of partners in each country/region will also be provided.

*Clients – future clients*

A future client will find information on how to prepare the newsroom to start use INJECT, and the process of installing INJECT. If the client purchases the “integrated full INJECT” there will be steps on how a commercial partner implements the toolkit into the newsroom. If the client purchases “basic INJECT” steps will also be provided.

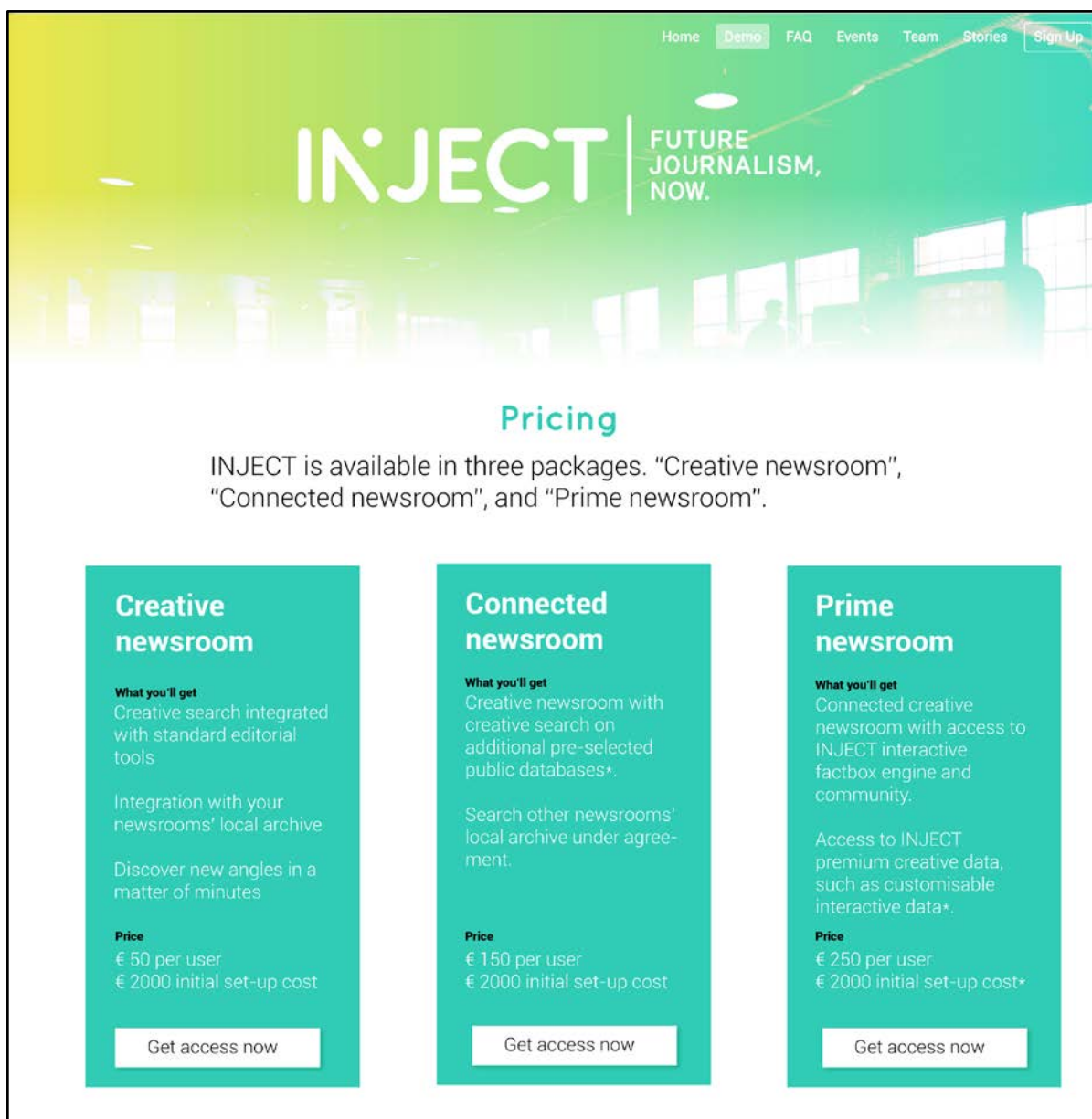


Figure 8: A presentation of how the three licensing packages are presented to future clients.

### Forum

The forum will contain questions from users and journalists can share their experience and best practice with each other. It will highlight community events journalists can participate in, and have showcases showing how INJECT works in different news organisations. A short description of each headline from figure 2.

#### *Forum popular questions*

This headline represents frequently asked questions, where users of INJECT can find information about the toolkit and ecosystem. If there is a question that is not answered, users have the ability to ask by sending an e-mail to INJECT.

#### *Forum best practices*

Best practices to start use INJECT, best practices on how to prepare a learning session with a tutor from a commercial partner, and overall usage of the toolkit provided with tips.

### *Community events*

Events such as presentations of INJECT on media festivals, conferences to share experiences with each other, and to future clients.

### *Showcases*

Sharing experiences from use of INJECT, such as success stories to share experiences to future clients and partners.

## **Resources**

A short description of each headline from figure 2. Resources will represent how-to-videos, INJECT demo and INJECT support for end users.

### *INJECT how-to-videos*

Videos provided to the end user will have a focus on how to use INJECT, made by an

### *INJECT demo*

Showing a demo with new functionalities, and giving future clients the opportunity to test INJECT, see figure 3.

### *INJECT support*

Contact information to a commercial partner within a region is provided to give clients support when needed.

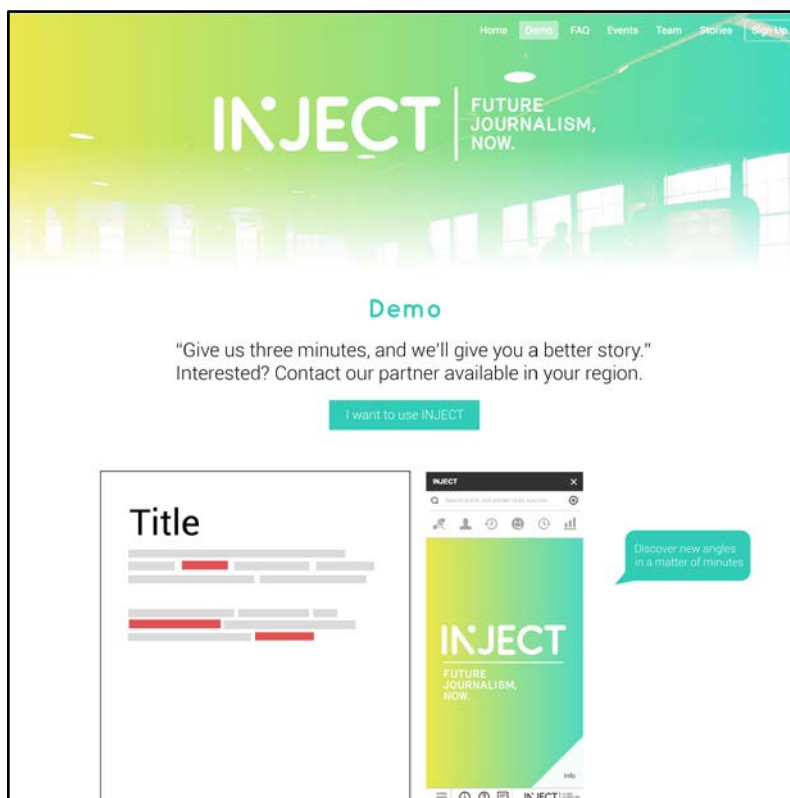


Figure 9: Live demo of INJECT give the opportunity for future clients to test the toolkit online.

## 4 Growing the INJECT Norway ecosystem

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The consortium has established the Norwegian ecosystem as the initial ecosystem with a selected group of key participants to gain commitment, test assumptions, refine the strategy, and establish success stories. Progressing from the experience in Norway, the consortium will roll out and adapt the ecosystem with INJECT partners from other countries.

### 4.1 Promoting the first Norwegian ecosystem

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The INJECT project team will implement the ecosystem prototype and give access to the INJECT participants with the first software services and novel information sources to be targeted to newspapers, existing media ecosystems, or freelancers.

#### **Success story**

One journalist from Hordaland Avis said that INJECT helped to gather facts for a news story from their internal archives. It was a story about a lawsuit between two local companies. “I should have known that the story was in our archive, but I didn’t. It was perfect since the story came up in the INJECT search result”, they stated. This is a typical scenario for journalists, missing a story because of an absence due to holiday or sickness during the days when the story was written. And while it may be an ideal expectation that journalists know and search their own archive, this may not be the case in reality.

“A lot is used from the story I found through INJECT. I felt that I saved time using INJECT, because it was a complicated lawsuit formulated in a 57 page document, and using the story from our archive through INJECT made me understand how the previous journalist formulated and understood the case, and helped me to write my story”.

#### **Branding INJECT in the Norwegian market – News partners**

To establish a word of mouth success story and show how INJECT is used and where it is used will help INJECT gain a good reputation. News partners will brand their news stories generated with INJECT to be used as a showcase/example for future clients, and to share best practices on the INJECT website.

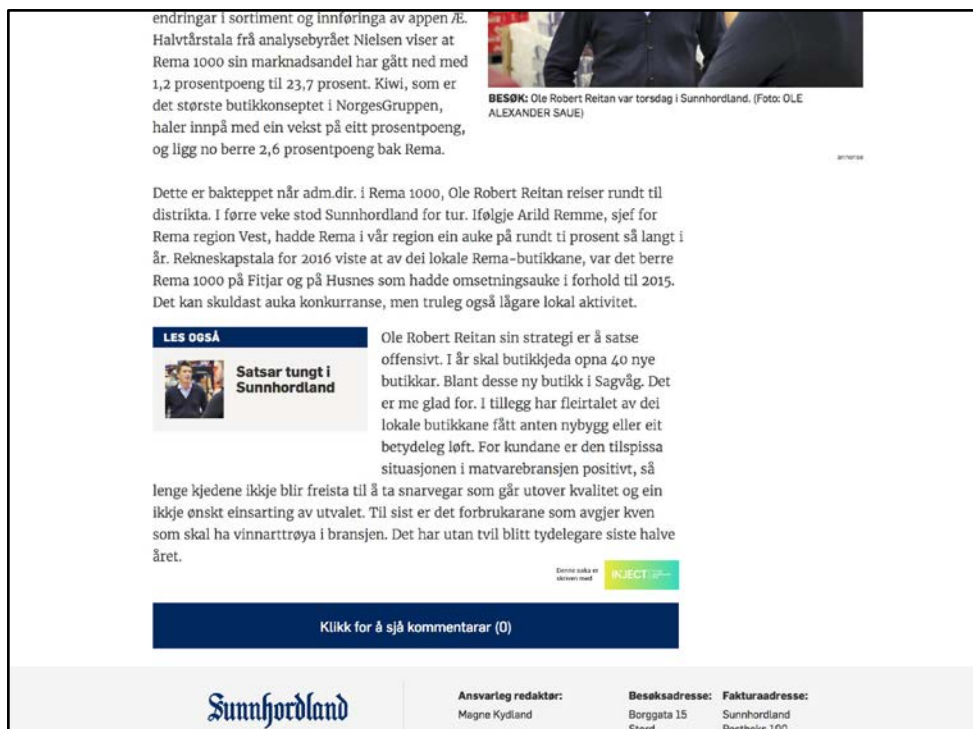


Figure 10: an example on how the INJECT logo can be shown in news stories written with INJECT.



Figure 11: an example on how the INJECT logo can be shown in news stories written with INJECT, a closer look. It states: "This news story is written with INJECT" in Norwegian.

### Word of mouth – News partners, commercial partners

The project team will consider promotion of INJECT through newspaper organisations, trade conferences, and membership organizations. For example, NxtMedia conference is a good conference to create this word of mouth reputation, MBL.no, a membership organization for media enterprises that covers 97% of Norway’s news market, <http://lla.no>, an organisation for local newspapers in Norway, and NCE Media which is the support organization for Media City Bergen.

Being present in these organisations, a local newspaper in consortium and a commercial partner would produce a word of mouth by voluntarily sharing experience with other potential clients.

For future clients, news partners along with commercial partners can present a case study on how INJECT can support journalism and how it can positively support journalists in creating better news stories - preferably with a testimonial from one of more journalists.

## 4.2 Recruiting new partners in the Norwegian ecosystem

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The main goal for INJECT is to increase the number of partners in the ecosystem beyond the original consortium members, and thereby expand the impact of the creative engine as well as generating revenue and possible financial success.

Here we present a list all the possible newspapers, other tech partners to recruit for the Norwegian ecosystem. We want to show that there is real potential to reach out and grow the income to the levels that our business plan indicates.

### **Future innovation partners – Agder Media, Volda University College**

Agder Media is a potential new innovation partner with increased reach. The company operates the basic IT-infrastructure and software that is used in the newspaper production such as CMS for publishing of the three consortium partners Hallingdolen, Sunnhordland and Hordaland. Agder Media has strong knowledge about the operational and technical integration between a variety of third party newspaper software systems. Agder Media also has the same type of partnership with a number of other Norwegian newspapers. The company could become a valuable client, since they would give us access to a larger number of newspapers and with a per-user-license there would be a increased new revenue.

Volda University College is a potential new innovation partner, with the same function as the University of Bergen. In collaboration with UNIB, associate professor Ana Laws from Volda University College will, deliver a prototype tool for visualisation of information for journalists. This can be called an infographics tool and the design work can potentially be coordinated with the search strategy “visualisation” in the INJECT search tool. Volda University College along with UNIB can explore the possibility for educational licenses with the Volda journalism school as a test case.

### **Future newspaper clients**

Sunnhordland owns a smaller newspaper Bømlonytt and is shareholder in Os and Fusaposten. Hordaland also owns a smaller newspaper called Vaksdalposten. All three could become new clients.

Agderposten Medier AS is a medium sized Norwegian newspaper company that owns six local newspapers in Southern Norway. They are: Agderposten, Varden, Vennesla Tidende, Grimstad Adressetidende, Lillesands-posten and Demokraten. All of the newspapers are potential clients.

The collaboration with Volda University College can potentially open up a large new region of Norway for INJECT. There is a large number of local newspapers in the northwestern part of Norway, and Volda University College is well connected due to their journalism education and long-term contact with newspapers. The newspapers vary in size and publish one to six printed edition each week. The newspapers have a circulation of between 1,500 and 25,000 per printed edition.

If collaboration with the consortium newspapers, Agderposten Medier AS and Volda University College is fruitful, the Norwegian INJECT ecosystem could have approximately six to nine new

newspaper clients.

### **Convincing newspapers to become clients**

In Norway there will be a launch and growth process that builds on direct relationships being made with newspapers and journalists over an extended period. It seems that the best way for journalists to start using INJECT will be if there is sincere praise for INJECT from other journalists. So we should put an effort into continue creating higher use value, and supply with word of mouth, approaching possible customers, etc.

The Norwegian ecosystem have ongoing promotion plans (see section 3.4 above). In addition to official promotion campaigns, we believe that word of mouth will help to spread the initial success stories of INJECT, and in this way trigger other players in the Norwegian journalism market to consider participating in the first INJECT ecosystem.

## **4.3 PR plan for the Norwegian ecosystem**

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M'Labs together with UNIB and collaboration with SUNN, HORD, and HALL will participate in promoting INJECT to future newspaper clients. The official launch of the Norwegian ecosystem will find place in Media City Bergen in November 2017. Firstly we present the PR plan for autumn/winter 2017.

### **Early November: Launch event**

The launch of INJECT Norway will be a soft launch in the new facilities of Media City Bergen around the first of November 2017.

### **15. November: NxtMedia Trondheim**

Furthermore, presenting INJECT Norway at the NxtMedia conference in Trondheim on 15 November 2017, will increase the visibility of INJECT in another geographical area of Norway, potentially reaching future Norwegian partners that have not heard of INJECT yet.

### **17. November: Western Norway editor association event**

One agent of change from one newspaper, one chief editor/CEO together with M'Labs will present INJECT to editors in local newspapers on this event 17 November 2017. The goal is to present INJECT to future clients of INJECT, and to get journalists to join the workshop November 29th.

### **29. November: workshop with journalists**

Agents of change from SUNN, HORD, and HALL together with interested journalists and editors hosted by M'Labs and UNIB in Media City Bergen 29 November 2017. The goal is to give the interested journalists a hands-on experience using INJECT.

### **Early December: meeting with interested chief editors and CEOs**

INJECT will be presented in detail to interested chief editors and CEOs. One journalist and one editor in chief from the Norwegian newspaper partners will join the meeting and present their experience using INJECT. The goal is to offer a licence of INJECT to the interested newspapers.

#### *PR plan 2018-2019*

- Early 2018: NODA - Nordic conference on data journalism, in Stockholm.
- April: The annual conference of the Association for Norwegian local newspapers.
- May: Nordic media festival, Bergen.

### **NODA - Nordic conference on data journalism**

NODA is a data conference on data journalism where journalists from different media houses in Norway, Sweden, Denmark, UK, USA and Germany sends in their projects. The NODA Awards will be awarded to three data journalism projects in the categories “Feature”, “Application” and “Investigative”. The goal is to present INJECT to future clients and journalists. The next conference will find place in Stockholm, Sweden early 2018.

### **The annual conference of the Association for Norwegian local newspapers**

The association for Norwegian local newspapers (LLA) have over 100 members across Norway. LLA has a goal to strengthen local newspapers and facilitate local newspapers to serve as the fourth state power, and stimulate the democracy, culture and businesses in their local community. Every year LLA hosts an annual conference for its members. In 2018, the conference will be in Bodø, Norway April 13th.

### **Nordic media festival**

Nordic media festival is the largest media conference in the Nordic region. The festival has over 1800 delegates representing the full spectrum of the industry. There is a diverse representation of media heavyweights, creative visionaries and upcoming talents. The media festival will be in Bergen, Norway May 2th - 4th 2019.