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## D2.1 – CONSULTATION PLATFORM, KNOWLEDGE BASE AND DIGITAL PROCESSES

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### Dissemination Level

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## Executive Summary

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*The first and second objectives of SpeakNGI.eu are dealt primarily within the project's Work Package, 2, Consultation Platform. The first deliverable of WP2, entitled **Deliverable D2.1, Consultation Platform, Knowledge Base and Digital Processes**, is an on-line software platform, available at <https://consultation.ngi.eu/> since November 6th, 2017.*

*The purpose of the present document is to accompany the aforementioned on-line platform with a brief description of its current status and the related roadmap for future iterations of development, as well as a description of the processes involved in operating the platform itself.*

*The NGI consultation platform described herein has been fast-tracked well ahead of the initial completion date and was successfully launched to the NGI communities during the ICT Proposers Day in Budapest, Hungary, held on 9-10th November, 2017. This enabled the collection of information already, earlier than anticipated, in order to start focussing on identification of initial sub – topics to be addressed within the already selected topics of WP 2018, including Privacy and Trust Enhancing Technologies, Decentralised Data Governance and Discovery and Identification.*

*In order to adequately manage and value the entries of the end-users, the NGI consultation platform has been designed with relevant “discussion channels” for each of the pre-selected topics, in order for the NGI communities to build the necessary components into the envisaged smaller projects' sub-topic definitions needed to organically grow each of the individual NGI topics into fruition, to enable comprehensive and high quality proposals for the WP-2018 call in April, 2018. Similarly, a discussion channel has been established for early identification of WP-2019 and Beyond H2020 topics, in order for the NGI communities themselves to organically suggest and build upon the necessary topics and sub-topics that will be selected for the next rounds of the Work programmes in relation to the Next Generation Internet initiative.*

# 1 Introduction

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## 1.1 Purpose and Scope

This document provides a status update of the SpeakNGI.eu's NGI Consultation Platform and Knowledge Base (CP / KB). The deliverable D2.1 is a software platform deliverable (OTHER), developed by the Trust-IT team, and this document's purpose is to accompany that platform deliverable with a short, user-oriented description of the platform, including a roadmap of future iterations and a description of development processes around the operation of the platform.

## 1.2 Relationship to other project deliverables

This submission is an additional description of the first deliverable for Work Package 2, Consultation Platform; thus, there is no direct relationship yet to other project deliverables.

## 1.3 Structure of the document

The document is organised as follows:

- Section 2 describes the Consultation Platform in its current form and also a roadmap for future iterations and the features to be supported together with a timeline.
- Section 3 describes the conceptual vision of the integrated Consultation Platform and Knowledge Base together as an integrated Platform with a roadmap for future iterations.
- Section 4 provides an overview of the consultation process and the curation and inclusion of knowledge generated outside of the Consultation Platform / Knowledge Base.

## 2 Consultation Platform

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The NGI Consultation Platform, (located from within the top menu of the NGI website at <http://ngi.eu> and <https://consultation.ngi.eu/>), has been developed using Drupal 7.54, which is an open source Content Management System (CMS). This platform was chosen since it has standard features that are functional and easy to use, such as content authoring, reliable performance, and excellent security. Moreover, the PHP scripting language used in the Drupal Platform was found to be extremely flexible and modular, necessary for the purposes of the NGI Consultation Platform and Knowledge Base.

The NGI Consultation Platform has been designed and implemented as GDPR-compliant.

The Consultation Platform addresses the areas related to dynamic and continuous consultation with four core objectives:

- creation of a state-of-the-art consultation platform to collate multiple open and dynamic consultation mechanisms for engagement with the NGI Stakeholder community;
- develop an open and extendable framework to structure and visualise the NGI stakeholder knowledge base generated during the consultation phase;
- establish consultation mechanisms that targets stakeholders to cover all necessary dimensions of European society;
- establish instruments to ensure sustainable access to the consultation process and knowledge for all relevant NGI stakeholder communities beyond the lifetime of the project.

### 2.1 Version 1.0 (November 2017)

The NGI Consultation Platform is designed with a user-centric layout to facilitate access to the content and usability of the portal. The platform is seamlessly accessible from the ngi.eu portal (which is maintained by the HUB4NGI Project) and it is hosted on the Trust-IT servers.

The first release of the Platform, delivered on November 6<sup>th</sup> 2017 [Month 2 of the project], presents all the main features and functionalities originally described in Description of Action (DoA), in a light version, which will nonetheless be the object of further developments in the upcoming months of the Project. All such developments will be integrated with new features that will emerge from users' needs and general changing requirements of the NGI ecosystem of projects.

All knowledge and information published on the consultation platform is moderated (owing to adequate functionalities and user hierarchy embedded in the Platform) to ensure that the content is relevant and informative.

In the present section, we provide general information about the platform, its mission and its objectives. In the following pages, there is a description of the most important sections of the Consultation Platform and Knowledge base, as well as a roadmap of the upcoming releases with the specific features that will be implemented. Figure 1 shows the current layout of the home page of the NGI consultation platform.

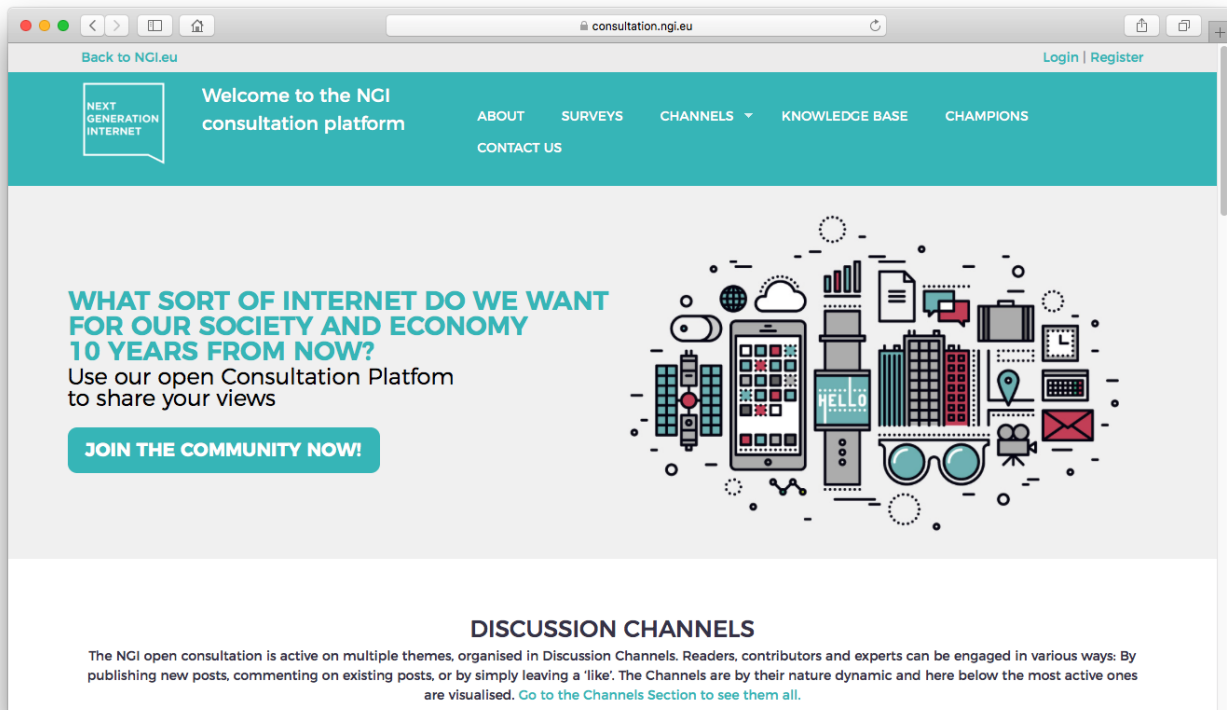


Figure 1: Home page of Consultation Platform

## 2.1.1 Discussion Channels

The Discussion Channels section<sup>1</sup> contains all the current discussions on the platform. Each Channel has a topic under which different threads are tagged. The tags help users navigate through the content. The discussions in the channel are ordered by the most recent interaction (comment or like). In the channels section, there appear boxes with the timestamp of the last interaction in the channel and three icons showing metrics for:

- **Discussions:** The total number of discussion in the channels;
- **Likes:** The mean number likes and dislikes to every discussion and to all comments inside;
- **Comments:** The total number of comments.

As shown in figure 2, a preview of the last 5 updated channels also appears on the home page.

<sup>1</sup> <https://consultation.ngi.eu/channels>



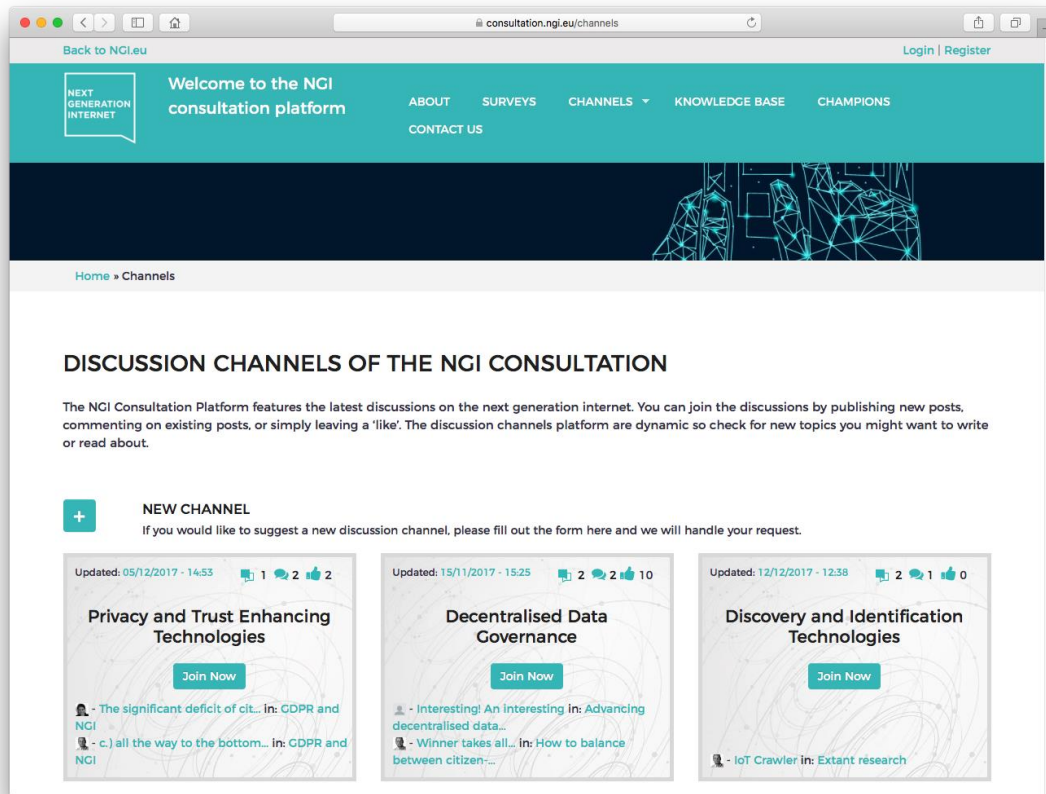


Figure 2: Discussion Channels Section

Figure 3 shows an example of a current discussion channel related to the ICT-24-2018 RIA topic entitled Decentralised Data Governance.

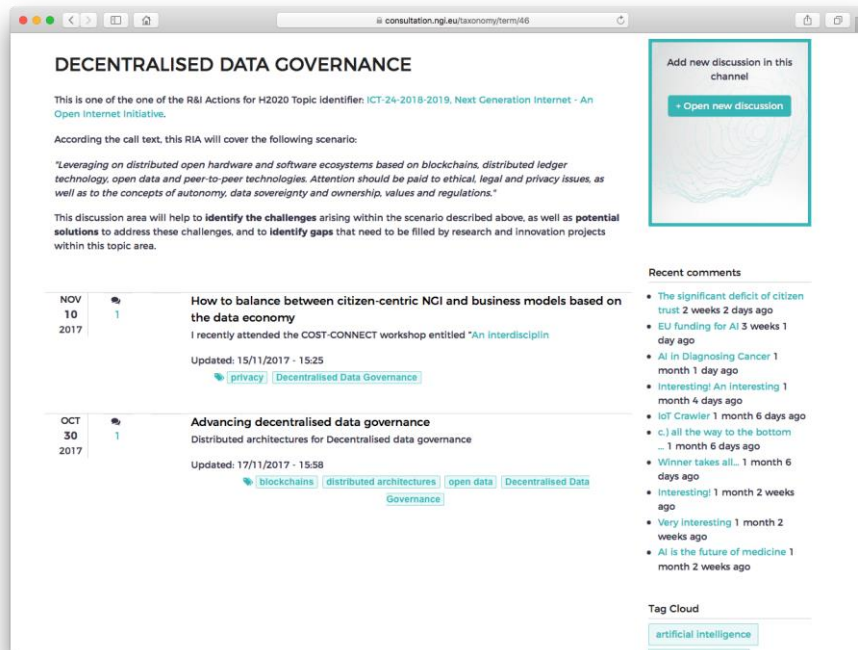


Figure 3: Example of discussion channels

## 2.1.2 Discussions

When required, users can create a new discussion, adding new content to include title, body, select the Channels where it should appear and add the tags related to the discussion. In order to assist the users, the platform already shows some suggested tags (already present in other discussions).

Each registered user is able to vote with a like on each comment and discussion, in order to highlight most interesting comments for the benefits of both other users and the knowledge base.

Tree icons are designed to show the total number of likes in the discussions, the total number of comments and the number of open discussions in the channel. When needed, discussions can be easily moved to different channels by relevant editors.

## 2.1.3 Surveys

As shown in figure 4, the surveys section hosts all surveys and forms created by Editors; these are displayed in a list with a descriptive preview of the survey. The user clicking on the survey title is directed to the survey page when filling out an open survey. In the *Surveys*<sup>2</sup> section, the currently open surveys will appear as forms that will be created by Editors to be filled out by the invited Users. On the Surveys page, the ongoing surveys will appear in order of time of the active surveys, and, below the open surveys, the Previous surveys will appear.

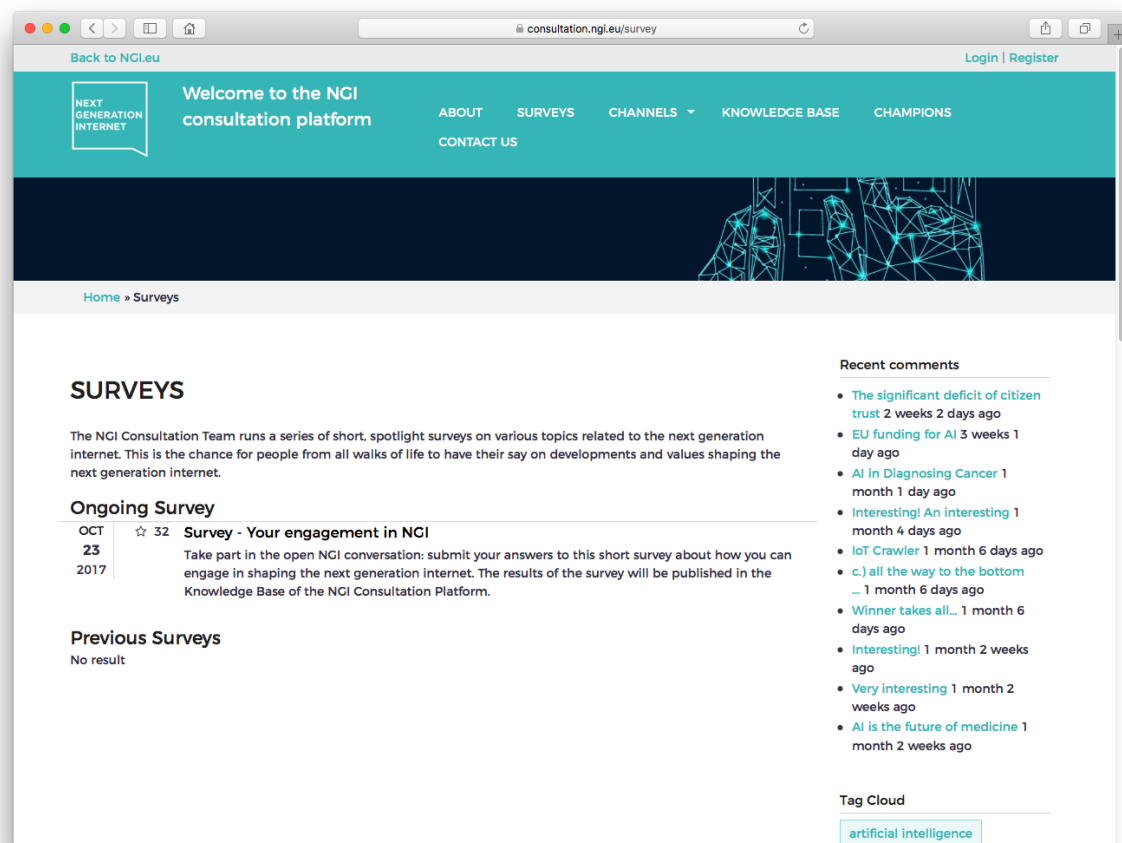


Figure 4: Survey section

<sup>2</sup> <https://consultation.ngi.eu/survey>

## 2.1.4 Knowledge Base

The Knowledge Base displays all the contributions produced on the Consultation Platform, which can be viewed by users listed by the most recent entries.

The Users can search in the section using the search box at the top. In version 2.0, an advanced search function will be added to enable users to search for content based tags (selecting from a list of the last 10 added or between those suggested by the platform), content types (Discussion, Knowledge Base or survey). Users can use the search block for content containing exact keywords or tags. Each Knowledge Base content element has a label to indicate the content type.

A more detailed description of the Knowledge Base and how it is inherently integrated with the NGI Consultation Platform is found in Section 3.

## 2.1.5 User profiles

To take part in the Consultation platform, a new user is required to register via a light weight registration process. There is also the possibility for an “anonymous user”, called Reader, whose purpose is to only read all materials available on the platform. Users must be registered to take part in the consultation. Currently, as shown in table 1, there are 4 levels of consultation platform users, namely:

- Reader (anonymous)
- User (registered via web form);
- Editor (moderator profile, managed by the WIT Team, the so-called “Editorial Team”, to curate the content published by the Users);
- Admin (technical superuser role, managed by Trust-IT to continuously test and maintain the Consultation Platform).

In future releases the User profile will be further expanded to reward “returning and trusted” Users that are providing relevant content, as described in Sec. 2.3 below.

Type	Requirements to be logged in	Action allowed
<b>Reader (anonymous)</b>	None	Reading discussions, sharing public contents.
<b>User</b>	Filling registration form	Comments and liking on existing discussions. Participate to a survey. Create a new discussion via frontend. Edit him own discussion and moderate the comments related. Submit a request of new Channel. Request a creation of new survey.
<b>Editor (WIT)</b>	Filling registration form + Admin gives editor permissions	Access to limited backend with consultation process management. Create a new Channel, discussion and survey. Moderate (edit text, or delete it) comments under discussion. Moderate existing discussion created by a User, change text, tag and move to proper Channel. Access to surveys, moderate submissions, view and download analysis of submission. Create a new Champion profile.
<b>Admin (Trust-IT)</b>	Creating new user form Admin	User has administrator access to the platform backend.

Table 1: Consultation platform user classifications

## 2.2 Architecture

The NGI Consultation Platform is developed in Drupal Version 7.54, an advanced CMS system and web application development framework offering plenty of functionalities. Drupal is supported by a strong community of developers ensuring free access to future upgrades and security enhancements.

Drupal is usually defined as a content management system (CMS) but actually it is a framework for content management (CMF). Unlike a classical CMS, Drupal is more oriented to configurability, customisation and expandability. More than on functionalities, Drupal is focused on structure and interoperability among system components and modules, which can be added or purposely developed to expand the functionalities according to the emerging requirements from the NGI Consultation process.

The NGI Consultation Platform is complemented by a series of plugins to meet the user requirements. The Drupal theming system allows usage of the latest technologies related to CSS3 and responsive grid systems, where the primary focus is in the end user experience.

The NGI Consultation Platform is designed with the following features:

- The Platform enjoys responsive website design, content's layout will be automatically adjusted to fit the screen size of the browser where it is displayed.
- It is accessible from Android, iOS, Microsoft mobile devices as well as on the following browsers: IE11, Edge, Firefox, Safari, Opera, Chrome and all modern browsers.
- The website activity related to the NGI Consultation platform is recorded by making use of the Google Analytics utilities and Google Webmaster Tools, through which the team can access information about user behaviours as and when required.
- Taxonomy is a core plugin module, which is at the base of the discussion channels organisation. Taxonomy allows Admin to have organisational keywords known in other systems as categories, tags, or metadata. It allows Editor to connect, relate and classify Discussion Channel content. In Drupal, these terms are gathered within "vocabularies". The Taxonomy plugin allows us to create, manage and apply those vocabularies. Taxonomy is also the practice of classifying content. Although we use taxonomy for related content. In the NGI Consultation Platform Knowledge Base is created to correlate the contents.

Figure 5 below schematically represents the current Architecture of the NGI Consultation Platform.

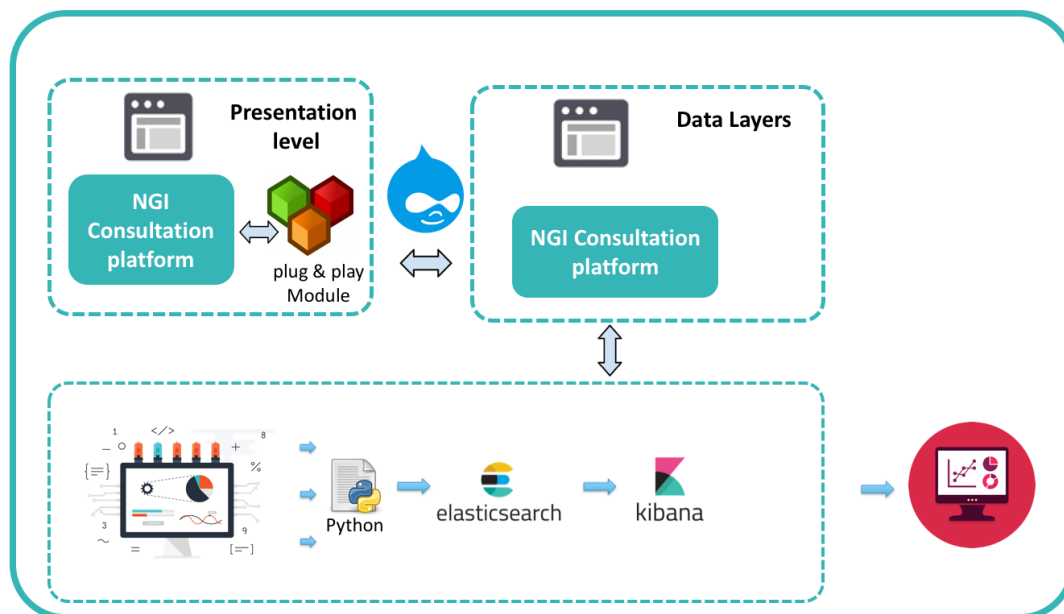


Figure 5: Architecture of the Consultation Platform

## 2.3 Roadmap for future iterations

This section describes next iterations of the consultation platform and knowledge base, each section outlining the feature set and also the expected delivery date. In addition to scheduled releases, further updates will be released based on the needs emerging from the consultation process of the NGI ecosystem of coordination and support action (CSA) projects (also known as NGI Inter-CSA).

### 2.3.1 Version 2

The functionalities of the second version, release 2.0, has been delivered on January, 2018 [M4]. The following table summarise new features available on CP V2.

New feature	Functionalities
<b>Platform fine tuning</b>	Bug fixing and addressing first round of comments from NGI Inter- CSA
<b>Users permissions</b>	Added functionalities to enable Users to add max 5 “references” (URLs) and 5 file attachments under a discussion. Allowed file extensions: txt, pdf, doc, xls, docx, xlsx, zip, tar.
<b>Knowledge Base Advanced search</b>	New advanced search filters in the Knowledge Base. The user can also filter results by: tags, channels and content types (survey, KB, discussion).
<b>Knowledge Base Section<sup>3</sup></b>	Quick access to last five contents published on the Knowledge Base (KB). Integrate into the sidebar in the KB section.
<b>European Champion Panel<sup>4</sup></b>	New Section with a short bio of each Champion and personal social media links.
<b>KB FAQs<sup>5</sup></b>	Knowledge Base FAQs page and a direct access added in the sidebar.
<b>Spam Checker</b>	Installed a spam and banned words agent for discussion and comment creation.
<b>Webinar<sup>6</sup></b>	New section has been created promote the future webinar with feature webinar-handling functionalities.

Table 2: Consultation Platform - version 2.0

### 2.3.2 Version 3

As shown in Table 3, the functionalities of version 3.0 is expected at the end of March, 2018 [M6].

New feature	Functionalities
<b>User levels</b>	<p>Three USER levels will be implemented to roll-out a policy of rewarding returning users that are providing relevant and content-rich contributions:</p> <ul style="list-style-type: none"> <li>• <b>Contributor:</b> the same capabilities of the current “User” profile.</li> <li>• <b>Expert:</b> a User with permissions to create new channels and moderate comments in discussions (after 30 discussions published and more than 100 comments published);</li> <li>• <b>Trusted:</b> A User with permissions to create, edit and moderate Channels, Discussions and Surveys. Possibility to create new Knowledge Base contents. (more than 30 discussions created and more than 100 comments)</li> </ul>

<sup>3</sup> <https://consultation.ngi.eu/knowledge-base>

<sup>4</sup> <https://consultation.ngi.eu/ecp>

<sup>5</sup> <https://consultation.ngi.eu/faq-page>

<sup>6</sup> <https://consultation.ngi.eu/webinars>

New feature	Functionalities
<b>Resources</b>	New platform section to enable Editors to create new content using external resources, attaching files.
<b>Global Internet Policy Observatory – GIPO</b>	Integration of GIPO Tool under the Consultation Platform ecosystem.
<b>NGI Awards</b>	New section guesting NGI Award section for voting. New management functionalities will be developed to manage submissions
<b>Early adopters Club</b>	New space on the platform and functionalities.
<b>Reports V1.0</b>	Added functionality of initial creation of enabling inputs and output reports as per the requirements of the knowledge base (as described in section 3).
<b>Text &amp; pattern mining</b>	End-user side & Moderator-side filters to mine the content of the KB
<b>Other</b>	Other capabilities and functionalities to be added based on specific users and administrators' needs

Table 3: Consultation Platform – version 3.0

After careful analysis, the SpeakNGI.eu project has agreed with the European Commission to take on the platform and some of the efforts of The Global Internet Policy Observatory (GIPO) study project, which developed both a web site and observatory tool. The web site is a one-stop shop on Internet Governance (IG) policy and a front-end to the GIPO observatory tool, which provides an end-to-end web crawler and web front end for knowledge extraction across a set of IG - related websites and social media channels. The tool is available as a containerized platform (see Figure 8) and SpeakNGI.eu will reuse this tool to focus on the emerging NGI knowledge in the wider community beyond the Consultation Platform.

The SpeakNGI.eu team has met with the European Commission project officers of the GIPO project and team developers of the tools and has received confirmation from both the EU Commission and the developers of a smooth transition and handover process for taking up of both the GIPO web site and the observatory tool. This discussion process is underway and nearing completion and the actual handover process is expected to kick-off in full during early January, 2018.

It is expected that some of the functionality of the GIPO observatory tool can be used for the collection and storage of knowledge related to the NGI, including aspects related to Internet Governance into the CP / KB functionalities.



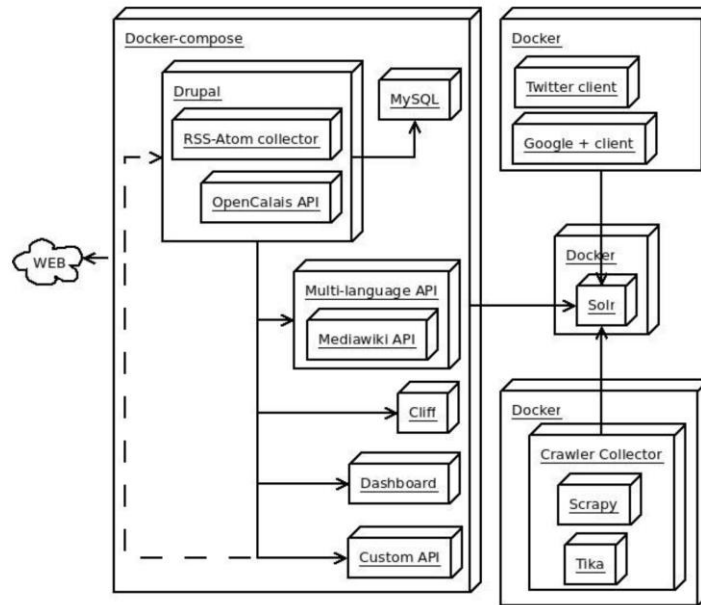


Figure 6: Component-relationship diagram and technologies of GIPO tool

Table 6 below outlines the roadmap of the activities related to GIPO integration to the CP / KB.

New feature	Functionalities
<b>GIPO platform deployed</b>	The GIPO website and observatory tool will be deployed in SPEakNGI.eu infrastructure
<b>Platform repurposed for NGI</b>	A second version of the platform will be deployed for NGI focused observatory
<b>Integration with main website</b>	The NGI observatory will be integrated into the main ngi.eu website.

Table 4: Knowledge Base / GIPO integration – CP / KB version 3.0

### 2.3.3 Version 4

As shown in Table 4, the functionalities of the fourth and last version will be delivered at the end of May 2018 [M8].

New feature	Functionalities
<b>Platform revamped</b>	Revamped user experience with new graphic layout and new revised navigation.
<b>Sustainability</b>	New functionalities will be developed linked to sustainability of the platform.
<b>Reports V2.0</b>	Additional functionality of enhanced input and output reports as per the requirements of the knowledge base (as described in section 3)..
<b>Others</b>	Other functionalities will be defined on the way based on emerging needs.

Table 5: Consultation Platform – version 4.0

### 2.3.4 Summary Table

Table 5 below summarises the overall roadmap of the consultation platform developments foreseen throughout project duration.

Version	Description of Features	Delivery Date
1.0	Platform sections created: Discussion Channels and Discussion, User registration, allow comments on discussion, Survey section, Knowledge base (first release).	November 2017
2.0	Platform fine tuning; Users permissions to add file attachments and references; Knowledge Base Advanced search; Knowledge Base sidebar; European Champion Panel; Knowledge Base FAQs; Spam Checker; Webinar section.	January 2018
3.0	Introduction of three User levels; new Resources space; GIPO Integration; NGI Awards section; Reports v1.0, Early adopters Club.	March 2018
4.0	Platform revamped and Sustainability functionalities, Reports V2.0.	May 2018

Table 6: Summary of Consultation Platform Roadmap

## 3 Knowledge Base

### 3.1 Concept

Figure 7: Conceptual View of an Integrated Knowledge Base and Consultation Platform

6, below, shows the conceptual view of the long-term vision for the integration of the Consultation Platform and Knowledge Base (CP / KB).

The CP / KB system has been specified and designed as one integrated platform that will have two primary functionalities:

1. Capturing the views of the NGI communities into a consultation platform that can be used in a dynamic and evolving fashion;
2. Capturing knowledge from legacy materials such as project reports, studies, workshops, salons, working sessions, and others, into a valuable knowledge set on NGI;

At the very core of the integrated CP / KB model is a knowledge model encapsulating the necessary drivers for the Next Generation Internet (NGI), which are addressing human values and linking with the challenges raised by those human values.

The model then allows for identification of potential solutions to solve the challenges and underpin the values. These solutions are executed through initiatives such as research and innovation (R&I) projects and/or business activities).

When the users focus their entries into the CP / KB on these human values, challenges and potential solutions to address the challenges, the model can provide a long term sustainable knowledge base that can easily provide a means of identifying and discovering gaps in research and innovation (R&I) activities in which there are no projects and/or solutions available already for known challenges. This will provide the NGI communities and policy and decision makers with valuable inputs on where funding should be urgently placed under the various topics of the NGI Work programmes in Work programmes of 2018, 2019 and beyond H2020 to address the challenges brought on as a result of the human values the NGI programme will take into account.

The identification of these R&I topics in a systematic way will drive the research and innovation focus of the NGI programme and this CP / KB can provide a dynamic and evolving view of the research landscape as the NGI work programme evolves through H2020 and beyond H2020.



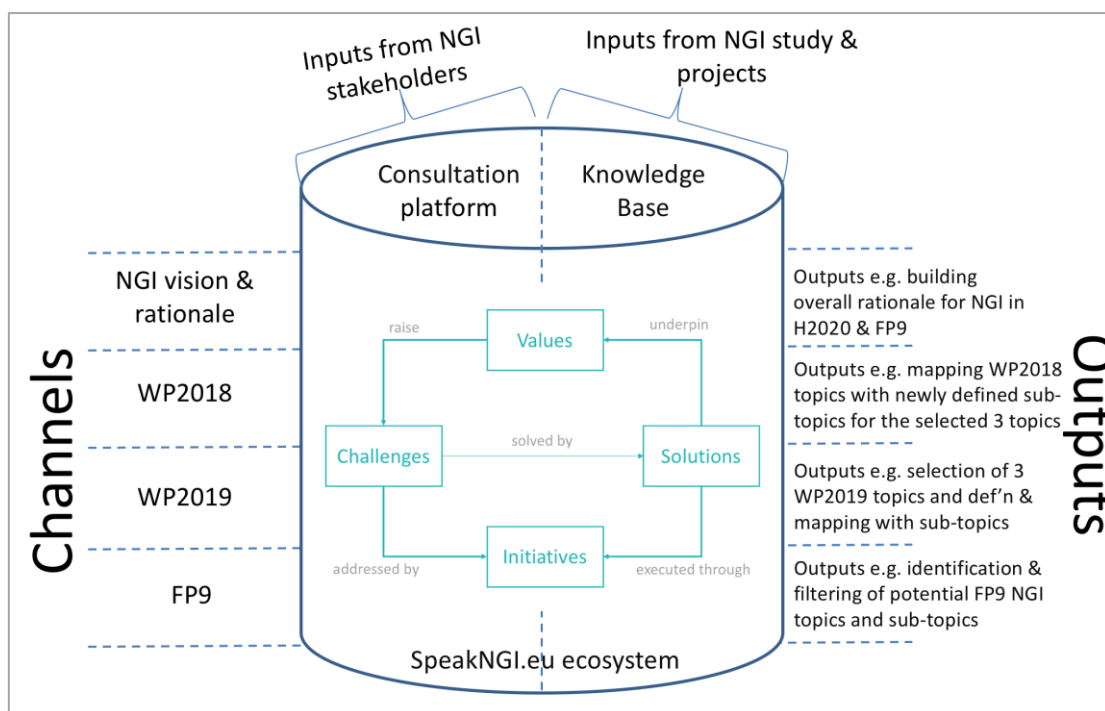


Figure 7: Conceptual View of an Integrated Knowledge Base and Consultation Platform

### 3.2 Populating the Knowledge Base

There is a significant amount of legacy material available from recent activities related to NGI (e.g. national workshop reports, NGI related studies, etc.) and new events are being held by national groups, projects, and others, and there needs to be an effective way to capture this valuable information into the NGI ecosystem so it can be used effectively towards the selection of topics for future calls, and outreach to the right stakeholders for involvement in the selection process.

Currently, those reports are sitting in different locations, including web sites, google drives, and elsewhere, and it is necessary to find a way to capture this information in an efficient and consistent manner for use in the NGI ecosystem's CP / KB in order to feed into the building of topics in the NGI Work programmes.

During the second NGI Planning Management Team (NGI-MT) meeting held in November, 2017, a team made up of the Inter-CSA coordinators of SpeakNGI.eu, NGI Move, and EngineRoom, held a dedicated session to whiteboard a structured model for collection, curation and utilising these legacy materials into the NGI Consultation Platform / Knowledge base.

The idea was proposed to share responsibility to extract from both legacy reports and new event reports into the CP / KB as shown in Figure 6 so the information can be considered effectively in the data mapping activities being carried out by the EngineRoom project during the selection of topics for the WP2019 (and beyond).

After the NGI-MT planning meeting, the inter-CSA coordinators worked on a logical model to structure a curation process for gathering information from the different NGI communities, initiatives and projects, both internal and external to the NGI CSA projects. This model is depicted in Figure 6.

This data capture structured model and curation process has been presented to the Inter-CSA Working Group participants and has been agreed by the members, and the Inter-CSA is undertaking to start the data gathering and channelling process to transcribe the legacy reports into the CP / KB.

As many of the reports are done in a longer format that might not be constructive in this kind of CP / KB topic selection process, the Inter-CSA projects are endeavouring to create a report curation template that is more focused on the identification of the human values, challenges, solutions and R&I requirements, as outlined in section 3.1.

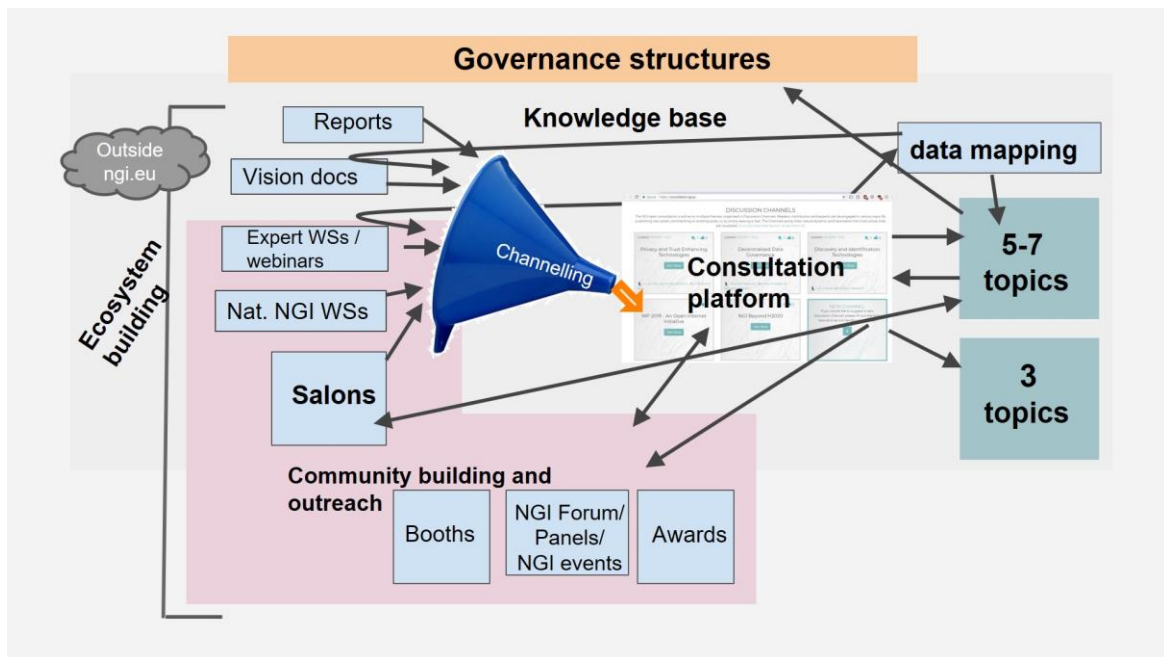


Figure 8: Curation model of capturing of Legacy and Evolving Knowledge on NGI topics

### 3.3 Initial functionalities to access the KB

As shown below in Figure 7, the initial version of the consultation platform's knowledge base (CP / KB), as previously described above in section 2.1.4, comprises an automated search facility for the CP / KB.

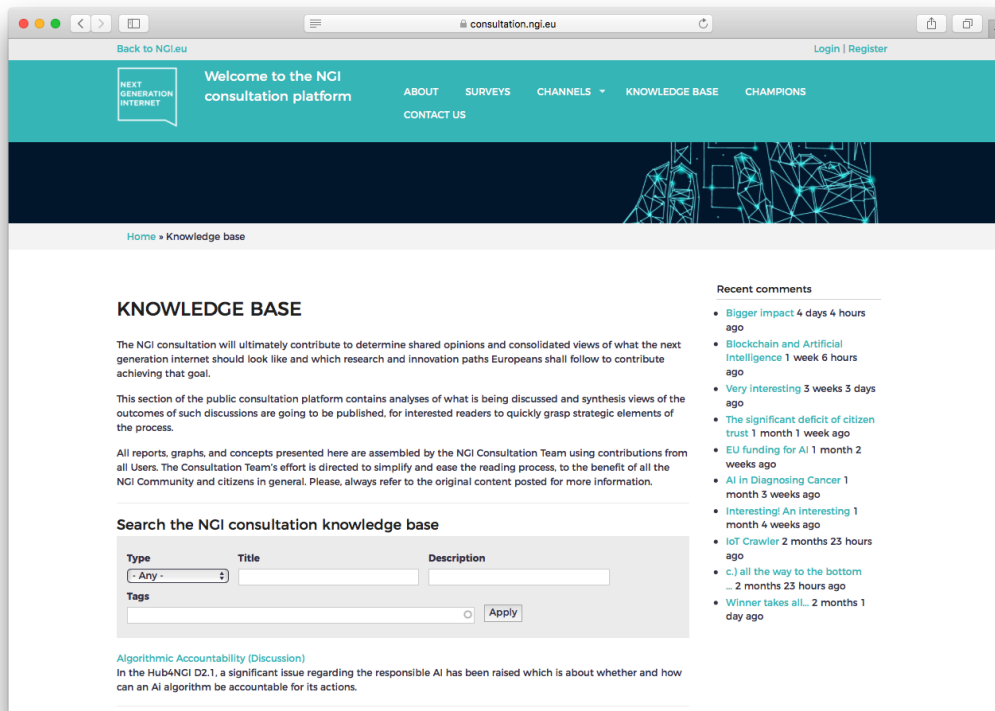


Figure 9: Current Web Interface to the initial Consultation Platform / Knowledge Base

In this section of the CP, users can find all the discussions published and search through them with filters spanning across all tags inserted in the discussions or with content type (discussions, knowledge base content and surveys).

## 3.4 Target functionalities for the final release of the KB

### 3.4.1 Version 4

**Expected delivery: end of May 2018 [M8]**

This version of the Knowledge Base corresponds with Version 4 of the Consultation platform.

This iteration is a deployment of the knowledge model as described above in the Concept section 3.1. At the core of this iteration is the NGI knowledge model, as shown in Figure 10: NGI Knowledge Model

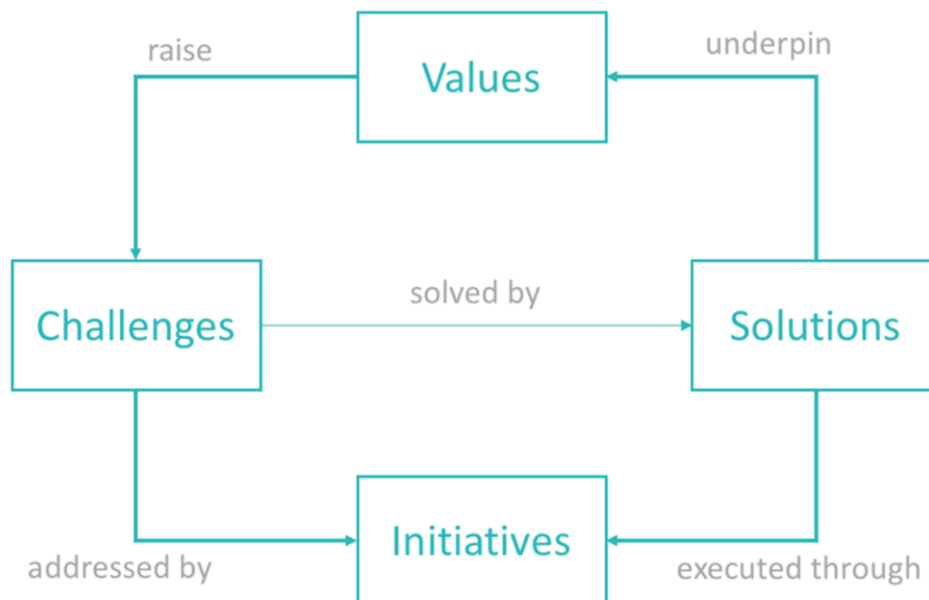


Figure 10: NGI Knowledge Model

The model will be represented in a data base, which will form the core of this iteration of the CP / KB. An editor allows for the population of this model instance. Users can add to the knowledge through this editor. A knowledge browser allows for users to discover gaps in the research activities and where particular challenges are currently being addressed in the research.

In this iteration of the CP / KB, users can generate customised reports. The user can select multiple topics, tags, challenges, values and automatically generate a report from the knowledge base from those preferences. A conceptualized view of a possible interface is shown in the figure below.

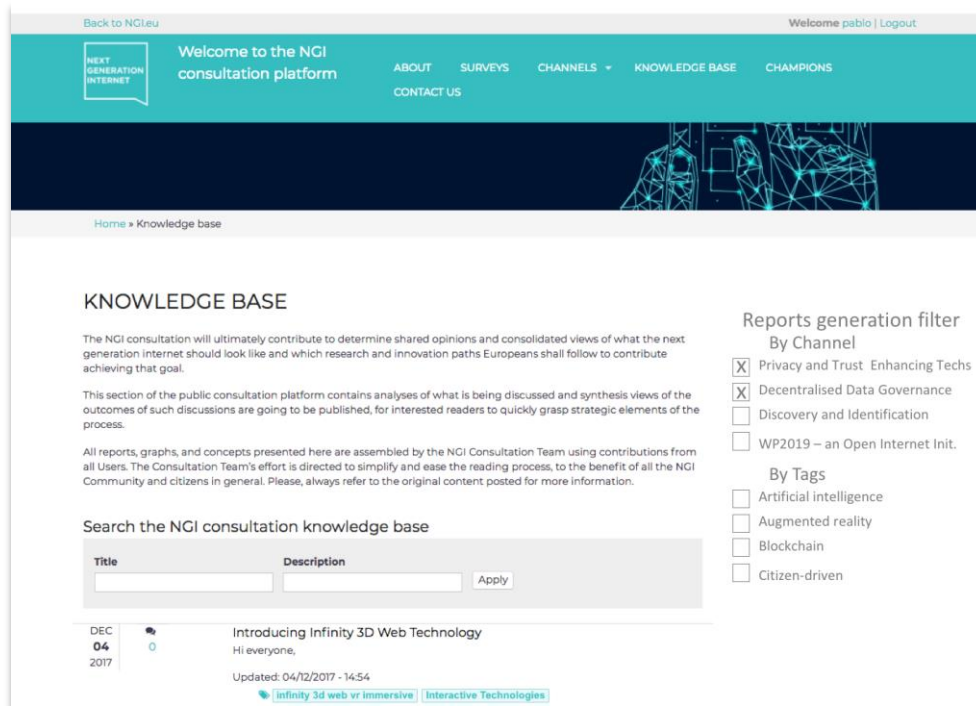


Figure 11: Web Interface to Customised Report Facility

A conceptualised sample of a user-generated report is shown in Figure 12: Conceptualised Sample of Customised Report

1.

Consultation Platform Knowledge base report (sample)	
<i>This report contains the topics posted related to the dedicated channel topic(s) and tag(s) that needs to be addressed as future R&amp;I in the future NGI calls.</i>	
<b>Channel</b>	
<b>A1</b>	<b>Privacy and Trust Enhancing Technologies</b>
<b>Challenges</b>	<p>Challenge 1: Right to be forgotten at any point in time during lifetime;</p> <p>Challenge 2: Improper handling or (mis)use of data given in lieu of payment for an app or service that is free of charge;</p> <p>Challenge 3: Having no awareness or transparency of where your data is at any given time.</p>
<b>Solutions</b>	<p>Nov 24 Solution 1: A right to be forgotten button on all apps and services that collect your data;</p> <p>2017 Solution 2: A real-time dashboard system that will tell you all (mis)uses and location of data</p>
<b>R&amp;I topics</b>	<p>R&amp;I sub-topic 1: A reliable tracking system for all individual data elements per person over lifetime that would enable a roll back of the data at any given point in time, if desired.</p> <p>R&amp;I sub-topic 2: Front end dashboard like system for collection and gathering of tracking information on individual data uses and location.</p>
<b>A2</b>	
<b>Decentralised Data governance</b>	
<b>Challenges</b>	<p>Challenge 1: how to adequately balance a "citizen centric" Next Generation Internet in an environment where the business models are largely based on the data economy, which uses citizens' data as a replacement for payment fees or subscription charges.</p> <p>Challenge 2: Today's technology favours the winner takes all solution. The effects of GDPR are also quite unknown as yet on this topic.</p>
<b>Solutions</b>	<p>Nov 28 Solution 1: Decentralised data governance is key to addressing this challenge topic;</p> <p>2017 Solution 2: Empowerment of the users over their data, more transparency and enforcement against breaches.</p>
<b>R&amp;I topics</b>	<p>R&amp;I sub-topic 1: Research and innovation into offering alternative technological solutions (e.g. blockchain) coupled with services that at least feel equivalent to existing services.</p>

Figure 12: Conceptualised Sample of Customised Report

The final envisaged web interface to the Knowledge Base is shown below in Figure 13: Final web interface to the Knowledge Base

2. The user can search the entire knowledge base, browse the knowledge base model, view customized reports, explore the documentation around the wider NGI ecosystem and explore the Consultation platform surveys and discussion channels.

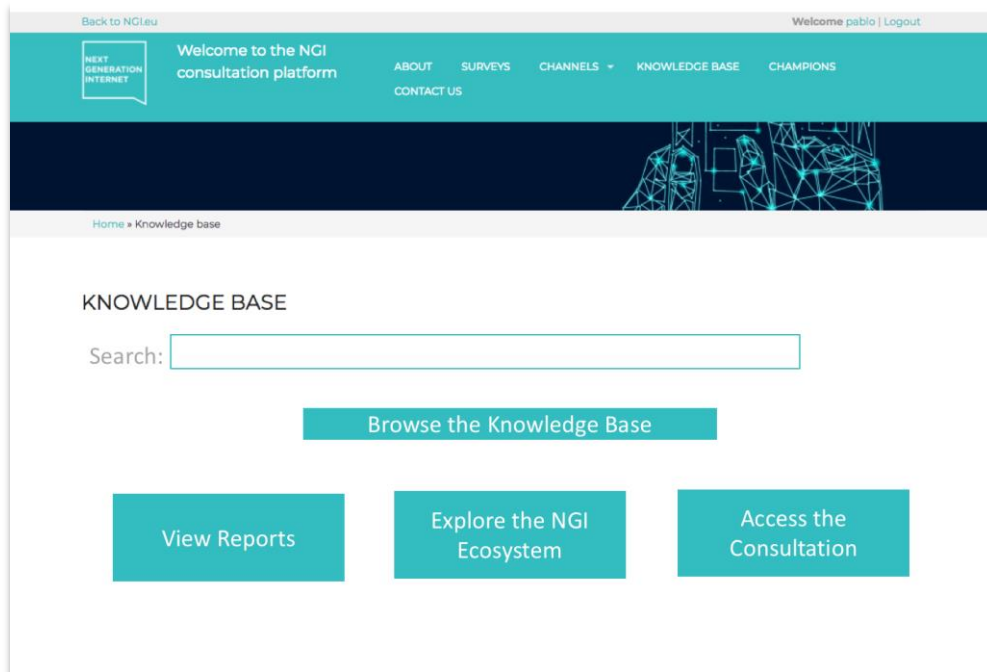


Figure 13: Final web interface to the Knowledge Base

Table 7 highlights the target functionalities provisionally envisioned for Version 4.0 of the Knowledge Base.

New feature		Functionalities
<b>Knowledge deployed</b>	<b>Model</b>	The model shown in section 3.2 above will be deployed in the Drupal instance
<b>Editor interface</b>		An editor interface allowing users to add values, link challenges to values and further populate the model will be developed.
<b>Integrated with legacy knowledge</b>		The legacy knowledge, including the surveys and discussion channel content can be linked with the NGI knowledge model.
<b>Knowledge Browser</b>		The populated knowledge model can be browsed allowing for the identification of gaps indicating where further research is required.
<b>UI for report generation</b>		Design and implement allowing the user to select preferences for customised report generation.
<b>Generation of report</b>		A customised report will be generated based on the user preferences.
<b>Export of report</b>		The generated report will be exported as html, csv, or pdf file.
<b>Final UI</b>		The final version of the web interface to the knowledge base will be developed.

Table 7: Knowledge Base - version 4.0

### 3.4.2 Summary Table

Table 8 contains a summary of the roadmap of the integrated Consultation Platform and Knowledge Base (CP / KB).

Version	Description of Features	Delivery Date
1.0	View into the Consultation Platform and search facility for the Consultation Platform.	November 2017
2.0	Knowledge Base advanced search functionality, knowledge base sidebar to assist the users in the gathering of knowledge of particular interest, KB Frequently Asked Questions (FAQ) section, spam checker and the possibility of using the CP / KB for collection of information from events, including webinars.	January 2018
3.0	Further CP / KB integration, NGI ecosystem knowledge extraction, including use of GIPO-related functionality.	March 2018
4.0	Working deployment of the knowledge model and customised reports	May 2018

Table 8: Summary of Consultation Plan / Knowledge Base Roadmap

## 4 Consultation Process

### 4.1 Consultation Platform Management

In order to keep the entries to the CP / KB focused on topics and reducing the potential risk of divergence, the NGI consultation platform has been designed with relevant “discussion channels” on a variety of NGI topics. The following section describes the management functionality in relation to these channels.

#### 4.1.1 Discussion Channels

##### 4.1.1.1 Registration

Registered users are allowed to participate in consultation process. To join in the platform, an anonymous user will need to fill a lightweight registration form.

The registration form<sup>7</sup> fields are the following:

- Username (required);
- E-mail address (required);
- Salutation + Name (required);
- Category (required): Advertising and Media; Aerospace; Agriculture; Automotive; Education; Energy; Finance; Health care; Legal; Manufacturing; Retail; Technology; Transportation.
- Country (required);
- Registering at NGI Newsletter (optional).

After registration, the user receives an email with an expiring URL to confirm the email address and set the password. After setting their password, the new user is being able to log in.

Editors can add a new user to the Platform. Admin only can delete users. Before cancellation phase, the Admin can choose between the following options:

- i. Disable the Account and Keep Its Content;
- ii. Disable the Account and Un-publish Its Content;
- iii. Delete the Account and Make Its Content belong to the Anonymous User;
- iv. Delete the Account and Its Content.

<sup>7</sup> <https://consultation.ngi.eu/user/register>



#### 4.1.1.2 Adding Channels

Editors have permissions to create new channels, from the backend. This will appear as the last Channel created.

Users are not given permission to create new Channels automatically but they can submit a request, which must be approved and created by an Editor. In the top of the Discussion Channels section, there is a button inviting Users to submit a request for new Channel. The Editors receive an email notification once a new request has been submitted. This gives the Editor an opportunity to make sure a new Channel is necessary, or whether the topic could fit more appropriately into an already existing Channel. Only registered users can submit a new Channel request.

#### 4.1.1.3 Adding Discussion

Browsing the Discussion section, a User can add a new discussion by clicking on the button in the right sidebar “+ Open new discussion”. A new page opens with a rich text editor, where he/she can enter the title and content of the discussion and, at the bottom, the related tags. The discussion is automatically saved into the channel in which the user was previously.

#### 4.1.1.4 Moderation

Content is moderated by the Editorial Team as an ongoing process. Moderation includes the removal of inappropriate content, approval of New Channel requests and the moving of content that has been wrongly categorised by the user in the incorrect channel to a more appropriate position.

### 4.1.2 Surveys

Surveys can be created by Editors via the CP / KB back-end. After a submission, a customizable e-mail is sent to editors and submitter with submitted values. User can access to enable filling and submission, and editing (these functionalities are optional) and to revoke / cancel. The number of submissions can be restricted by the Editor. Editor can access the survey results via the backend: they can also be exported into Excel or other spreadsheet applications creating an CSV file. The platform also provides some basic statistical reviews available for the Editor. Only registered Users can fill up the NGI CP / KB surveys.

## 5 Conclusions

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The first deliverable of WP2, entitled Deliverable D2.1 (“Consultation Platform, Knowledge Base and Digital Processes”), is an on-line software platform available at <https://consultation.ngi.eu/>. The type of the deliverable in the Description of Action (DoA) is classified as “Other”. The NGI Consultation Platform (CP) described herein has been fast-tracked well ahead of the initial completion date and was successfully launched to the NGI communities in Month 2 of the project, brought forward to coincide with ICT Proposers Day in Budapest, Hungary, held on 9-10th November, 2017.

The following elements will be part of the roadmap envisaged for the Consultation Platform:

- The **ultimate goal of the entire NGI Consultation process** is on the one hand to facilitate discussions among the NGI stakeholders, including production of quality content, and, on the other hand, to sustain divulgation of such content, including through post-processing and re-use of the content itself, which would lead to expansion of the interest of NGI research topics in Europe and abroad.
- **3 further releases of the CP** are planned and the release dates are described in Section 2.3. The key dates of the Consultation Platform / Knowledge Base (CP / KB) roadmap are summarised in Table 5.
- The platform is natively conceived as **easy-to-use and open to all stakeholders** involved in the NGI Consultation Process. Usage of the platform is encouraged also by means of user profiles (Expert, Trusted) that are rewarding multiple contributions and authoritativeness of them, as per the judgement of the Moderation team (Editorial Team).
- To facilitate value creation from the content developed on the CP by all users, specific **functionalities dedicated to management of the CP’s Knowledge Base** have been defined and planned on the development roadmap.