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# The CCS Observatory pilot and web application: a user guide

*Authors*

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# 1. Introduction

The aim of this paper and the associated website<sup>1</sup> is to describe the construct of the pilot observatory<sup>2</sup>, which has at its core the corpus from the research findings in the WP2 series of reports. By coding these interviews and locating the assets in a relational database we have created a unique resource, which not only acts as a repository of our findings, but also as a flexible lens through which we can further communicate and interrogate our findings. Importantly, our objective is not simply exploration; communication is a core idea. Thus, we have used the database to allow the configuration of the findings as seen through the lens of the GPN, that is highlighting popular typologies of networks, and the organisation of functions, domains (industries), and locations, as well as the nature of relationships linking these components.

The aim is that this will create the foundation for a prototypical structure and representation of the CCS that can be an extendable model; in the sense that the observatory can become a key part of a platform and network of users. The diversity of potential stakeholder for an observatory is wide, and we have sought to configure the pilot in such a way that it can be understood and accessed by a more casual view, as well as providing further resources for expert analysts.

The objective of this paper is to describe the design and potential of this pilot component of a future observatory, obviously the analysis of the underlying findings is provided elsewhere in the reporting, namely WP2; however, as this observatory pilot has as its aim the demonstration and illustration of the difference that a GPN perspective makes, we also so resonances in WP6 as information is foundational to policy making. Indeed, as the previous paper emphasised, the observatory we have in mind reflects not simply abstract data, but data translated into relevant information for the governance of the CCS, it is axiomatic that data is linked to purpose and use, and indeed users. That brings us to a final challenge that we hope that the pilot observatory illustrates how to communicate complex information for a variety of stakeholders; this is essential as if it is to be successful the observatory will need the cooperation and participation of a wide user group.

The paper is divided into four sections. The first section is a general introduction to the observatory and its aims and objectives. Part 2 describes the design structure of the observatory, and Part 3

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<sup>1</sup> [www.CCS-Observatory.eu](http://www.CCS-Observatory.eu)

<sup>2</sup> As anticipated and described methodologically in the annexes of WP4.3. The process of coding the interviews collected as an integral part of WP2 is detailed in the annex to this paper, and this describes the data sources that underpin it.



illustrates the query and interrogation structure and provides illustration of the output. Part 4 concludes with an articulation to an Observatory beyond this pilot.



# 1. The idea and scope

The CCS observatory is a demonstration project of the value of applying and different lens to the CCS. It allows us to view existing secondary information, and new primary information through this lens and identify the gaps and their significance. In this case it also enables the addition of a richer qualitative and organisational understanding of the CCS.

Critically, the design allows us to bring into focus the things that connect the CCS, matters of organisation and creation of new value(s), rather than what divides them (markets and audiences, and competing places, and industries/art forms). This perspective of the cultural and creative production system provides a powerful common focus for both policy makers and practitioners/industry to assess the strategic challenges and opportunities, and the long-term resilience and growth of the whole CCS. At the same time, it creates an opportunity for learning about particular industries and the possibilities of new collaborations across the production system.

The CCS observatory offers a resource that allows us to adopt the lens of the production network to view and understand the CCS. We contrast this with the normative perspective which is based on the location of single firms, and employment on site, and output of the firm. What is missing in this normative view is the flow of goods and services across a network of firms, moreover, an awareness of their transversal and transnational flows of value.

The observatory is divided into two major sections. The first is a communication tool, a way of articulating the CICERONE understanding of the CCS as compared to normative viewpoints. We use this to communicate at our project understandings and findings to different audiences (based on the level of detail). Our themes are 'concepts and definitions', 'production networks', 'policy' and 'data'; each theme we offer a primer of understanding, then the significant conclusions of the project, and third, an insight into more detailed analysis. In this sense this is another way of reporting out findings, but communicating and educating users into uses and insights of the CICERONE lens.

The second major section of the Observatory offers an addition insight by making accessible our interview corpus for further analysis. This is the product of interviews with more than 200 respondents in 10 industries that result in 645 interview extracts that are coded according to production network, production phase and issues (see diagram). This allows users to conduct qualitative cross-tabulations via the relational database and to generate unique insights into the characteristics of particular

production network types at different scales. Moreover, we enable the user to interrogate the interview corpus about a number of issues.

The CCS is inherently innovative and creative, this project seeks to create a flexible and extensible model that can grow with the CCS sector, in a sustainable manner. The CCS Observatory is a demonstration project that explores how the existing CCS data base could be reformed, repurposed, extended and made resilient via the creation of the CCS Observatory.

As the CICERONE project researched the ‘actually existing’ CCS. We began not from the Eurostat definitions of the industries and activities, but with and selection of the industries and activities that constitute the CCS from the ground up: mapping their organisational forms, and the flows of goods, services and people. This approach is characterised as following Global Production Network (GPN) approach, which goes beyond inputs and outputs and explores flows, as well as how that are directed and governed. In essence, this is the normative way we examine and analyse the car industry, or say, coffee production: we attend to the processes and technologies, their organisation, flows and spatial scope.

The history of CCS, and particularly arts and cultural activities, reflects a traditional focus on audiences and individual artists; accordingly, the data sources have followed. Viewing the CCS as ‘an industrial sector’ as we do, does not involve a value judgement, but simply expands our visibility, and the focus of the lens of analysis to reflect the complexity of reality.

A key insight from the CICERONE analysis was that the organisation of the CCS is important: it is more than firms and markets, artists, and audiences. Organisation affects the direction of power and control, and the flow of resources, added economic and cultural values. Different typologies of organisation were found that we argue are key to understanding effective public policy outcomes, and the role of cultural practitioners; moreover, that these vary by the position/phase in the cultural production cycle (creation, marking, distribution, exchange, and archiving), and which domain (art form, or industry).

We identified four main organisational typologies of the CCS. In summary we were able to show how local and trans-local flows, and added value could be described as having the production network phases controlled locally for creation, making and archiving; and trans-locally (other regions, nations, or external to EU) for distribution and exchange.

We have been able to innovate a new model for data collection and analysis for the whole CCS. The CICERONE model of the CCS with its flows, spatial and organisational perspectives was compared to that of the extant data sources for the CCS that are available via Eurostat based on national census data. Previously, we highlighted that the Eurostat data was even more partial than we suspected. We were able to highlight the many gaps, and from the perspective of a GPN network identify the strategic value of some gap above others. This identification of both the known knowns, and the known

unknowns is an important part of the project that will aid future data collection strategies. Our analysis has provided us with a 'proof of concept' for an CCS Observatory that would embrace and embellish existing sources, and provide a clear basis for new information collection, and a robust understanding of the CCS.

This new approach will enable in the future the sourcing and positioning of more extant data about the CCS from both the public and private sector, and it will help to align perspectives on future data collection strategies that add value to the collective understanding of the CCS. Amongst others, the CCS prototype envisages the potential future 'crowd-sourcing' for other extant and future information sources to augment the CCS Observatory.

Policy makers and those representing a wide variety of users including trade associations and other interest groups need to forge a powerful constituency (based a shared understanding of the sector) if they are to plan, strategize and formulate action. A collective constituency that is broad-based and incorporates all aspects of the production process (all parties) is going to be more effective operationalising pollical pressure, as well as governing its self-interest and future. The concept of the GPN applied to the CCS provides such a foundation. It does not deny difference (withing the CCS) but does not reduce the idea to separate domains. The cultural production network perspective allows us to recognise strategic opportunities and the realities of the existing policy making framework of the EU and nation states<sup>3</sup>.

Critically the CCS Observatory reveals new dimensions of the CCS to policy makers and politicians enabling the evaluation of the effectiveness and outcome of existing policies that may be based upon an inefficient understanding of the CCS. We have particularly emphasised the significance of organisational typologies in the identification and understanding of CCS activities, and the need to align policy actions to them. Sometimes this may confirm local action on local activities; at other it might suggest the need to act 'at a distance' on powerful gatekeepers located in different territories.

A robust and trusted understanding of the CCS, supported by appropriate data will help to enable the CCS policy, industry, and practitioners to express their voice, and attract appropriate support and understanding from the wider society. This is what the CCS Observatory provides. It is not simply a new 'aggregation' of data sources, but a revisioning of the types and data that are needed to understand the complex and valuable processes of CCS production.

Such a novel perspective cannot be implemented overnight, nor would a 'perfect' model ever be achievable without significant future investment: hence, the demonstration value of this pilot. The CICERONE data collection covered a significant number of industries and practices, but this could and should be expanded (and it will recalibrate the overall results). The CCS Observatory is the pilot for

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<sup>3</sup> It also reveals some of the strategic weaknesses of EU EG, and national policy agencies, that are not 'aligned to'/ reflect the organisational parameters of the actually-existing CCS.

this forward-looking platform. Our aim is to create a core understanding and data set for the CCS, one that will create a pragmatic guidance framework that can be extended overtime, based upon strategic choices of stakeholders.



## 2. The design

Our ‘wire-frame’ design, or meta-structure, of the observatory is structured on the GPN concept, and how it manifests in organisational structures and policy challenges. We have designed the CCS Observatory with different users in mind (see Table 1, page 15). It is a ‘one stop shop’ solution. We have three themes: Concepts and definitions, typology and organisation, and policy that run vertically through the observatory. Horizontally, we have four levels that equate to different users’ interest and degree of engagement in the findings of CICERONE, and the unique perspective of the CCS that we offer and its implications for policy and governance. We list them in reverse order for logical clarity; the level order relates to user engagement: starting with the general and moving to the particular. So overall the subject matter can be interrogated via 4 progressive levels of expertise, or by 3 different perspectives: this creates a twelve-part structure to the web site. It is expected that users will normally select a level and explore themes; then select themes through different levels.

### **Level 4: the data matrix of (reconfigured quantitative) and new qualitative findings**

Essentially, the CCS observatory is a repository of all of our research findings from the CICERONE project, that is a rich description of the production networks of a selected range of the CCS in Europe. This level of the web site/observatory will only be accessible to registered users. We offer a means of interrogation of this research as a novel lens that enables us to view the CCS from a unique new perspective one where flows and networks, rather than inputs and outputs are visible.

The Observatory design allows a limited set of ‘queries’ that will allow the reporting on common organisational forms, their illustration with rich contextual interview data that will illustrate the type of strategic SWOT challenges. We enable generation of ‘query reports’ based on organisational type, and production function/phase variables cross referenced by scale and location. Necessarily currently reports are limited to the empirical research that we have done; however, the CCS Observatory is structured such that new industry studies can be added in an extensible model.

This aspect of the CCS Observatory will be of limited interest to an academic and research community. However, of much wider implication is the ‘rebuilding’ of our perception and understanding the CCS that we have been able to enact via the construction of the CCS Observatory.

### **Level 3: Analytics**

This is where we (re) present our findings based on the CICERONE project and analyse the existing CCS data, and the project collected data, to illustrate the phases of the cultural production system, the



spatial footprint and embeddedness, and power and control. So, this moves us beyond ‘how many authors are there’, type of question to ‘where is the value added in publishing (phase, and location)’, and ‘how in/dependent and/or resilient are local /national producers’. At this level we present the typologies most common in particular industries, and how it affects the distribution of power and control. Finally, we contrast the extant policy framework and demonstrate its (mis)matches with the actually existing mechanisms and typologies of the CCS. This level will facilitate a compare and contrast function of ‘viewing’ the CCS through the lens of the NACE codes, or of the production function/phase.

## Level 2: Conclusions

We provide our findings based upon the raw data (level 4), and the analytics (level 3) that demonstrates the contrast between the perspectives offered by the existing data sources and concepts, and the ones that are developed in the CICERONE project. This shows in practice the ‘redrawing of the map’ of the CCS, and an demonstration of the value of the application of the CICERONE perspective to the CCS and how it could assist policy makers, industry and wider society to engage in a more productive debate about the CCS beyond the current one.

## Level 1: What is the CCS

This level conveys the key concepts and ideas of the CICERONE project and how they shape a new perspective as characterised by the CCS Observatory. We challenge and illustrate concepts and definitions to overcome the limitations of sectional interest and history. We foreground the lack of organisational perspective in the current perceptions of the CCS, and show how the CCS Observatory could be a tool to break open moribund binary policy debates, spatial limitations for policy, and the hierarchical and spatial dimensions of control that are vital to understand for policy and governance interventions.

**Table 1. Map of the CCS Observatory**

	Entry point 1	Entry point 2	Entry point 3
	Concepts & definitions	Network typology and organisations	Policy
	↓	↓	↓
Level 1: introduction	Current CCS understanding: industry-based	Current understanding: CCS-actor focused	Current policy support: split horizontally & vertically
	Our CCS understanding: network-based, all linked together cross-industry	Our understanding: CCS actors embedded in collaborative interactions spanning beyond creation	Our understanding of the organisation of CCS support: multilevel framework

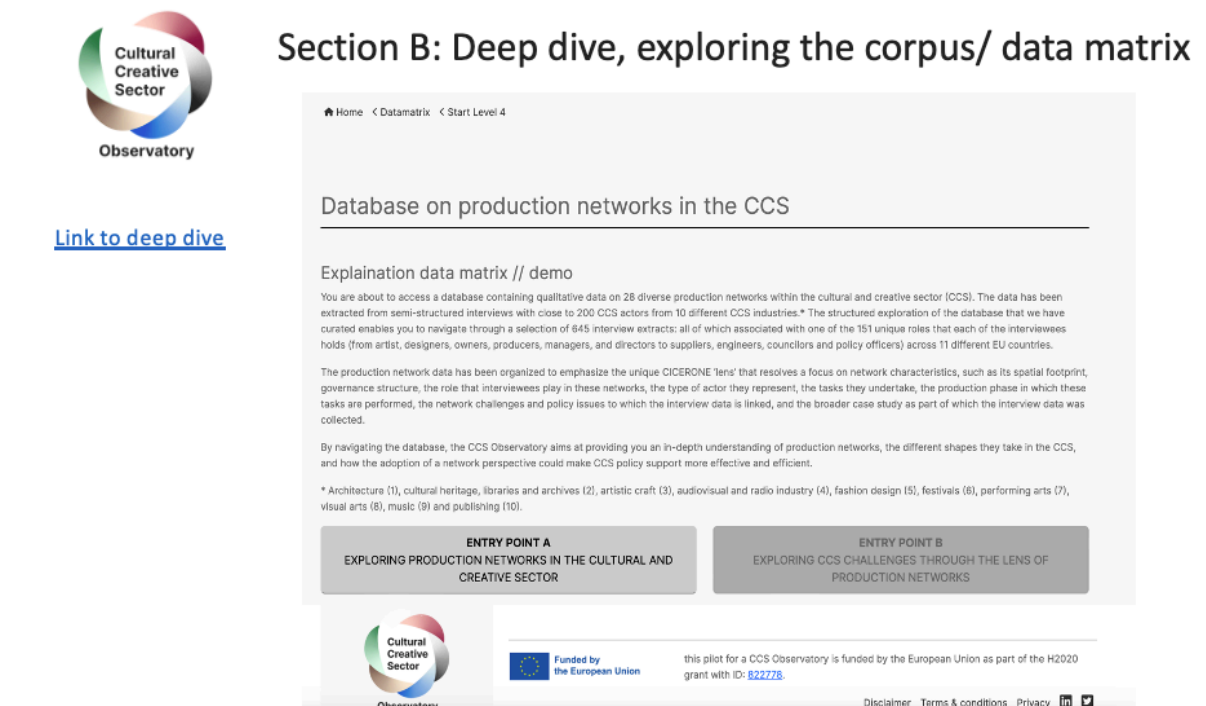
	↓	↓	↓
<b>Level 2: conclusions</b>	Key difference(s) between these two understandings (not industries, but network types across industries)	Key difference between these two understandings (more sensitive to ...)	Key difference between these two policy support structures (...)
	What are the implications of the adoption of our understanding? (CCS as such do not exist?)	What are the implications of the adoption of our understanding (power as key policy variable?)	What's needed to get to our proposed structure? Institutional change + new data
	↓	↓	↓
<b>Level 3: analytics</b>	Power	Network types (4)	How trade policy falls short
	Production phases	Case-based illustrations + visuals	How cultural policy falls short
	Spatial footprint	Key dynamics	
	Embeddedness	Showcasing lack of data	New policy support: decision tree
	(And other key concepts in our approach)	A new EU map of the CCS (network style)	
<b>Level 4: data matrix</b>	Dashboard with three key queries: Phase, typology, Issues (based on coding labels) (organising data in a 5 * 4 * 7 call matrix)		
	Results page: summary of query + linked quotations (each with metadata and hyperlinks to relevant WP2 report and vignettes)		



# 3. The query / interrogation structure

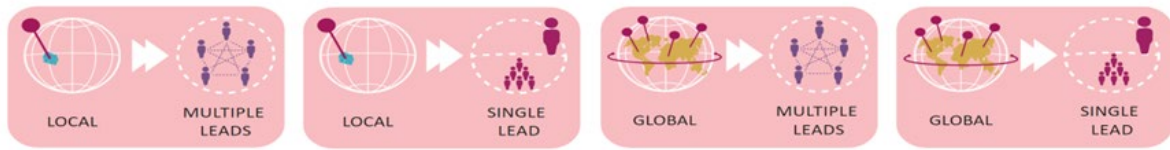
The exploratory and analytical engine of the pilot observatory web site is built upon the relational data-based containing extensive quotations from our interviews across the production network identified in WP2 and categorised on the basis of the typologies of GPN developed in WP3. This application allows a further exploratory analysis of both networks and their characteristics, and experience of industry actors. To simplify the process we have divided the exploratory pathways into two. The following screen shot (see Image 1) shows the entry and selection process.

Image 1. Screenshot of the CCS Observatory pilot's entry and selection process



The first entry point is organised to reveal the nature of production networks. It has a two part structure, based around a choice of the four dominant production network types found in our research on the CCS. These can be broken down into a 2 x 2 matrix based on spatial foot print (local /global) and governance type (single lead/ multiple lead); this is represented by the icons as illustrated in Image 2 (see next page).

**Image 2. Visualisation of the four dominant production network types**



What follows is an example query to show what the output looks like for the local/single lead option.

**Image 3. Screenshot of entry point A**

Spatial distribution

Governance structure

» SHOW RESULTS

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Hierarchically organised regional/local production network

Descriptive results

You have selected a production network with a regional spatial footprint and a hierarchical governance structure with one actor in the lead:

This type of production network can be found across all industries of the cultural and creative sector, producing products and services typically catered to niche markets.

In comparison to horizontally organised networks, hierarchically organised production networks have one actor standing out in terms of its resources. It is likely to possess a higher level of human, financial and/or social capital, allowing it to shape and model the production network. In local/regional networks, according to our database, lead actors are involved in the performing of production tasks across many production phases.

**Co-Founder and owner**

Organisation for tourism

Executive Director Film

**Head of Communication**

**Critic**

Curator Director of unit

**Project Manager**

Community outreach

**Games festival organiser**

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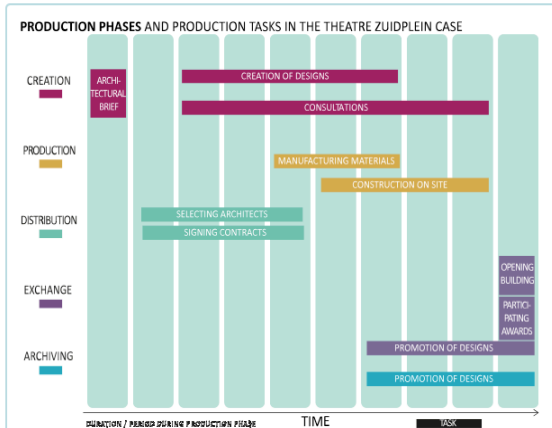
Based upon our database, other key characteristics for this type of production networks are:

- Regionally clustered network actors
- Intrinsic motivation important across the whole network
- One lead actor exerting its power across multiple production phases
- Small-scale production

## Illustration

An example of a hierarchically organised local/regional production network is the production of an acoustic wall as part of Theatre Zuidplein in an urban renewal area in Rotterdam, The Netherlands. This wall, designed by the young and upcoming Rotterdam based architectural practice Studio RAP, consists of 6,000 unique components, each of which are different in size and placed within the wall with different angle rotations. The acoustic wall is the result of completely digital workflow, an highly specialised approach allowing Studio RAP to empower its position within the network and play a central role in many of the production phases, thereby counteracting the decades-long erosion process which has been narrowing down the role of architects to just (a part) of the creation phase.

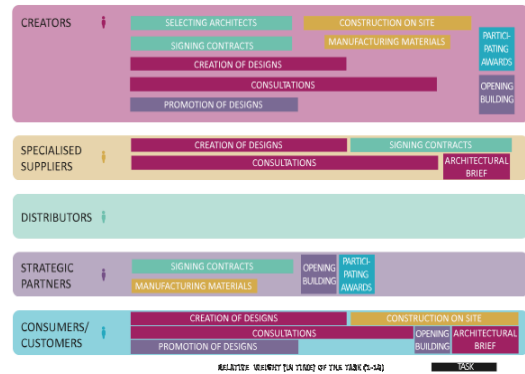
The production network of this architectural project was mapped on the basis of interviews with actors who played different roles in the production process. These included representatives of the clients (a public private partnership between the municipality of Rotterdam and a construction company), Theatre Zuidplein, Studio RAP, consultancies on acoustics, and the manufacturer.



### Production tasks and phases

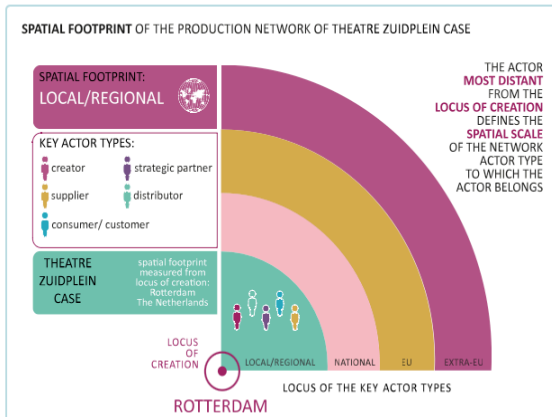
Most of the production is relatively equally distributed over the production phases, which overlap over the course of the project.

### PRODUCTION TASKS AND KEY ACTOR TYPES IN THEATRE ZUIDPLEIN CASE



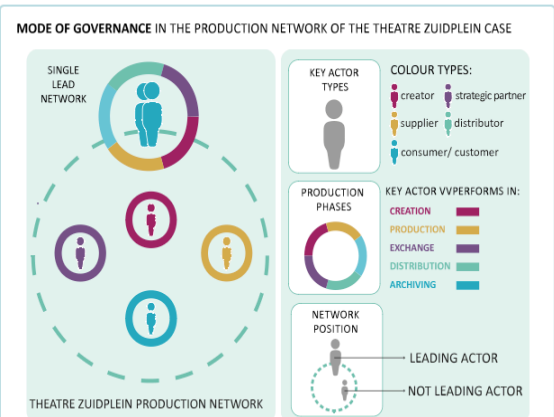
### Production tasks and actors

In line with the highly specialised digital workflow, in which the role of Studio RAP is indispensable, many of the tasks are being performed by the creator, limiting its scope of activities not only to the creation phase, but to production, distribution, exchange and archiving too.



### Production actors and locations

When measured against the network's primary hub of creation, the city of Rotterdam, the Netherlands, the various actors all originate from the same region, making the network strongly localized and boosting local entrepreneurship and generating employment.



### Dynamics between production actors

The governance of the network is led by a public-private partnership between the municipality and the construction company, which derives its power from the client.

What makes this production network case interesting is that:

- Studio RAP's specific knowledge and skill set demanded control in the stages of creation and production and distribution and exchange.
- Innovation and creativity was given maximum space, providing Studio RAP with a high degree of autonomy to carry out its innovative digital techniques, as acoustic values were prioritized over risk reduction and cost efficiency.
- Studio RAP used the acoustic wall to improve its project portfolio and showcase their expertise and skill, but due to being a relatively small and young practice, the studio nevertheless finds itself restricted because of the European Union's tendering rules, which prevent them from participating in large public assignments due to limited experience. (For this project, Studio RAP was awarded the assignment without having to adhere to EU procurement legislation, as the initial tender failed).
- Studio RAP's innovative approach for enforcing more responsibilities, control, and turnover by building up expertise - in their specific case, advanced digital skills - could serve as an example for other practices. Yet, developing a new skill set requires significant investments, and many firms lack the financial capacity to balance their present workload while investing in tools and training capacity.
- The lead actor has been emphasizing the favoring of a collaboration with fellow "Rotterdammers" to support local entrepreneurship and generate employment, but also to reinforce Rotterdams identity of being a cluster for trend-setting architectural firms and progressive architecture, and a place of production for high-quality and innovative architecture.
- Enlightened commissioning turned out to be very important. The public-private partnership between the municipality and the construction company was guided by creating something "beautiful", something which the city of Rotterdam could be proud of and which was not just focused on costs. Such a mindset is (partly) shaped by tastemakers in the exchange phase who contribute to create an environment that is conducive to aesthetic issues and, in turn, by a culture among (local) policymakers which is open to such an attitude.

Explorations

When dealing with local and horizontally organised production networks, policy needs to be sensitive to its particular network features and target all of its phases in order to be effective.

Key examples of collective actions that could be explored for this particular type of production networks are:

- 1. Skills and capacity building
- 2. Ecosystem strengthening
- 4. Improving basic labour conditions
- 5. Improving funding support
- 6. Export upscaling

As can be appreciated, this enables a considerable amount of detail based on out network interviews that provides insight into both the network configurations, opportunities and challenges faced in the CCS production system. The options listed above show the range of policy issues that are raised by this network type, and relates back findings from WP6 on policy responses

The second entry point articulates the network type in a different direction, directly to challenges. We have a summary compressed list of challenges faced by CCS networks based on Labour and Skills, Governance, Embedding and Impact. Each of these, when selected, generates a selection of responses from our interviews (see Image 4 - next page - on Labour and Skills and a local/horizontal network type).

Image 4. Screenshot of entry point B

## Entry point B : Exploring CCS challenges through the lens of production networks

### Issue / Challenges

labour and skills

### Network type

local/regional & horizontal

» SHOW RESULTS

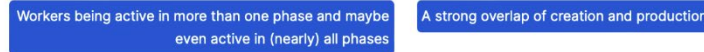
## Labour and skills issues in local/regional and horizontally structured production networks

### Description

Challenges associated with labour in locally clustered and horizontally structured production networks, range from:



In contrast to global production networks, these concerns cannot be articulated differently at different points in the network, due to:



### Illustration

Within our qualitative database, the type of actors that raise labour and skills issues are:



Qualitative data exemplifying labour and skills issues:

Creation Production Distribution Exchange Archiving

"The [final] customer is, to some extent, the true designer of the boat: he/she is the person who decides how the boat should be, even if it is to us the task of giving grace and logical sense to his/her desires."

(Architect and interior design)

Location

University of Bari Aldo Moro

Industry

Crafts



## Explorations

For a more in-depth exploration of the issue of labour and skills across cultural and creative production networks, please select one of two cases below, each of which representing a regionally clustered and horizontally structured production network:

### 1. Craftsmanship in the yachting industry

### 2. Debuting artist in the European music industry

The independent music industry contains myriads of workers, firms, and creatives that are defined by not being under the umbrella of the three major record labels. Its music products are typically tied to an independent record label, either by the record label owning the rights to the master recording or as a node for dissemination. Some artists in the independent music industry are not even signed by a label; they produce their music in a DIY structure. However, being connected to a record label is often part of an artist's career progression. In this case, we focus on a debuting artist and how this artist builds a musical career in the commercial independent record label market.

The case concerns a Stockholm-based singer-songwriter producing music in the wider folk pop/Americana genre. She is signed to Sweden's largest independent record label, which has offices both in Sweden and in the neighboring Nordics. The music artist released her debut single in 2019, an additional single together with a globally known Swedish artist in 2020, and her first album in February 2022.

The case exemplifies the essential role of trust building as a skill, and how these skills are instrumental for securing sufficient income and building a career in music.

[Continue reading](#)

The important illumination that is generated by this qualitative cross tabulation interrogation of our data is a deep insight into not simply the network shape and connection, but the nature of the relationships and the power balances that they reveal and are illustrated by interview quotations.

It is important that this tool is not interpreted as a conventional sample and case study. The findings are not based on a statistically representative population and thus do not, and cannot, offer definitive quantitative insights. We focus on providing insights into important processes and relationships. We have selected our industries carefully, and we have mapped extensive production networks, so we are confident in reporting the shape and character of production networks. These insights should be seen as sensitising tools that act as a strategic foundation for further information collection, and/or offer pre-awareness of the likely production network characteristics and hence what type of policy response would be likely to be more effective (and at which scale).



## 4. Beyond the pilot: linking to a potential CCS Observatory

The idea of an observatory is both (conventional) an aggregation of sources, and (innovative) a new lens on the CCS. We readily acknowledge that there have been many cultural observatories that have been established across Europe in that last 25 years; however, sustainability has been a problem for most. In part this has been due to the limited or specialist focus of an observatory, or its link to a limited funding stream.

A notable exception is the European Audio-Visual Observatory that has a particular focus and a sustainable business model; what we lack is a similar vehicle for the whole CCS. The EU AVO shows some very useful innovative ways forward in the way that it draws in proprietary information to supplement the existing 'industry' information (which, the film and television industries are, due to a quirk of history, quite well represented in industrial taxonomies, at least in the analogue age). A CCS observatory would need to stand beside the European Audio Visual Observatory and Compendium, and complement and extend its insights. It would also have to develop relationships with the CCS sector to access proprietary information flows on digital and IP flows, as well as audience insights (from both the public and private sectors). However, the challenge is to create a platform that the sector – NGOs and trade associations, and industries, as well as the policy community and civil society respect. A CCS observatory should focus not only on creating an integrated platform for existing resources and encouragement and support for significant stakeholder engagement with users (particularly sector representatives and user groups, labour representation, and local communities), however, it is critical that at core the concept of the CCS – namely a relational one – if fit for purpose. This pilot demonstration is a prototype of such an application.

What the CCS pilot project shows is the first step to re-configuring our understanding of the CCS, and the need to create a common platform for this information. Critically, it will need a research as well as administrative/archive function. As has been suggested with the pilot, and early stage of identifying a comprehensive review of the weakness of the current information systems (see WP 4.4), and the potential for short and long term interventions is required. This will focus on the identification of the known unknowns, and the development of a strategy to identify potential sources or methods, and to evaluate the cost effectiveness and strategic urgency of choices. An obvious incremental project would be the expansion of case studies of production networks from the 28 already established, to reflect a coverable or the whole CCS industries, and the whole territory of the EU (we note that due

to the CICERONE project membership limitations we did not have representations of networks in France and Germany.

As discussed elsewhere in the WP4 reports, on one hand, the establishment of a platform such as this would be challenging due to the fragmentation of the CCS, but on the other hand, a project such as this might be precisely the mobilising activity to engage in this capacity building exercise which is so obviously needed. Another lack of capability in our existing framework for information and insight on the CCS concerns the ability to respond to future scenarios and threats. There exist, in other sectors, such as Auto industry, Construction industry, Health, and indeed Tourism observatories that not only act as archives and communications hubs for particular industries but also play an important role in articulating industry internal demands (which can be diverse), and to be able to play an effective role in responding to EU agendas: in short, a foresight role. At present, such responses tend to be ad hoc, and miss the perspective of the umbrella of the CCS, let alone the dynamics of the industry. There is considerable potential for a common stakeholder platform that was able to commission foresight enquiries, as well as represent a variety of CCS viewpoints in a coherent way to external bodies, to advise on data needs.

# Annex 1

This annex includes the code book and the coding guide that the CICERONE team used for generating the keys for interrogation and query search to effectively select appropriate quotations from the relational database.



## **Preparing WP2 qualitative data for database ingestion WP4 instruction manual**

[version 1: trial phase]

Internal document – [21/9/22]

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### **Introduction**

This technical document offers instructions for preparing qualitative data, gathered through WP2 fieldwork, according to a format and metadata schema that is appropriate for an underlying repository and database, as part of the proposed Cultural Economy Observatory (CEO) - D4.1.

CEO acts as a large and public window of display for the results of the CICERONE project. Constructing such a window goes beyond traditional dissemination tools; it is considered an appropriate tool to match with the project's overall ambition and potential to innovate. CICERONE looks at the cultural and creative industries from a Global Production Network (GPN) perspective and thus goes beyond

the often-used cluster and value-chain approaches to study these industries, including the reliance on standard industrial and occupational classifications. In reports D4.2 and D4.3, we argue that this GPN approach to the Cultural and Creative Sector (CCS) allows us to challenge both extant statistical data-gathering and policymaking for CCS. In this way, we can indicate the need for particular data that might support better policy making in a European CCS GPN system; this will be taken up in WP5, via stakeholders and policy.

This instruction manual extends Annex 2 of report D4.3, providing clear practical instructions for the preparation of WP2 qualitative data. As a draft version, it is intended as a trial exercise for a limited number of project case studies, with queries and amendments invited. A revised final version will subsequently be circulated for all case studies.

As such, while this version of the manual offers a step-by-step guide to filling in the spreadsheet, those participating in the trial are asked to perform an extra step and ask questions of the metadata schema itself. Please view this as a collaborative exercise! For this reason, there follows a short guide to principles of metadata for this project. The spreadsheet is editable so that you are able to add rows/categories or suggest alternative ways of organising the metadata schema.

### **Observatory principles**

This exercise aims to transform textual data into discrete digital objects, which exist as part of a defined system of organisation that can be read by machines. The digital objects themselves are interview extracts: i.e. blocks of plain text. These are then associated with a set of codes, categories and classifications that describe those blocks, comprising a metadata schema.

In this way, we can think of this process as “packaging” data: multiple extracts are placed inside the box marked “interview X”; multiple interview boxes inside the box marked “case study Y”, inside the bigger box marked “industry Z”; each box is then labelled with its own identifying information, so that we can easily locate its contents. Metadata is “data about data” and this labelling process is referred to as tagging.

However, the “packaging” image is misleading: instead, the idea is that data can be tagged according to multiple categories, organised in a network rather than a linear hierarchy. It can therefore belong to multiple “boxes” at once – including, potentially, boxes that have not been thought of yet. In this manner, data can be abstracted from its initial context and represented, or re-described, according to a different form of conceptual organisation. This is, of course, a central aim of the CICERONE project: to reconceptualise the CCS according to (modified) GPN principles.

Our metadata schema will aim to describe the particular dataset generated through the CICERONE project in enough detail to be able to populate parts of a new data matrix, hosted on the CEO, and to be searchable (in theory at least). It should also present a template for future (as yet unknown)

datasets, which might be ingested into the system. It should therefore provide a minimum level of stability while remaining open and dynamic enough to be applied to datasets not generated through CICERONE.

### **FAIR data principles**

When constructing any metadata schema, in order to ensure data is machine-readable, it is best practice to do so in accordance with FAIR principles.<sup>4</sup> This process begins when any community of practice (i.e. the CICERONE project team) needs to consider what metadata frameworks it needs, given the particular domain of interest (i.e. a GPN-oriented analysis of the CCS for policy purposes).

The community should do so with regard to: (i) its own immediate needs; (ii) the broader needs of the wider community of research and potential data users; and (iii) the technical needs of wider structures of data and metadata of which it will form part. The eventual schema will result from a process of negotiating between these needs.

In accordance with these guiding principles, FAIR data should therefore be:

F: Findable – enabling discovery and readability by both humans and automated processes

A: Accessible – enabling transparency over how to access underlying data

I: Interoperable – enabling integration with other datasets

R: Reusable – enabling reuse, replication or recombination in other settings

What this implies is that those completing this trial phase should constantly query the schema/spreadsheet organisation from the perspective of future research, policy and stakeholder users, and from the technical perspective of creating a system that integrates with other pre-existing systems, as well as the perspective of easing the data entry process, and that of the project's methodological foundations.

### **Types of metadata**

The particular needs of this project are largely informed by the methodological and fieldwork guidelines produced through WP2: case selection guidelines, interview categorisation and naming conventions, and especially the analytic coding scheme. We will attempt to transform these into a metadata schema, in line with the above FAIR principles. It is useful to bear in mind three different categories of metadata, in order to think about how we can tag the interview data most fully, cleanly and efficiently, avoiding extra work.

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<sup>4</sup> Wilkinson, M.D. et al. 2016. The FAIR Guiding Principles for scientific data management and stewardship. *Scientific Data* 3 <https://www.nature.com/articles/sdata201618>. See also: "How to Go <https://www.go-fair.org/fair-principles/>

### Descriptive metadata

Descriptive metadata describes the content of the data itself. In our case: what is the interview extract “about”?; what does this text contain that might be of interest to a particular research or policy user? We answer these questions in line with project principles. Hence, here we turn to our analytic coding scheme and information about the interviewee: their firm, role, location or place within the network. Refer to the WP2 fieldwork guidelines and codebook for details. User needs identified through WP5 and WP6 might also inform this category of metadata. The second and third categories of metadata seek to describe how data should be organised as a set of inter-related digital objects.

### Structural metadata

Structural metadata describes how digital objects are organised and related to one another within a collection or classification hierarchy. This enables digital objects to be identified as part of categories and subcategories, belonging within multiple ‘layers’ of organisation (e.g. extract > interview > case > industry / typology > project > funding body...), so that descriptive and administrative data can be applied at different levels (e.g. some information apply to specific extracts; other information applies to particular kinds of extract; or to the entire project). It also enables data to be reorganised in new combinations (e.g. as examples of a GPN typology or location), without being limited to its initial structure (e.g. as part of an ‘industry’).

### Administrative metadata

Administrative metadata describes how the object was created and contains unique persistent identifiers (typically strings of digits, like a barcode) that enable specific objects to be located and tracked. It should therefore support interoperability by using standard identifiers and classifications that are in wider use (beyond this specific project). A full set of administrative metadata should enable us to identify rights and responsibilities, allowing, for example, extracts to be associated with EU funding data, or to be traced back to particular interviewers or institutions.

## **Completing the spreadsheet**

In principle, the process is very simple. Our primary source for case study data is the WP2 report. Quotations are removed from section three of each report and inserted into the pre-formatted spreadsheet template provided, one for each case. The various cells on each worksheet are then filled with information that will make up our metadata.

A single spreadsheet captures all extracts from the WP2 report extracts associated with each case. In other words, each WP2 report will generate between two and five spreadsheets (depending on the number of case studies).

Each spreadsheet comprises two worksheets: one labelled “case”; the second labelled “extracts”. These two worksheets in fact capture three structural “levels” of the metadata schema, with “extract”



as the lowest, followed by “interview” and “case” as the highest level. There is no need to complete “higher” levels (industry, project, etc); the WP4 team will deal with broader structural organisation.

Remember: The purpose of this trial phase is to ensure the spreadsheet template works as intended: that it captures a “good enough” metadata schema for observatory purposes; in line with methodological principles and user needs; and that the instructions for filling it in are clear. The list of interview extracts does not need to be exhaustive – quotations from reports should be enough – but should be useful: do consider whether it is worth returning to original transcripts.

### Tab 1: “Case”

This first worksheet comprises two parts: case-level metadata; and interview-level metadata. Complete this first, before adding the extracts. At the top are metadata relating to the case study: i.e. information that is relevant at case-level and so applies to all interviewees and interview extracts.

#### *Administrative metadata*

<b>Case ID</b>	4-digit code, in the format “XY00”, where “XY” refers to industry code (see table below*) and “00” refers to case number (positioning within the report) e.g. “PU02”
<b>Case name</b>	Short generic description of case e.g. “Scientific Publishing”, “High-end fashion brand”
<b>Author</b>	Name of person completing the spreadsheet
<b>Institution</b>	Institution of person completing the spreadsheet

#### *Structural metadata:*

<b>Industry</b>	Industry name (see table below**)
<b>Typology</b>	TBD [a code relevant to the particular network typology]

*2-digit code	**Industry Name
AR	Architecture
CH	Archives and Cultural Heritage
CR	Crafts
AU	Audio-visual and Video Games
DE	Design
FE	Festivals, Performing and Visual Arts
MU	Music
PU	Publishing

Below this we find metadata relating to the interviews.

#### *Structural metadata*

**Interview ID** 2-digit number: 00, 01, etc \*\*\*<sup>5</sup>

#### *Administrative metadata*

**Interview date** Format: DDMMYYYY

**Interviewer name** Name of the person conducting the interview

**Interviewer ORCID** See: <https://orcid.org/>

**Institution** Your institution Descriptive metadata

**Interviewee location** Where is the interviewee normally based? \*\*\*\*

**GPN Phase** Which phase does the interviewee belong to? Creation, Production, Distribution, Exchange, Archive –

**Actor Taxonomy** Which task/function category does the interviewee belong to? I.e., Creator; Supplier (specialised); Strategic partner (private sector); Strategic partner (civil society); Strategic partner (public sector multi-level); Distributor; Consumer; Customer; Lead actor –

\*\*\* N.B. This is slightly different from the Interview ID as set by WP2 fieldwork guidelines, which is structured as follows:

“Case ID-Phase-Interview # within phase-Location-Interview # within case-DDMMYY” (e.g. PU02-P-01-UK-04-240621) –

\*\*\*\* N.B. Use lowest possible level of detail, using NUTS statistical regions levels 0 (country)- 3 (province). See Eurostat document, pp.16-170 <sup>6</sup> –

#### Tab 2: “Extracts”

Start at the beginning of the case study section in the report and work your way down. Each interview extract is copied and pasted into a single cell under a new column in the spreadsheet, along the row labelled “Extract”. Please paste into the formula bar to ensure plain text with no special formatting. Once entered into that first row, extracts need to be “tagged” and “cleaned”.

**Tagging** Completing the requisite metadata categories.

**Cleaning** Checking for legibility and usability. Structural metadata

**Interview ID** As above (Tab 1) – this associates the extract with all of the metadata from the “interview” level on the “case and interviews” worksheet.

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<sup>5</sup> The Interview ID can then be automatically coupled to the Case ID: “PU02-01; PU02-02...” etc.

<sup>6</sup> N.B. Statistical data were captured from Eurostat at NUTS-0 (country) level. It should be possible in most cases, but perhaps not all, to go below this with regard to interviewees and the tasks or roles they represent.

### *Administrative metadata*

**Extract ID** 2-digit numerical code [“00”, “01”, “02”, etc] for each extract.

### *Descriptive metadata*

At extract level, descriptive metadata is largely derived from the analytic coding scheme. We can use the report headings to identify top-level codes (see below). Second- and third-level codes will likely require some further interpretation – either making use of your own pre-existing coding scheme from the analysis that informed the report-writing; or will simply need to read and re-interpret the extract. See the CICERONE codebook for details. Extracts can be coded/tagged multiple times.

<b>Phase</b>	Choose from Creation, Production, Distribution, Exchange, Archiving
<b>Primary Code 1</b>	Choose one of the seven “top-level” categories: Network Configuration – From report sections “Actors”, “Phases”, “Network Type” Embeddedness – Sections “Locations”, “Socio-cultural embeddedness” Governance – Section “Governance of the Network”
<b>Labour</b>	Likely to come from sections “Governance of the Network” or “Impacts: Social”
<b>Dynamics</b>	Section “Dynamics: Changes over time” Impact and Development – Section “Impact”
<b>Policy</b>	Section “Policy”
<b>Secondary Code 1</b>	Choose one of the second-level codes.
<b>Tertiary Code 1</b>	Choose one of the third-level codes.
<b>Primary Code 2</b>	If relevant, choose a second top-level code; and second- and third-level codes

### **Final notes: Ensuring data is as clean and complete as possible**

Imagine an individual quotation is returned in isolation as the result of a search query. Ask: what do I need to know to understand this extract?

Is it possible to derive all the useful contextual information as user would need – about the interviewee, their work, industry and location – from the associated descriptive, administrative and structural metadata, at extract, interview and case levels?

Does the text itself contain ambiguities, such as pronouns (he, she, it, that, there), references to information elsewhere (“I agree with him”; “because of what’s happened recently”), acronyms or jargon that need to be explained?

If extra information is necessary, consider whether: the extract needs to be edited – using [square brackets] – to show referents; a further metadata category could be useful; or the extract can simply be excluded without incident.

Some general aspects to bear in mind for the trial phase:

The final version of this template will likely be locked. During the trial phase, it will be open and editable: you are able to explore and find alternative ways of organising the metadata template, if you so wish.

The spreadsheets should be “clean”, with as little room as possible for human error during input. Options should therefore be restricted to pre-set choices. The need to enter free text should be avoided wherever possible.

Please avoid special formatting – for this reason, it is good practice to enter text into the formula bar (labelled “fx” at the top), rather than directly into the cell.

All data for use in the observatory should be anonymised. Consider whether there are any identifying features (beyond the interviewee metadata) that might de-anonymise.

In the aggregate (i.e. across all case studies), there should be enough qualitative data to populate the primary coding categories. This suggests that each case should contain at least one interview extract that fits each primary code category. Are any key areas missing from your case/report? If so this might require a return to raw interview transcripts or unused material (including new translation).