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Collaborative Strategies in Efforts to Increase the Innovation Index in Cimahi City Government

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ABSTRACT

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The regional innovation index (IID) is a collection of regional innovations that spur innovation practice. IID encourages local governments to make innovative policies for the welfare of their people. Involvement between actors is needed in the implementation of regional innovations. Collaboration can overcome organizational in implementing innovation. The assessment of the regional innovation index among regional apparatus is still not optimal. The problem faced is the decline in the value of the regional innovation index in 2020. The purpose of this research is to analyze the collaboration between the regional innovation index. This research uses descriptive qualitative method. The data were obtained through interviews, observations and document studies. Data analysis techniques were carried out through data reduction, data presentation, and conclusions. Test the validity of the data using the credibility test, transferability test, dependability test, and confirmability test. The researchers used the collaborative governance model from Ansell and Gash (2007). Formulate research strategies using SWOT analysis techniques. The results of the study indicate that collaboration is still not optimal. To overcome this problem, the researcher proposes strategies including technical training, socialization of regional innovation, collaboration with LAN RI,, strengthening regional innovation policy regulations, and building cooperation Regional Work Units.

INTRODUCTION

Callenge of the change through bureaucratic reform requires innovative breakthroughs in government agencies. Bureaucratic reform puts forward a competitives system in achieving good governance. Of course, a series of innovations are needed to achieve this goal. Innovation in the public sector is believed to be away to improve public services and competitiveness. Experts argue that there are supporting factors that the public sector needs to innovate. First, there is a public demand for quality public services. Second, the government has the desire to solve various public problems but the conditions faced by the government have not been able to reach various public problems. Third, there are public problems that are complex and difficult to solve alone (Wahyudi et al, 2020). Therefore, the government with all its limitations is expected to present innovation as a solution in overcoming the various problems faced by the public.

The concept of public sector innovation is not something new for governance in Indonesia. The practice of innovating in the public sector was carried out before 2013 by the Regional Government. The regional autonomy policy in directly electing regional heads gave rise to many innovative programs. The need for innovation is a key performance indicator for Regional





Governments. So the government with all the limitations that exist, Regional Governments are expected to be able to present innovation as a solution to public problems. Public sector innovation development is believed to be able to increase regional capacity in accordance with its potential.

Global Innovation Index (GII) released by the World Intellectual Property Organization (WIPO) placed Indonesia in rank 87 out of 132 other ASEAN countries (GII, 2021). The measurement of the global innovation index is based on the success of countries around the world in implementing innovation. This index looks at the performance of the worldwide innovation ecosystem which is released every year. Based on the global innovation index data from 2017-2021 that Singapore occupies ranked 8th followed by Japan 13th, Malaysia-36th, Thailand-43th, Vietnam-44th, and the Philippines-51th. Indonesia position in the GII is a reflection for the government to encourage the innovation ecosystem.

Table 1.1 Global Innovation Index (GII) 2017-2021

Country		Sco	ore (0-10	00)			F	Rankin	g	
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Switzerland	67.69	68.40	67.24	66.08	65.5	1	1	1	1	1
Netherlands	63.36	63.32	61.44	58.76	58.6	3	2	4	5	6
Finlandia	58.49	59.63	59.83	57.02	58.4	8	7	6	7	7
Jerman	58.39	58.03	58.19	56.55	57.3	9	9	9	9	10
Singapura	58.69	59.83	58.37	56.61	57.8	7	5	8	8	8
Jepang	54.72	54.95	54.68	52.70	54.5	14	13	15	16	13
Vietnam	38.34	37.94	38.84	37.12	37.0	47	45	42	42	44
Malaysia	42.72	43.16	42.68	42.42	41.9	37	35	35	33	36
Thailand	37.57	38.00	38.63	36.68	37.2	51	44	43	44	43
Indonesia	30.10	37.12	29.72	26.49	27.1	87	90	85	85	87
China	52.54	53.06	54.82	53.28	54.8	22	17	14	14	12
Brunei	32.89	32.84	32.35	29.82	28.2	71	67	71	71	82
Philipina	32.48	31.56	36.18	35.19	35.3	73	73	54	50	51
India	35.47	42.53	36.58	35.59	36.4	60	63	52	48	46

Source: Processed by Researchers from the Global Innovation Index (GII), (2021)

In the last third year, Cimahi City has 74 innovations that have been sent to the Ministry of Home Affairs to measure the value of the regional innovation index. The recipients of the Innovative Government Award were determined through a decision of the Minister of Home Affairs with the categories of 5 most innovative provincies, 10 most innovative regencies, 10 most innovative cities, 3 most innovative border areas, and 3 most innovative underdeveloped regions. In addition, the regional innovation index assessment also gives awards to other regions that have regional innovation index score above 60 or very innovative categories.

Regional Innovation selection was also carried out by Cimahi City by holding the Cimahi Motekar Award Innovation Competition (ChiMA). The ChiMA competition is one way to develop a culture of innovation in Cimahi City. This innovation competition is held every year to capture regional innovations in Cimahi City. The aim of the ChiMA competition is to improve the quality of innovation and the value of the regional innovation index. The opening and inauguration of the ChiMA competition was delivered by the mayor of Cimahi, Mr Ngatiyana (Zona 2021). The Mayor of Cimahi's speech said that innovating in sundanese is called Motekar. This innovation competition is called the ChIMA competition to develop a culture of innovation.



The downgrade in Cimahi City's ranking, which caused the regional innovation index value to decline, is quite concerning. This decline is subject to further evaluation and improvement. One indicator of regional success is measured in the achievement of regional innovation. The regional innovation index a system of measurement and assessment of the application innovation in regional government administration and is then reported to the Ministry of Home Affairs. Therefore, the regional innovation index serves as a means of regional innovation report.

The results of the evaluation by the Ministry of Home Affairs on filling out regional innovation units show several indicators that need to be improved. These various indicators, namely the socialization of innovation, replication, involvement between actors, and the quality of innovation. these four indicators need to be improved in the assessment of the regional innovation index. One indicator that is very important in overcoming various public problems is the involvement of actors. Indicators of involvement between actors Cimahi City ranks 49th with a score of 240, below Magelang City which ranks 13th with a score of 542. Meanwhile, Pekanbaru City ranks 21st with a score of 438, and Sukabumi City ranks 42nd with a score of 261.

Table 1.2 Regional Innovation Index Score of Cimahi City

Local Government	Score	Ranking	Category
Yogyakarta City	11.637	1	Very Innovative
Bontang City	11.236	2	Very Innovative
Tangerang City	10.762	3	Very Innovative
Palembang City	10.540	4	Very Innovative
Pekanbaru City	9.300	5	Very Innovative
Makassar City	8.562	6	Very Innovative
Bogor City	5.162	7	Very Innovative
Denpasar City	5.121	8	Very Innovative
Sukabumi City	4.675	9	Very Innovative
Bekasi City	4.669	10	Very Innovative
Magelang City	4.293	11	Very Innovative
Cimahi City	3.882	12	Very Innovative
Padang City	3.799	13	Very Innovative
Tangerang City	3.793	14	Very Innovative

Source: Results of Provincial, District and City Innovation Index Measurements

Innovation through collaboration can be carried out in government affairs that have complex public problems and are difficult to solve alone. Collaboration is defined as a process of cooperation involving various actors to achieve goals. Based on the problem of indicators involvement between actors that need to be improved, the description of the implementation process can use collaborative governance. Through the collaborative governance model put forward by Ansell and Gash (2007) it is considered relevant to describe the expected from of collaboration. The collaboration process goes through four stages, namely: (1) Initial Conditions, (2) Institutional Design, (3) Leadership, and (4) Collaborative Process. The collaborative governance model shows that collaboration provides benefits in achieving government function from cooperation that involves a variety of resources.

Local governments need to sort out what public problems can be responded to through collaborative innovation strategies. Innovation through collaboration is important in implementing innovation in the regions. Involvement between actors can help innovators choose the best ideas. Collaboration in regional innovation is needed to improve the application of innovation properly. Therefore, the author is interested in analyzing the regional innovation collaboration process by raising the title "Collaboration Strategy in efforts to Increase the Innovation Index in the City Government of Cimahi".



Innovation

The term innovation comes from the Latin innovative which means to change into something new. Innovation (innovation and innovate) itself is known in English vocabulary in the 16th century. The meaning of innovation is understood as "creating of something new" of creating something new (Suwarno, 2008). In this case, it is understood as the process of creating products (goods or services) using new methods or ideas. Dereli (Wijaya et al, 2019) explains that innovation is a process of implementing new ideas in the form of products or services that use technology. In line with that, according to Hurley (Curatman A. et al, 2016) innovation is defined as an organizational mechanism for adapting to a dynamic environment, so it is required to create new thought, new ideas for service improvement.

Public Sector Innovation

Public sector innovation is believed to need innovate because of demands for accountability, transparency, and various principles of good governance that spur public organizations to have higher performance (Suwarno, 2008). Innovation does not have to be new, but can adopt previous innovations and then update them. According to Palmer (Narsa, 2018) the definition of innovation in accordance with the public sector is the introduction and application of a new idea in a organization to improve performance and be utilized by the wider community. All organizations can innovate both the private sector, government, universities, and others. Mulgan dan Albury (Nugraha, 2019) clarified again that public sector innovations are new ideas that have been successfully implemented in the form of processes, products, services to produce increased efficiency, effectiveness, and organizational quality.

Regional Innovation

Regional innovation can be interpreted as all forms of renewal in the administration of regional government. Referring to this explanation, regional innovation can foster innovation carried out between local government institutions, research and development agencies, the business world, educational institutions, and local communities (Resen, 2015). In line with that, regional innovation proposals are not limited only from the Regional Government but are opened to wide opportunities for the community and other parties (PP No 38 Tahun 2017).

Regional Innovation index (IID)

The regional innovation index has a large dependence on Regional Apparatus Organizations (OPD), especially in inputting regional innovation index data (Kartika, 2020). It can be interpreted that the regional innovation index is a system for measuring and evaluating the implementation of regional government which has been reported to the minister of home affairs according to matters that are the authority of the region (Permendagri 104/2018). Regional innovations reported to the Ministry of Home Affairs are new innovations or contain elements of novelty. Sources of innovation implementation are financed by APBD funds or other legitimate funding sources. Ofcourse the reported innovations can be replicated by other regions.

Collaboration

Collaboration continues to develop in government because of interdependece between intitutions, as seen from public problems that are difficult to solve by just one government agency. solving these problems requires collaboration so that they can be resolved properly according to the agreed goals (Astari et al, 2019). Some of these definitions emphasize collaboration as a form of cooperation between individuals and parties involved to achieve organizational goals. The collaborating parties can be form the government, community and privat sectors. Collaboration is needed in achieving the organizational goals that have been set.

B. METHOD

This research use descriptive research is a type of research that is not related to statistics or quantitative in producing findings. Qualitative research produces descriptive information in the form of words, writing, and the behavior of the people being observed (Nugrahani, 2014).



Qualitative research is used by researches to find out and describe in depth related to collaborative strategies in an effort to increase the innovation index in the City Government of Cimahi and to analyze its suitability with the collaborative governance model of Ansell and Gash. Researches use the case study method to obtain information related to the collaboration process in an effort to increase the regional innovation index. It needs to be examined in depth by paying attention to data collection procedures, namely obervation, interviews, and document studies. Researches used primary data through interviews with informants and observation. In addition, secondary data was obtained through document studies in the form of archives, namely documents, photos of the innovation process, books and previous research journals. This study uses a credibility test, transferability test, dependability test, and confirmability test. The credibility test is a check of trust in the data results through triangulation techniques. In this study, using source triangulation, namely conducting comparisons from interviews with informants, and method triangulation, namely checking the results of interviews, observations, and document studies. The transferability test is defined as a technique for updating data which is described in detail and clearly so that it is easy to understand. The dependability test is an audit process by consulting with supervisors regarding the research process. Finally, confirmability can be carried out simultaneously with depandability to use confirmability in the research process. Data analysis techniques proposed by Miles & Huberman are data reduction, data presentation, and drawing conclusions. Mapping the necessary strategies using SWOT analysis techniques.

C. RESEARCH FINDINGS AND DISCUSSION

The Ministry of Home Affairs through the Research and Development Agency is mandated by law to carry out regional innovation assessment. The Ministry of Home Affairs continues to encourage local governments to come up with ideas through innovations that are implemented by local regulations or regional regulations. The number of regional innovations that have been reported by the Regional Government to the Ministry of Home Affairs from 2017 to 2019 was 8.016 innovations. In 2020, the number of innovation reports recorded was 17.779 innovations, include innovations to tackle the covid-19 pandemic. Significantly from year to innovation has increased through priority programs that have been carried out by the Ministry of Home Affairs. All regional governments are expected to continue to spur creativity to continue to innovate.

Regional Innovation assessment is carried out by the Ministry of Home Affairs based on regional innovation data that has been reported by the regional government according to the regional innovation level or index. The innovation assessment uses regional innovation index indicators. The innovation index reference is made to assess the innovations that have been carried out by each Regional Government. Based on the results of the innovation index, there are 4 (four) regional innovation predicates, namely: (1) very innovative regions, (2) innovative regions, (3) less innovative regions, and (4) regions that have not reported regional innovation data. As for regional innovation predicate based on regional innovation index values as follows.

Table 1.3 Regional Innovation Predicate Based on Innovation Index Value

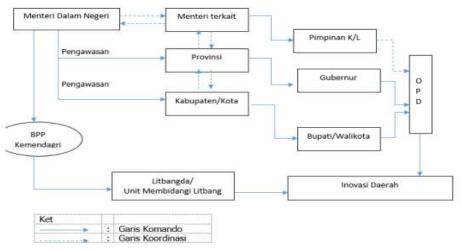
No	Regional Innovation Predicate	Mark Index
1	Very Innovative	>1.000
2	Innovative	501-1.000
3	Less Innovative	1-500
4	Not Yet Reported/Filled Innovation Data	0

Source: Asrori, et al, (2020)

Referring to this predicate, Cimahi City has experienced a decline from 2019 to 2020. The predicate has been quite good, namely very innovative. The index value for Cimahi City in 2019 was 24,010 and decreased in 2020 to 3,882. Based on Article 34 of Government Regulation Number 38 of 2017 concerning Regional Innovation that there is supervision in the implementation of regional innovations. Supervision is generally carried out by the Minister of Home Affairs. Then the Minister of Home Affairs will coordinate with related ministers such as heads of related non-ministerial government agencies. In addition, supervision is also carried



out on regional apparatus at both the provincial and district/city levels which will later supervise the regional apparatus involved.



Source: Asrori, et al, (2020)

Figure 1.1 Supervision of Regional innovations

The description of the research results describes the analysis of the data obtained through data collection techniques, namely interviews, obervations, and document study. The researcher suggests an analysis using collaborative governance theory from Ansell and Gash (2007), there are 4 dimensions that must be considered in collaboration between stakeholders to achieve success, namely: (1) Initial Conditions, (2) Intitutional Design, (3) Leadership, and (4) Collaborative Process.

1. Starting Conditions

The initial conditions in collaboration are influenced by several phenomena, namely stakeholders having common interests and visions to be achieved, history of collaboration in the past, trust built between stakeholders, collaboration that exists, resources and knowledge. Collaboration in the Cimahi City regional innovation index involves all regional apparatus from the regional secretary, DPRD, sub-district to sub-district levels. The regional innovation index is carried out to see the extent to which the value of innovation is for improvement regional competitiveness, the economy to the welfare of society.

The Cimahi City Government has followed the regional innovation index since 2019 until now. In 2020 there were 43 innovations reported to the Ministry of Home Affairs. The reported innovations are implementations from 2017 to 2020. The number of innovations is 43 from 15 Regional Apparatuses participating in the regional innovation index of the Cimahi City Government. Even though most of the innovation maturity levels are still below 100.00 as set by the Ministry of Home Affairs. However, the participations of Regional Apparatuses has been quite good in 2020.

In 2021 there will be an increase in the number of Cimahi City innovations in quantity and quality. There are 74 innovations collected in the regional innovation index. In addition, the participations of regional apparatus is also quite high with the addition of regional apparatus following the innovation index. This is a positive reference for the participation of regional apparatus. Most of the innovation maturity level has also reached 100.00 reported innovation.

Cimahi city in capturing regional innovations also launched an innovation competition. This competition is specifically owned by the City of Cimahi as a form of commitment to implementing government regulations. This competition is called the Cimahi Motekar Award (ChiMA). Chima competition can potentially increase the Regional Innovation Index (IID). This competition is an annual agenda held by Bappelitbangda since 2019. The actors involved range from ASN, OPD, Universities, industry, and society.

The regional innovation index is divided into 2 (two) assessment indicators. First, there are 16 indicators for the Regional Government System (SPD) and 20 indicators for the Regional Innovation System (SID). In the SPD indicator, there are 16 indicators to assess regional



conditions in innovation towards the progress of a region. In terms of the commitment of the regional head, it is contained in the RPJMD and RKPD. Furthermore, namely research and development institutions, Cimahi City through Bappelitbangda already has an research organization. In addition, Cimahi City together with universities also conduct research and innovation. One of the tertiary institutions in Cimahi City is UNJANI.

Based on assessment of 16 local government unit indicators in Cimahi City, it is known that the eighth indicator, namely the amount of increase in PAD, has not yet reached the implementation of innovation. The regional apparatus, namely Bappenda, has Si Bah Oci's innovtion, namely online BPHTB as the largest contributor to Cimahi City PAD from the regional tax sector. Cimahi City's regional innovation is contained in the preparation of goals and objectives in the 2018-2022 RPJMD. Innovation mapping has been carried out since 2019 to find out the innovation activities proposed to the Ministry of Home Affairs. The results of the assessment of 16 indicators show that the best ranking is in the number of regional innovations. Innovation in Cimahi City continues to increase from year to year. It has been proven that in 2020 there were originally 43 innovations to 74 innovations in 2021.

The second indicator is the regional innovation system by assessing the innovation products produced. Cimahi City innovation products are submitted to the Ministry of Home Affairs according to the assessed innovation maturity assessment. Assessment of regional innovation Unit (SID) indicators is carried out more on innovation products. Local government innovation results are assessed based on the supporting data evidence produced. Regional Governments need to attach supporting data in the form of photos of activities and regulations for each innovation. The 20 indicators that are requirements are listed in the table for the innovations proposed at the Ministry of Home Affairs.

Based on the results of the review and evaluation of the 74 innovations reported by Cimahi City, an assessment was carried out. Maturity assessment and verification are carried out by the Ministry of Home Affairs to be included in the regional innovation index nationally. Bappelitbangda Cimahi City has provided assistance and outreach to all regional apparatus organizations. The existence of technical guidelines becomes a shared understanding of how innovation will be carried out.



Source: indeks.inovasi.litbang.kemendagri.go.id

Figure 1.2 Results of the Regional Innovation Variable Assessment of Cimahi City

There are 7 (seven) assessment variables, namely institutions, human resources and research, infrastructure, product sophistication, business process speed, knowledge and technology output, and creative results. From the seven aspects of the regional innovation index assessment, the main strenghts of Cimahi City lie in creative results, infrastructure, business process speed, human resources and research as well as knowledge and technology output. While the other two aspects are still below, such as institutions at 45 and product sophistication, namely 60.



Institutional Design

Relates to basic procedures and regulations in a collaboration process for a legal procedural, process transparency, participant inclusiveness, and forum exclusivity. In assessing the regional innovation index, there are policy regulations from the central government, namely law number 23 of 2014 concerning Regional Government and Government Regulation number 38 of 2017 concerning regional innovation. In addition, the Ministry of Home Affairs also issued Permendagri number 108 of 2018 concerning measurement, evaluation, giving, rewarding and/or regional innovation incentives.

Local governments are mandated to create a legal umbrella through regional regulations or regional head regulations that regulate regional innovations. This is intended for the continued application of regional innovation. Regions have strong policy regulations in the sustainability of innovation. However, the city of Cimahi does not yet have a regional regulation that regulates innovation in the region. Each head of service makes a separate decree in managing innovation. This has a policy basis that is considered weak when compared to local regulations or regional regulations. The head of the research and development department at Bappelitbangda explained that there was no regulation regarding innovation policy in Cimahi City. In 2020, regional regulations will not be used, only through decrees from each service head. However, currently a mayor regulation is being drafted or included in a regional head regulation regarding innovation procedures in Cimahi City.

The institutional design of the collaboration process is related to the basic procedures and regulations in innovation collaboration in the Cimahi City Government. Bappelitbangda as the leading sector that collects regional apparatus innovations so that regional apparatuses continue to coordinate with governing regional collaboration and innovation processes. this is due to the absence of regional regulations/mayor regulations regarding innovation in the City of Cimahi. Even though Perda/Perwal is very important as a legal umbrella in implementing innovation for innovators in Cimahi City. For this reason, regional apparatuses use the decree of the head of service for each regional work unit as a policy regulation in assessing the regional innovation index.

3. Leadership

Leadership is important in embracing, empowering, and invloving stakholders in the success of collaboration. Effective collaboration will be hampered by a lack of leadership. Facilitative leadership is related to deliberations carried out by stakeholders, establishing clear ground rules, facilitating dialogue between stakeholders and sharing mutual benefits. Bappelitbangda continues to provide assistance to all regional apparatuses in Cimahi City according to the tasks and principles of the research and development function in the region. This can be seen from the way it embraces and involves all stakeholders. In the 2021 regional innovation index, technical guidance for all OPD will be held, facilitated by Bappelitbangda by presenting speakers from the Ministry of Home Affairs for 3 (three) consecutive days. This is done to provide a common understanding to all OPD in innovating and to understand the regional innovation index indicator requirements. The Bimtek is an effort from Bappelitbangda to facilitate face to face dialogue via zoom meetings in filling out the regional innovation index.



Source: Cimahi City Bappelitbangda Archives, (2022) Figure 1.3 Ministry of Home Affairs Technical Guidance



The Head of the Research and Development Division of Bappelitbangda emphasized that dialogue facilitation is often carried out for all regional apparatuses in Cimahi City. This facilitation, both formally and informally, continues to be carried out by Bappelitbangda. This is a form Bappelitbangda's commitment in accordance with the mandate of the law. Apart from that, PD is participation and enthusiasm a separate motivation for the R&D sector to continue managing innovation even with limited human resources in quantity.

Leadership in assessing the regional innovation index in the Cimahi City Government has the responsibility of each party, namely Bappelitbangda as the leading sector, namely the facilitator in terms of leadership who is responsible for managing and gathering innovation from all regional apparatus according to the mandate of the law. Bappelitbangda also fully supports government programs in the successful implementation of regional innovations because leadership has a major influence on the course of a collaborative process. The regional apparatus also has service heads who are very supportive of the growth of innovation in each OPD. Apart from that, support from regional leaders, in this case the Mayor of Cimahi, also really supports the growth of innovation in Cimahi City, which can be seen from the existence of the Cimahi innovation competition, which is fully supported by the regional leaders.

4. Collaborative Process

The collaborative process is an important variable, starting with face-to-face dialogue related to good trust, after that face to face dialogue goes well be formed which will affect commitment in the collaboration process. The commitment that is formed will affect the shared understanding regarding public issues and a clear mission among stakeholders.

The regional innovation index is managed by Bappelitbangda for all regional apparatuses in Cimahi City. Bappelitbangda also builds trust between regional apparatuses to innovate that is dynamic and continues to grow. This motivates regional apparatus to continue to innovate to foster a positive innovation climate in Cimahi City. The Ministry of Home Affairs provides a website for each Regional Government to report on their innovations. The website is used to facilitate reporting and monitoring carried out by the Ministry of Home Affairs. Each local government reports all of its innovations on a predetermined menu. Regional apparatus can input themselves or through Bappelitbangda and will be checked periodcally.

In line with this, Bappelitbangda carried out its responsibility to facilitate discussion forums between confused regional apparatuses. The communication forum was held to find out the obstacles experienced by regional apparatuses as well as the technical guidance provided regarding filling in the supporting data. Both from the sub-district level to the Setwan, data collection was carried out by Bappelitangda. The forum was also attended to convey the difficulties of regional apparatuses in innovating. In addition, existing communication forums such as whatsapp and regular meetings are held to fill in data to support innovation.

The collaborative process that occurred in the assessment of the regional innovation index in the Cimahi City Government has been going well, but it is not optimal. This process is an important variable, where the collaborative process begins with face-to-face dialogue between Bappelitbangda, Ministry of Home Affairs and all regional appartus involved. Indeed, initially there were several obstacles or problems faced by the Regional Apparatuses, but they could be addressed wisely and accompanied by Bappelitbangda. This can be seen from Bappelitbangda which facilitates face-to-face dialogue through meetings, technical assistance, whatsapp groups, and socialization of regional innovation index assessments.

Barriers to Regional Collaboration

The process of collaborative governance in the Cimahi City regional innovation index can be seen from several obstacles experienced by regional apparatus. The inhibiting factors in increasing innovation were found by regional officials in the Cimahi City Government. These obtacles are felt in the regional innovation index so that they do not run optimally. Some regional apparatuses experience relatively the same constraints or obstacles. Most said that there was a lack of understanding of filling in data to support innovation, low involvement of actors in innovations, ASN's preoccupation with managing regional innovation, limited human resources and budget support. Some of the obstacles that occur need to be analyzed in order to



find a solution to handle the problem. Tracing the obstacles experienced by regional officials was carried out through interviews with several informants in the Cimahi City Government. The following are the obstacles encountered in the regional innovation index collaboration in Cimahi City.

- Lack of understanding in collecting data to support innovation
 Collecting data to support innovation in the regional innovation index is important. The
 supporting data is seen for compline with the requirements of the Ministry of Home
 Affairs. It is hoped that the evidence of innovation data will become a reinforcement in
 measuring the maturity of an innovation. In data collection, it was felt that there were
 obstacles described by Bappelitbangda. This was explained in detail by the Head of
 innovation and technology related to difficulties in collecting data to support the regional
 innovation index.
- 2. Low involvement between actors in innovation There is still low involvement between actors in the collaborative process of assessing the regional innovation index in Cimahi City. Involvement between actors is still low due to the many innovations in governance that still need to be increased involvement with other actors. The indicator of involvement between actors is one of the indicators in the regional innovation index. This means that the size of collaboration is still low because the innovations that exist are mostly from governance. Even so, it still needs to be increased involvement with other actors that support the government. Data from Bappelitbangda shows that this indicator is still considered low because there is no evidence or data related to forms of cooperation so it is considered low. Then is still needs to be improved as seen from the innovations that implement the collaboration process.
- 3. The ASN's busyness in managing regional Innovation it is undeniable that the innovators are mostly from regional apparatus. In addition to fulfilling obligations in administering government, it also carries out innovation activities. This triggers innovators not to deploy their ideas and ideas for innovation. So that many regional apparatuses are busy in carrying out their duties.
- 4. Limited Human Resources and budgetary resources

 Limited human resources in regional apparatuses and budgets are an obstacle to increasing the regional innovation index. Human resources are important in improving the quality of innovation. The innovations produced will be of high quality from qualified human resources as well. The need for regular training and guidance for human resources in all regional apparatuses is an important key to overcoming these obstacles. Mr Nandang from CimahiTengah district emphasized budget and human resources limitations which obstacles for regional apparatus to innovate.

Collaborative Strategy in Regional Innovation Index Assessment

The analytical technique used in this study to analyze strategic issues or factors is a SWOT analysis consisting of strengths, weakness, opportunities and threats. SWOT is an analysis technique that is considered effective for formulating strategies for problems that occur in the internal and external environment. Through SWOT analysis, we can find our strategic issues or factors that can be developed to increase collaboration between regional apparatuses in innovation competitions in the Cimahi City Government. The following are the stages in a SWOT analysis.

1. SWOT Analysis

Based on the analysis that has been carried out using the collaborative governance model according to Ansell and Gash (2007) to see the collaboration process of regional apparatus on the regional innovation index in the Cimahi City Government. Researches also used the SWOT analysis technique to determinate what are the strengths, weakness, opportunities, and threats related to the collaboration of regional innovation index in the Cimahi City.

a) Strength

The strengths in assessing the regional innovation index in the Cimahi City
Government include, (1) very high leadership commitment related to innovation in



Cimahi City, (2) having Cimahi Technopark as a forum for innovation development in Cimahi City, (3) There is a Cimahi Motekar Award Competition (ChIMA) as a platform for regional innovation assessment, and (4) Mobile innovation clinic assistance.

b) Weakness

Several aspects of the weakness of the Cimahi City Government in assessing the regional innovation index, namely: (1) There are no local regulations such as Perda/Perwal regarding innovation in Cimahi City, (2) Lack of Human Resources who are skilled in managing innovation, and (3) Low budget support.

Opportunity

Opportunities owned by Cimahi City in assessing the regional innovation index, namely: (1) Increasing cooperation through the ABCGM concept (Academics, Business entities, Community, Government, and Media), (2) Open access to innovation funds from the Ministry domestically, (3) Increasing economic growth and regional competitiveness.

d) Threats

Some of the threats that Cimahi City has in assessing the regional innovation index, namely: (1) Increased enthusiasm of other regional governments for innovations, (2) Not optimal media socialization to convey innovation, and (3) Preoccupation with routine regional apparatuses in managing innovation.

2. **SWOT Table**

Based on the results of determining the SWOT analysis, it will then be entered into a table of strenghts, weakness, opportunities and threats according to internal and external.

Table 1.4 Developing SWOT

	INTERNAL		EKSTERNAL
	Strength		Weakness
1.	The commitment of the regional	1.	There are no regional regulations
	leadership is very related to		such as Perda/Perwal on
	innovation in Cimahi City		innovation in Cimahi City
2.	Cimahi Technopark as a place for	2.	Lack of capable and skilled
	innovation development in Cimahi		human resources in managing
	City		innovation
3.	There is a Cimahi Motekar	3.	Budget support that is still under
	Competition Award (ChiMA) as a		
	medium regional innovation		
	assessment		
4.	Innovation clinic assistance		
	(Klinsing)		
	Opportunity		Threats
1.	Increased cooperation ABCGM	1.	Rising enthusiasm other local
	concept (Academics, Business		governments in innovate
	entities, Community, Government	2.	Not optimal Media socialization
	and Media)		to convey innovation
2.	Open access to innovation funds	3.	Busy PD routines in the regional
	from the Ministry of Home Affairs		economy managing innovation.
3.	Improving growth and		
	competitiveness in		

The process of comparing external factors with internal factors to determine alternative strategies that can solve problems/obstacles that occur. In the process of collaboration between regional apparatuses in assessing the regional innovation index in the Cimahi City Government, it can be seen in the SWOT matrix table.

Table 1.5 SWOT Matrix Results

	Strength	Weakness
Internal	<u>strength</u>	1. There is no regional
Eksternal	 The commitment of regional leaders is very high regarding innovation in Cimahi City Cimahi Technopark Cimahi as a forum Cimahi City There is a Cimahi Motekar Award (ChiMA) as a forum for evaluation regional innovation Mobile innovation clinic assistance (Klinsing) 	regulation such as Perda/Perwal on innovation in cities 2. Lack of human resources innovation development in able and skilled managing innovation 3. Low budget support
1. Increased cooperation through the concept ABCGM (Academy, Business entities, communities, Government and Media) 2. Open access innovation fund from the Ministry domestic 3. Increase economic growth and regional competitiveness	SO Strategy 1. Optimizing increased cooperation through the concept ABCGM (Academy, Business entities, communities, Government and Media) 2. Developing the Cimahi Technopark area for regional quality innovation 3. Optimizing mobile innovations for open access to innovation funds	WO Strategy 1. Strengthening regulations that can be done in the form of Perwal on regional innovation or through SK Head of service 2. Training and technical guidance on human resources for regional apparatuses whose manage regional innovation 3. Increased cooperation clinic with other agencies such as BRIN, BP2D to reduce the budget
Threats 1. Increased enthusiasm of other regional governments in innovate 2. Socialization media is not yet optimal to tell innovation 3. The busy of internal PD routines managing innovation	1. Optimizing socialization to invite local officials to participate in innovation 2. Optimizing media to deliver creative and innovative innovations 3. Collaborative with the ABCGM concept including BRIN, BP2D, Ministry of Home Affairs, KemenPAN RB	WT Strategy 1. Socialization each PD regularly to attract public interest 2. Strengthening cooperation between PD's in the innovation made

5. Conclusion of Internal Factor Analysis (KAFI) and Conclusions of External Factor Analysis (KAFE)

Weighting is done by giving a scale ranging from 1,0 (most important) to 0,0 (not important). Ratings are scale ranging from 4 (outstanding) to 1 (poor). Meanwhile, the rating on the opportunity factor is positive, the greater the opportunity is given a rating of +4, but if the opportunity is small, it is given a rating of +1. Finally, giving a rating on the threat factor, namely the greater the threat is given a rating of 1 and the less threat is given a rating of 4.



a) Internal Strategic Factors

Table 1.6 Conclusion of Internal Factor Analysis (KAFI)

No.	Internal Strategy Factors	Bobot	Rating	Scor (BxR)
1	2	3	4	5
	Strength			
1	The regional leadership is very committed innovation related to Innovation in Cimahi City	0,10	4	0,40
2	Cimahi <i>Technopark</i> as a place for innovation development in Cimahi City	0,15	4	0,60
3	The existence of the Cimahi <i>Motekar Award</i> (ChIMA) as a forum regional innovation assessment	0,15	3	0,45
4	Mobile innovation clinic assisstance (Klinsing)	0,10	4	0,40
	Total Strength	0,50		1,85
	Weakness			
1	There is no such regional regulation Perda/Perwal concerning innovation in Cimahi City	0,25	2	0,50
2	Lack of capable human resource and skilled at managing innovation	0,15	2	0,30
3	Low still budget support	0,10	1	0,10
	Total Weakness	0,50		0,90
	Amount	1,00		

b) External Strategic Factors

Table 1.7 Conclusion of External Factor Analysis (KAFE)

No.	External Strategy Factors	Bobot	Rating	Scor (BxR)
1	2	3	4	5
	Opportunity			
	Increased collaboration through			
1	ABCGM concept (Akademics,	0,20	3	0,60
1	Business, Community, Government	0,20		
	dan Media)			
2	Open access to innovation funds	0,15	3	0,45
_	from the Ministry of Home Affairs	0,10	3	0,±0
3	Increase economic growth and	0,15	3	0,45
5	regional competitiveness	0,15	3	0,40
	Total Opportunity	0,50		1,50
	Threat			
1	Increase enthusiasm other regional	0,15	3	0,45
-	governments in innovate			
2	Not yet optimal media socialization	0,15	2	0,30
_	to convey innovation	0,10	_	0,00
3	The busy of inner PD routines	0,20	4	0,80
5	managing innovation		-	0,00
	Total Threat	0,50		1,55
	Amount	1,00		



6. Diagram Cartesius Analysis SWOT

After determining the number of weights and ratings of internal and external factors, then the next step is to develop a strategy quadrant point (x,y) uses the following formula.

- $\frac{Total\ strength\ score-total\ weakness\ score}{2} X \frac{Total\ opportunity\ score-total\ threat\ score}{2}$:Y
- $\frac{S-W}{2}$; $\frac{O-T}{2}$
- $\frac{1,85-0,90}{2}$; $\frac{01,50-1,55}{2}$
- 0,95;-0,05

The coordinates are located at (0,95;-0,05)

The x and y coordinate points that have been determined will be included in the Cartesius SWOT diagram.

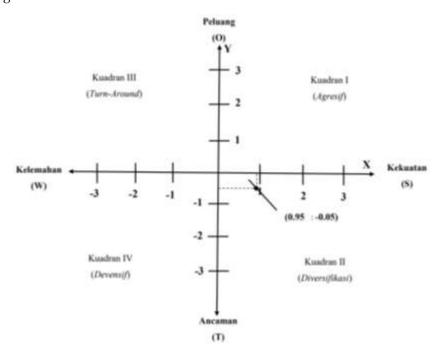


Figure 1.4 Cartesius SWOT Diagram Results

7. Choice of Alternative Strategies

In the diagram above, it can be seen that the collaborative strategy between regional apparatuses in increasing the innovation index in the Cimahi City Government is in a quadrant II it can be said that the strategy faces various threats that can become a weakness in its collaboration, but the Cimahi City Government still has strengths from an internal perspective. The strategy that can be applied is to use strength to take advantage of long-term opportunities which are carried out by means of a diversification strategy (product/market). The strategy that can be used to support collaboration between regional apparatuses in increasing the innovation index is to add products or innovations to increase the regional innovation index assessment.

The strategy that can be optimized in increasing collaboration between regional apparatuses in Cimahi City is from the human resources side. Overcoming the obstacles or obstacles faced, the researchers created alternative strategies that were carried out using SWOT analysis, namely as follows:

1. Training or technical guidance for regional apparatus

The low capacity of human resoruces will affect the innovations produced. There is a need for regular training and technical assistance related to public sector innovation. In addition, the Ministry of Home Affairs can also provide assistance to Regional Governments in innovation. It is hoped that regular training can improve the quality of human resources in Cimahi City.



- 2. Sosialization routine to increase stakeholder participation in the regional innovation index
 - Socialization can be carried out regularly to attract public interest in using innovations that have been made by PD. Socialization can be carried out by picking up the ball to the sub-district or regional apparatus to be announced to the public in stages. This is so that people know about the innovations that have been made and understand how to use these innovations. Socialization can be done through infographica that attract regional official's interest in innovation.
- 3. Increasing cooperation through the ABCGM (Akademics, Business entities, Community, Government and Media)
 - It is felt that innovation can create convenience in administering government. Besides that, innovation is less than optimal if it runs separetly. There needs to be cooperation with various parties according to the pentahelix ABCGM concept. The Cimahi City Government can carry out innovation collaborations with various other agencies, such as BRIN (National Innovation Research Agency), west Java provincial government BP2D, Ministry of Home Affairs, LAN RI, Private sector, Society, and the media.
- 4. Strengthening regional innovation policy regulations The absence of regional regulations governing innovation will be a weakness for Cimahi City to compete with other regions. The need for regional regulations as the highest legal umbrella that regulates the procedures and rules for innovation to be produced. Beside that, collaboration can also contain rules between regional apparatuses in achieving common goals.
- 5. Building collaboration between regional apparatuses in innovation Indeed, there have been innovations based on collaboration between regional apparatuses in Cimahi City, but this has not been carried out optimally. The need for responsibility and awareness from each PD to collaborate.

D. CONCLUSION AND RECOMMENDATION

Conclusion

Based on the results of the analysis that has been carried out, the researcher concludes that the collaboration strategy in increasing the innovation index in the Cimahi City Government in this implementation is still not optimal. It can be concluded that:

- 1. Collaboration between regional apparatuses in the innovation index in Cimahi City Government is analyzed using collaborative governance theory from Ansell and Gash (2007) with four dimensions.
 - a) Starting Conditions
 - The results of data analysis related to the dimensions of the initial conditions for measuring the regional innovation index in the Cimahi City Government are said to have been going well in terms of stakeholders involved between government and non-government, the participation of regional apparatus following the innovation index and the presence of shared interests between regional apparatuses.
 - b) Institutional Design
 It can be said that the dimensions of institutional design have not been well achieved, as seen from the absence of basic rules regarding innovation and collaboration in the form of Perda/Perwal. This is very important as the highest legal umbrella for innovation.
 - c) Leadership The role of the leader is the main key in implementing blood innovation. Leadership in the regional innovation index process can be said to be very good because the role of the leadership starting from the head of the region, head of the agency and field pays very high attention to innovation in each regional apparatus. This can be seen from Bappelitbangda facilitating dialogue and deliberation between regional apparatuses.
 - d) Collaborative Process It can be said that it is not optimal, as can be seen from the lack of understanding among PD's related to the regional innovation index. There are also commitments from regional apparatuses who are responsible or lacking in participating in innovation activities.



Even though from a face-to-face dialogue point of view it has been carried out via whatsapp group and zoom meetings.

- Obstacles to collaboration between regional apparatuses in the regional innovation index in Cimahi City Government, including: not yet optimal understanding of regional apparatuses in collecting data to support innovation, low involvement between actors in regional innovation, ASN busyness in managing regional innovations, and limited human resources and budget.
- 3. Based on the results of the SWOT analysis that has been carried out, the city government of Cimahi in increasing the regional innovation index needs to implement a diversification strategy with the S-T (Strength-Threat) pattern. The collaboration strategy formulated in the study based on SWOT analysis of internal factors and external factors can be explained that collaboration between regional apparatuses in the innovation index in the Cimahi City Government faces various threats that can become weakness of collaboration, but Cimahi City still has internal strengths to prevent these therats be a weakness in collaboration.

Recommendation

Based on the conclusions from the results of research on "Collaboration strategy in increasing the innovation index in the Cimahi City Government". The strategy that has been formulated as input that can be considered is described as follows:

- 1. For the Cimahi City Government as a regional government that participates regional innovation index.
 - a) Strengthening regional innovation policy regulations. The absence of regional regulations governing innovation will be a weakness for Cimahi City to compete with other regions. The need for regional regulations as the highest legal umbrella that regulates the procedures and rules for innovation to be produced;
 - b) Fostering a culture of innovation in Cimahi City through rewards and punishment for all regional apparatuses in Cimahi City;
 - c) Collaborating through the ABCGM concept model (Academics, Business entities, Community, Government, dan Society) such as BRIN, BP2D, LAN RI, privat sector and other agencies;
 - d) Increasing regional innovation competitions specifically in Cimahi City, namely the Cimahi *Motekar Award* (ChIMa) competition which is routinely held every year;
 - e) Conduct analysis and comparative studies with other regional governments which can be replicated in measuring the regional innovation index.
- 2. For the Regional Development Planning, Research and Development Agency for Cimahi City as the coordinator and facilitator of the regional innovation index
 - a) Optimizing the innovation pyramid that has been developed by Bappelitbangda for regional innovation management and innovation research information centers;
 - b) Providing consistent assistance to regional apparatus through mobile innovation clinics;
 - c) More optimal use of social media as a means of communication and policy advocacy for all regional apparatuses in Cimahi City;
 - d) Conduct socialization related to regional innovation index technical and other measures of innovation.
- 3. For Regional Apparatuses participating in measuring the regional innovation index in Cimahi City
 - a) Coordinate consistently with Bappelitbangda regarding technical guidelines for measuring the regional innovation index;
 - b) Increasing participation and promotion through various social media or another official platform in innovating.

REFERENCES

Ahyar, Hardani et al. 2020. Book of Qualitative Research Methods & Quantitative. Yogyakarta: CV. Science Library.

Danim. 2002. Being a Qualitative/Quantitative Researcher. Bandung: Faithful Library.





- LAN RI Education and Training. 2014. "Innovation in the Public Sector" in innovation in the Public Sector, Jakarta: LAN RI, 50.
- Nugrahani, Farida. 2014. 1 Qualitative Research Methods in Language Education Research.
- R&D Center, Regional Innovation. 2021. General Guidelines for Assessment and Awarding & Technical Explanation of the Daerali Innovation Index Indicator. Jakarta.
- Prakoso Bhairawa. 2016. Regional Innovation Policy in the Order of Laws Number 18 of 2022. ed. Martinus Helmiawan. Jakarta: LIPI Press.
- Rahim, Rahman, and Enny Radjab. 2017. Strategic Management. 1st ed. Makassar: Muhammadiyah University Library and Publishing Institute Makassar.
- Rangkuti, Freddy. 2015. Personal SWOT Analysis: Opportunities Behind Every Difficulty. Printing 1. Jakarta: Jakarta: Gramedia.
- Saleh, Choirul. 2020. "Concept, Definition, and Purpose of Collaboration". Universitas 1: 7-8.
- Sugiyono. 2014. Quantitative, Qualitative, and R&D Approach Research Methods. 19th ed. Bandung: Alphabet: Bandung.
- Suwarno, Yugi. 2008. Innovation in the Public Sector. First. Jakarta: STIA LAN Pers.
- Wahyudi, Andi et al. 2020. DECENTRALIZATION OF DAERAI INNOVATION. Pert Edition. ed. Siti Zakiyah Andi Wahyudi. Malang: Selaras Media Kreasindo Publisher.
- Yusuf, Muri. 2013. Quantitative Research Methods, Qualitative & Join Research.
- Annisa, Indi, Joni Dawud, Ely Sufianti, and Endang Wirjatmi. 2020. "Models Collaborative Governance in Controlling Industrial Wastewater Pollution in Purwakarta Regency Using Systems Thinking". Journal of State Administration 9: 110-16.
- Ansell, Chris and Gash. 2008. "Collaborative Governance in Theory and Practice." Journal of Public Administration Research and Theory 18(4): 543-71.
- Arrozaaq, Dimas Luqito Chusuma. 2016. "Collaborative Governance (Study of Collaboration Between Stakeholders in Regional Development Mitrapolitan in Sidoarjo Regency." Public Policy and Management 3: 1–13. http://repository.unair.ac.id/67685/.
- Mahadin.et al. 2019. "Intergovernmental Collaboration Mode of Transportation in Makasar City (Case Study of Motorized Becak Vehicles)." JPPM: Journal of Public Policy and Management 1(1): 1-8.
- Astuti, Retno Sunu et al. 2020. "Cover Collaborative Governance.": 161.
- Curatman A. et al. 2016. "Analysis of Factors Influencing Product Innovation Impact on the Competitive Advantage of Food and Beverage SMES in the Harjamukti Region, Cirebon City." Journal Logic XVIII(3): 61-75. http://jurnal.unswagati.ac.id/index.php/logika/article/view/263.
- Dorisman, Asri dkk. 2021. "Past Accident Management Lintas Collaboration Between Stakeholders In Traffic Accident Management." Journal State Administration 17(1): 74. https://jiana.ejournal.unri.ac.id/index.php/JIANA/article/download/7966/pdf.
- Febrian, Ranggi. 2018. "REGIONAL INNOVATION FROM A REGULATORY PERSPECTIVE, CONCEPTUAL, AND EMPIR (Review of Article 386 of Law Number 23 of 2014 concerning regional government)." Journal Of Government, Social and Politics 4(1): 44–55.
- GII. 2021. "GII 2021 Results The GII Helps Create an Environment That Evaluates Innovation Factors Continuously . In 2021, It Provides Detailed Innovation Metrics for 132 Economies ." GII 2021 Results: 21-37.
- Hasugian, Leonardi Paris. 2020. "Strategy Collaboration Planning University to optimize U2U.":
- Hutagalung, Simon Sumanjoyo, and Dedy Hermawan. 2018. "Building Government Innovation Region." Deepublish: 1-215. http://repository.lppm.unila.ac.id.
- Kartika, Ray Septianis. 2020. "Competence of State Civil Apparatus Regional Research and Development in Completing the Innovation Index Region of Banggai Regency Central Sulawesi Province." Innovation 17(2): 245-55.
- Kirana, Cintantya Adhita Dara, and Rike Anggun Artisa. 2020. "Development Tourism Village Based on Collaborative Governnace in Batu City." Collaboration: Journal of Public Administration 6(1): 68-84.
- Narsa, Niluh Putu Dian Rosalina Handayani. 2018. "Service Innovation: A Comparative Literature Review of the Privat Sector and The Public Sector" Accounting Periodic and Indonesian Finance 3(2): 46.



- Nazarudin. 2020. NoerFikri Offset Strategic Manajement.
- Nugraha, Hari. 2019. "Innovation Implementation Models in the Public Sector Study on One Stop E-Office Innovation at PKASN LAN Puslatbang." Performance Discourse Journal: Practical Academic Study of Public Service Performance and Administration 22(2): 183–96.
- Prasetyo, Andjar et al. 2020. "Comparison of Innovation Processes in Perspective Regional Government Policy and Regional Competitiveness." REP journal (Research Development Economics) 5: 47–59.
- Ra'is, Umamur Dekki, and Abd. Rohman. 2020. "Regional Innovation as a Source of Increasing Regional Original Income (PAD) and Accelerating Regional Innovation." Conference of Administrative Science: 67–72.
- Resen, Made Gde Subha Karma. 2015. "Regional Innovation (Reflections and Regulation of Regional Innovation in Indonesia)." Udayana Master Law Journal 4: 680–87.
- SEPAKAT. 2021. "Socialization of the 2021 Regional Innovation Index."
- Sufianty, Ely. 2014. "Leadership and Collaborative Planning in Non Collaborative Societies." Journal of Urban and Regional Planning 25(1): 78–96.
- Sururi, A. 2019. "Public Policy Innovation." Journal of Chemical Information and Modeling 1689-99.
- UU Nomor 23/. 2014. Indonesia.
- Wijaya, Rangga Agus et al. 2019. "The Importance of Managing Innovation in an Era Competition." Indonesian Journal of Management and Business 5(2): 217–27. http://jurnal.unmuhjember.ac.id/index.php/JMBI/article/view/2922.
- Zone, Bandung. 2021. "Cimahi Motekar Award (ChiMA) Innovation Culture Development Milestone Cimahi City. Tonggak Pengembangan Budaya Inovasi Kota Cimahi." Zone Bandung: 2.
- Minister of Home Affairs Regulation Number 104 of 2018 concerning assessment and Awarding Regional Innovation Incentives
- Government Regulations Number 38 of 2017 concerning Regional Innovation
- Law Number 23 of 2014 concerning of Regional Innovation
- Bappelitbangda Cimahi City. 2021.Guidebook for Completing the Information System for Measurement Maturity Index for the 2021 Cimahi Motekar Award (ChIMA) Competition Innovation. Cimahi: Research and Development Sector Bappelitbangda Cimahi City.