PAPER • OPEN ACCESS

Research on the development for emerging industries in Nantong under the national strategy

To cite this article: Zhongnian Li et al 2017 IOP Conf. Ser.: Earth Environ. Sci. 81 012108

View the <u>article online</u> for updates and enhancements.

You may also like

- Reliability analysis of different structure parameters of PCBA under drop impact
 P S Liu, G M Fan and Y H Liu
- Application of fuzzy PID controller for valveless hydraulic system driven by PMSM Zifan Miao and Yang Cao
- Research on crushing and recycling of waste concrete

 Wenbo Ai, Hongmei Liu, Jian Zhang et al.



doi:10.1088/1755-1315/81/1/012108

Research on the development for emerging industries in Nantong under the national strategy

Zhongnian LI, Yan QIN, Lijuan ZHANG, Tianying LI, Qing WANG

School of electrical & energy engineering, Nantong Institute of Technology, China

Abstract: In this paper, according to the relevant national strategic emerging industry planning and policy, conducted in-depth research on the development of emerging industries in Nantong, and believes that current economic social development in Nantong has been entered into a new normal period, in the new period to "innovation" as the core characteristics, strategic emerging industry opportunities and challenges facing the industry. Therefore, Nantong should persist in innovation driven, focus on the cultivation and development of new industries, to provide new impetus to Nantong's economic vitality and development. According to the development and upgrading of traditional industries, and expand the advantages of industry, cultivate new industries, for each kind of industry to come up with specific development strategies and suggestions: Nantong municipal government will be the seven emerging industries four in the industry (i.e., new material industry, new energy industry, new information technology industry, high-end equipment manufacturing industry) as the development object, further "bigger and stronger", and strive to enhance the industrial scale and the formation of local characteristics as soon as possible.

1 Introduction

Strategic emerging industry is a major technological breakthrough and major development needs based on the overall economic& social areas and long-term development has significant leading role, knowledge and technology intensive, less consumption of material resources, growth potential lager. according to the planning and policy related to State Council strategic emerging industries, it is conducted in-depth research on the development of emerging industries for Nantong [1]. Current economic and social development in Nantong has been entered into a new normal, in the new period of "innovation" as the core characteristics, development opportunities and challenges of strategic emerging industries coexist. Therefore, Nantong should persist in innovation driven and focus on the cultivation and development of emerging industries, to provide new vitality and momentum for economic development in Nantong. It has been suggested that Nantong municipal government should developed the top four industries (i.e. new material industry, new energy industry, new information technology industry, high-end equipment manufacturing industry), to be further "bigger and stronger". Promoting the industrial scale and the formation of local characteristics should be made as soon as possible. At present, Nantong's economic and social development has entered a new normal, in the "innovation and winning" as the core characteristics of the new era, emerging industries are facing opportunities and challenges. Therefore, Nantong should actively carry out the considering, masterminding, planning, programming optimization, designing, the supporting industries, persist in innovation driven, focus on the cultivation and development of emerging industries in Nantong. It's meaningful to provide new development vitality and impetus for Nantong's economic. [2]

Content from this work may be used under the terms of the Creative Commons Attribution 3.0 licence. Any further distribution of this work must maintain attribution to the author(s) and the title of the work, journal citation and DOI.

IOP Conf. Series: Earth and Environmental Science 81 (2017) 012108

doi:10.1088/1755-1315/81/1/012108

2 Problems & Countermeasures

Based on the background and current situation for the emerging industries development in Nantong, be sure to pay attention to the emerging industries development leading role on Nantong's economic growth in the future; and the group that the development of new industries in Nantong to research & solve the problems are the following 5 main questions (which is the main content and important point of this topic to be researched & clarified). [3] [4]

2.1 Main problems

- 2.1.1 Scale advantage has not yet formed: Although the development of new industries in Nantong has begun to take shape, but the overall scale advantage has not yet formed, the largest amount of new material industry is not up to one billion. In addition, many government planning industrial park is still a lot of space, relying on each other, the economies of scale of resource sharing has not yet been achieved. In the traditional economy, Nantong has the typical characteristics (such as textile industry, ship building industry and so on), then in the field of strategic emerging industries, how to build as soon as possible and formed with local characteristics of the industrial sector, also need to actively plan and vigorously promote. [5]
- 2.1.2 Less number of leading enterprises: At present, Nantong included in the emerging industry statistics of 1411 scale industrial enterprises, industrial output value reached 1 billion yuan only 63 companies, of which the total output value of the new largest enterprises is only about 7 billion yuan, has exceeded 10 billion. From the enterprise scale, more than the size of Nantong emerging industries, small and micro enterprises number 1174, accounting for 83.2%; and the number of large and medium-sized industrial enterprises were 52, 185, accounted for 3.7% and 13.1%, the proportion of small. A large number of scattered small and micro enterprises means that the dispersion of resources, production capacity is not concentrated, it is difficult to form a joint force in the industry, the lack of large leading enterprise groups, so the emerging industries in Nantong gold needs to be improved. [6]
- 2.1.3 Ability on the independent innovation is not strong: Despite the relatively high research & development investment in emerging industries in Nantong, but the overall size is still small, the level of research & development and the results of the international advanced level compared with the transformation is still not a small gap. At present, Nantong emerging industries industrial output value of the highest new material industry is mainly concentrated in the manufacturing industry of the two primary forms of synthetic rubber and synthetic resin, plastic, from the perspective of the global value Chain, the two industry is the main resources or labor intensive industry, high-end link has not become output, creating benefits of the protagonist, the reason is mainly due to the lack of core technology. In addition, the independent innovation ability of Nantong emerging industry technology innovation is not strong enough, low conversion rate, key technology, many areas of the core equipment and materials still rely on imports, such as: the key technology of large-scale high-end deep-sea engineering equipment has not yet fully grasp, ocean communication, navigation and other ancillary products with high technology and high added value they need to be imported from abroad. [7]

2.2 Related countermeasures

Although the Group believes that current development of emerging industries in Nantong has initially formed a certain scale, with a certain development conditions, which laid a good foundation for the sustainable development of the industry, but Nantong emerging industry in the development process, there are also some unavoidable problem: the overall size of the industry is still far behind the developed regions of South of Jiangsu; industry accounted for within the industry, "should be good, playing loud" leading enterprises and products is not much, the industrial development has not yet formed the local characteristics of industrial development; concentration and concentration is at a low level, the lack of scientific planning and layout of industrial chain; industry in the development of the core technology, independent innovation ability is still weak, the technological innovation support system should be improved etc.. Therefore, in the future the cultivation and development of emerging industries in Nantong in the process, be sure to set up the international vision and strategic thinking, focus

MSETEE 2017 IOP Publishing

doi:10.1088/1755-1315/81/1/012108

IOP Conf. Series: Earth and Environmental Science 81 (2017) 012108

on the sustainable development of economy and society in Nantong, high position, bold plan, intensify scientific deployment and planning arrangements, work support and protection to human, financial and material resources and other related elements, encourage and promote independent innovation, accelerate the development of leading enterprises, to further improve the industrial chain, the formation of industrial agglomeration and local characteristics as soon as possible, to achieve the overall strength of Nantong's economy and promote leapfrog development. [8] [9][10]

2.2.1 Careful planning strategy, clear development ideas: To optimize the industrial structure and change the mode of development of Nantong as a leading role in promoting emerging industries, strengthen the mechanism of the development of Nantong emerging industries, strengthen the development of emerging industries and docking in Nantong Province, the national strategic emerging industry planning and policy. According to the development of traditional industries, expand the dominant industries, foster new industries, the development of ideas for each type of industry to come up with targeted development plans. At present, Nantong can be the total size of the emerging industry ranked the top three new material industry, Bio Industry and high-end equipment manufacturing industry as a key development object, further "bigger and stronger", and strive to enhance the scale of the industry as soon as possible to form local characteristics; for energy-saving environmental protection industry, new energy industry and the emerging information technology industry has been good based on the industry, to improve the ability of independent innovation, promote the extension of the whole industry Ghain, to promote the "brilliant novel"; for new energy vehicles, the fledgling industry, it is urgent to introduce the relevant enterprises to expand the scale, improve the overall operation quality of emerging industries. [11] [12]

2.2.2 Improve the level of agglomeration and achieve scale effect: Nantong emerging industries with the national strategic emerging industry standards, and to the global economy and society in Nantong and long-term development have a significant leading role; to play a "significant leading role" to improve the level of industrial agglomeration, establish the advantage of scale; in Nantong within the scope of efforts to improve the degree of industrial clustering, cluster matching the gradient of cooperation, coordination of industrial spatial distribution and functional areas, to eliminate inter regional industrial restructuring phenomenon. Dig the park (zone) development space, and make the bearing of the same industry park (zone) between the implementation of energy resource sharing, mutual cooperation, to maximize the advantages of scale; and to cultivate leading enterprises, build Nantong emerging industry brand; even stronger at the same time support and nurture local big business, the introduction of 5-10 industry leading enterprises in Nantong, each industry leading enterprises play an exemplary and leading role in supporting the integration of local industrial enterprises, attracting a number of supporting enterprises settled, construction of new industrial base construction, industrial development system, formed a complete industrial chain, to achieve economies of scale. [13]

2.2.3 Encouraging independent innovation, focusing on talent construction: To clear the main position of independent innovation, encourage enterprises to increase investment in technology development funds. Take a variety of preferential policies to attract by universities and scientific research institutes and large enterprises in Nantong to establish a scientific research base, test base, achievement transformation base, and encourage the development of joint enterprises and their technological innovation, establish long-term cooperative relations research. To vigorously promote technological innovation, encourage enterprises to introduce advanced scientific and technological achievements and major equipment, the use of information technology to transform traditional industries, promote industrial upgrading. At the same time, we should pay more attention to the construction of talents and activate the eternal power of new industries. Encourage all kinds of talents in Nantong emerging industries entrepreneurial innovation; combined with the major industrial innovation development projects cultivating leading entrepreneurs with the vision of globalization, sustainable innovation ability; cooperation mechanism construction of school enterprise training talents, encourage college (especially the Nantong area colleges and universities around the country) the key areas of strategic emerging industries, strengthen discipline the construction and cultivation of talents. [14]

IOP Conf. Series: Earth and Environmental Science 81 (2017) 012108

doi:10.1088/1755-1315/81/1/012108

2.2.4 Accelerate industrial restructuring, expansion of high-end technology: Nantong should adhere to the optimization and upgrading of the industry as the main direction, increase the integration of industrialization and information technology to promote efforts to build a modern industrial system. To speed up the traditional industry technology upgrade, the use of information technology and intelligent technology, improve the traditional industrial technology and equipment informatization and modernization level; accelerate high-end expansion of emerging industries in Nantong, speeding up the cultivation and development of emerging industries in Nantong has begun to take shape. At the same time, adhere to the intensive development as an important means of economic transformation and upgrading, to build a platform with Nantong characteristics, give full play to the advantages of Nantong along the coast, and strive to create two along a central area. [15]

2.2.5 Transformation of government functions to seek harmonious development: To effectively change the functions of the government, to a higher starting point to change and enhance the concept of government public management. From the reform experience of the governments of the world advanced, although they are not the same path of reform, but its goal is through the pursuit of "3E" (Economy, Efficiency, Effectiveness, economic benefit and efficiency) aim to realize the "reinventing government" function, reference and learn from the advanced experience of reform of the world the government, government functions positioning major shift to service-oriented, limited and law, to further clarify the helm and basic position not oarsmen. From the transformation of government functions, Nantong needs to establish and perfect the new institutional environment and security mechanism: one is to form a regulatory mechanism play the basic role of market allocation of resources, improve the market economic system, efforts to form a new government and corporations, government relations, carefully established institutional framework of service-oriented government is two; adapt to the formation, and the level of economic development is to promote the coordinated development of social undertakings scientific management mechanism.^[16]

3 Conclusion

By the research for the overall situation on the development of emerging industries and important data in Nantong, we can clearly see the research value of "the development for new industries in Nantong". Thus, under the national strategy, of Nantong emerging industry development in the future, significant economic and social benefits, the extraordinary significance, but colleagues still need more efforts.

Acknowledgement

About the author: Li Zhongnian, male, Professor, research interests and direction: new energy power generation technology and electrical engineering intelligent technology.

This paper is supported by Nantong social science fund of Jiangsu province (Grant No. 2016BNT001).

References

- [1] Zhongnian LI, Tianying LI, Yan QIN, Lijuan ZHANG,Qin WANG. (2016). Research on the Development for Intelligent Equipment Manufacturing Industry concerning New Energy Resources Power Generation in Nantong China, Have the Whole World in View.M.Proc.of IFEESM '2016). May, 307-310.
- [2] Zhongnian LI, YunfengYUE, Guoliang CHEN. (2012). Construction & Operation on the Training Base for Application Technology about New EnergyResuorce.J.Advanced Materials Research. June, 2012, 2895-2898.
- [3] Jie LI, Cunsu WANG & Linli HUANG.(2015). analysis on the status of industrial technology innovation in major countries in the world during.2015. J. China Economic and trade. June, 2015, 95-98.
- [4] Min ZHU.(2015). Analysis on the status quo and development trends aim at China's strategic emerging industries. J. Chinese trade daokan June. 2015, 38-44.

- [5] Zhongnian LI and Lei ZHOU . (2015).Research & Development on the MPPT Intelligent Control Device for WPVC Pwoer Generation Syste .J. Advances in Engineering Research, May, 2015, 1-5.
- [6] Zhongnian LI and Lei ZHOU.(2013).Research on Theory Method and Key Technology for Electric Corona Purifying Tail Gas of Automobile.J. Mechatronics and Industria Informatics, June, 2013,1637-1640.
- [7] Zhongnian LI and Lei ZHOU.(2013).Research on the Fault Diagnosis System for ICM.J. Advances in Manufacturing Science and Engineering, June ,2013,2055-2058.
- [8] Zhongnian LI and Lei ZHOU.(2012).Research on Fault Diagnosis Method for ECS-CNCL Based on Rough Set.M. Proc.of IEEE ICNC-FSKD'12, May,2012,254-256.
- [9] Zhongnian LI, Tianying LI, Yan QIN. (2015). Research on the Control Method with Quick Charging for Lithium-Yttrium Battery. M.Proc.of ICSEEP'2015, August, 2015, 458-463.
- [10] Zhongnian LI and Lei ZHOU.(2010). A New Method on the Training FNN.M.Proc.of IEEE FCC, SEP., 2010,195-198.
- [11] ZhongnianLI & BaoguoWANG.(2010).Research and Realization of PADS Optimum Reception Patter.M.Proc.of IEEE iATP, AUG.,2010,195-198.
- [12] Zhongnian LI, Jiaqi ZHOU, Chao HE.(2007). Fault Diagnosis of the ELVE Intelligent Elec-Trical Control System.M.Proc.of ICMEI'2007, AUG., 2007, 643-646.
- [13] Zhongnian LI, Wei, HOU, Baoguo WANG. (2008). Research on the N²C² Mode. M. Proc. of WICOM 2008, AUG., 2008, 16-20.
- [14] Zhongnian LI, Xin ZHOU, Yonghong CHEN.(2009). Research for the Intelligent RMB Sorter Based on ANN.[M].Proc.of ICEMI'09, Oct., 2009, 99-102.
- [15] Zhongnian LI and Lei ZHOU.(2014).Research on Conditioning and Application for the F²N². J. Advanced Materials Research.Oct.2014, 2087-2090
- [16] Zhongnian LI,Kui HUANG,Changliang CHEN. (2008).Research and Development of Intelligent Coiling Machine Fault Diagnosis System Basedon WNN.[M]. Proc. of ISTAI'2008, AUG., 2008,13-16.