## 2.4 Proposed additional questions

Participants in the online survey used the opportunity and proposed their own questions and arguments in large extent. Altogether they proposed 718 questions and 853 arguments. Looking at the graph in Figure 6 the most popular themes/needs also exhibit the highest numbers of proposed questions and arguments. However, the most active in proposing questions and arguments were respondents to the theme/need Unity and Cohesion with the ratios between the number proposed questions and the number of respondents (Quest/Resp) 0.15 and between the number proposed arguments and the number of respondents (Arg/Resp) 0.23. More we present in Table 7. We can regard the intensity in proposing questions and arguments as a certain measure of the involvement of the respondents in the debate on the research programmes. From these perspective four themes/needs (Sustainable Energy, Strengths-Based Education and Experiential Learning , Personal Development and Life-Long Processes) exhibit substantial lower involvement than the other themes/needs.

	Quest/Resp	Arg/Resp
Sustainable Economy	0.10	0.13
Equality	0.14	0.17
Strengths-Based Education and Experiential		
Learning	0.06	0.08
Citizenship Awareness and Participation	0.12	0.13
Harmony with Nature	0.11	0.15
Holistic Health	0.10	0.10
Personal Development	0.07	0.08
Sustainable Energy	0.05	0.09
Unity and Cohesion	0.15	0.23
Sustainable Food	0.13	0.18
Green Habitats	0.12	0.14
Life-Long Processes	0.09	0.07

## Table 7 Intensity of proposing questions and arguments by themes/needs

Green highlighted – the highest intensity (activity) in proposing questions and arguments.

In ANNEX III, we present details on the activity in proposing questions and arguments structured by programmes.

The number of proposed questions and arguments was large and it was clear that a number of them will be similar each to other or even only modifications of the initial questions and arguments. Five experts of the Technology Centre were asked to go through the proposed questions and arguments and either to add them to the initial ones or to cluster them in a rather limited number of new/additional questions and arguments. The experts regarded 409 (57%) proposed questions and 573 proposed arguments as only modifications of the initial questions and arguments. The rest i.e. 309 questions and 330 arguments were clustered in 68 and 76 additional questions and arguments respectively. More details on clustering are provided in APPENDIX I and II.

The resulting new questions and arguments are listed in Table 8. This table consists of 12 sub-tables where each refers to one need (theme). Colours of sub-tables correspond to Figure 3.

Table 8 The list of new Questions and Argumen	ts (12 sub tables according to themes/needs)

Need	Programme	New Question	New Argument
	Consume less, enjoy more	How to improve the wellfare?	Positive effects for nature
		How to motivate companies for sustainable and consumer-friendly production	Global consequences
		How we accomodate the purchasing and consumer behaviour on the state level?	
	•	How to implement fair and sustainable economic models?	New production models will emerge
	Production awareness	•	This should go hand in hand with a more personalised education
Sustainable		•	Consumer behaviour will change
Economy	From Wall Street to	How to foster social function of the market?	Transformation of global /international/ aspects of the market is difficult.
	Main Street	How to promote local markets?	Financial market should be regulated
	•	How to adopt education system with regard to the lifelong learning models?	To foster wellbeing and other social needs
	Learning for society	How can economy foster lifelong learning processes?	Complex educatrion and common knowledge system
		•	A lot of aspects still need to be considered.

Need	Programme	New Question	New Argument
	Balanced work-life	How to secure equality and good working conditions at workplace?	Labor market has to change to be more flexible and reflect needs of people and society.
	model	What are value and ethical aspects of work?	
	•	What cause and what impact social economy can have?	It is necessary to change financial balance in society
	Social Economy	•	It is important to consider the role and the position of individuals in social economy
Equality	lity Empowering diversity in	What are potentional risks of diversity in the community and how to prevent them?	Searching possibilities how to create diversity in communities
		How can diversity be beneficial?	
	ec Ho Digital Inclusion ec Ho	How can new digital technologies improve the educational system towards inclusion?	Not everyone has resources to access and be part of the process of digitalisation.
		How can digital inclusion contribute to the bigger equality in society?	Digitalisation can have an effect on human environment and health.
		How can digital inclusion have an affect on the productivitity?	•

Need	Programme	New Question	New Argument
	Rethinking (the new) "job market needs"	0	There is a need to consider the job market and its future prospects from a larger complexity Life-long learning seems to be an important tool in this sense, too.
Strengths-Based Education and Experiential	F Educational ecosystem as a driver of social innovation and local development	How to explore ways of motivation to be educated? What are the ways of developing new measurement and standard models for education?	In order to implement a suitable mode of educational ecosystem, transfer or best practice models should be explored 0
Learning	Design literacy and life skills for all	What are the ways to educate teachers or professionals to educate in the updated manner?	
	SWOT (Strengths, Weaknesses, Opportunities, Threats) Technological empowerment	How do we promote the acceptance of technologies by civil society? What are the ways of increasing the complexity of intelligence in order to bring in to higher levels?	We need to go beyond and reinvent new ways of producing knowledge, reintroduce creativity in the process and make it an intelligent collective There is a danger of exclusion of certain groups in the society, as well as inability to exist without technologies for certain groups in the society

Need	Programme	New Question	New Argument
	Empowered citizens	What is the impact of participation in decision making and how to promote its results?	Digitalisation can lead to social exclusion.
Citizanshin	The transparency toolbox	What output/data should have citizens from participation processes? What are influences on decision making processes?	•
Citizenship Awareness and Participation	Data for all – Share the power of data.	How should participative processes look like?	This helps against misuse and misrepresenting of data. It enables fully exploit the power of data in education and business.
	, "Snakes and Ladders". Connecting scales of issues and actors.	How to empower marginalized individuals?	•

Need	Programme	New Question	New Argument
		How can people be supported to switch to more	Feasibily of transforming technologies in this way
		environmentally friendly practices?	is complicated.
	Top trending: at one	How does consideration of nature in economy	Education, training and ethics framing the
	with nature	contribute to sustainable growth?	technology development is important.
		What kind of environmental education is needed	
		for the switch to sustainability?	
		What kind of governance of society, organization	
		of society for harmony with nature and	
		sustainable development?	
		Which topics, questions should science explore to	
		support switch to nature-respecting living?	
		How to educate for the change of attitudes and	Education and lifelong learning activities towards
	Ecological future	behaviours, sustainability and future-thinking?	sustainability
	education	How do we create a society where citizens care	General knowledge dissemination needs to be
		about the future of the planet?	improved.
Harmony with			It has serious implementation limits.
Nature	Transforming	How to make economy and production both more	Transforming technology feasibility problems
		sustainable and economically viable?	
	technologies for	How do we demonstrate the value of sustainable	Education, trainning and ethics framing the
	planet and people	technology development to society?	technology development
		How can we develop, assess and implement	
		technologies to prevent negative side effects?	
		How to promote (sustainable) development of	This could improve the quality of life in both urba
		rural areas and make the rural life more attractive	and rural areas (e.g. green areas, quality food,
		taking into account the challenges of the 21th century?	health, jobs, education).
	Urban-rural	What are further wider society challenges to be	The symbiosis can significantly improve quality of
	symbiosis	considered for urban-rural symbiosis?	living spaces and foster adoption of sustainable development.
			How to break the influence of the capital of agro-
			food companies, supermarkets and supply chains
			while promoting retail and direct sales?

Need	Programme	New Question	New Argument
	Access to equal and holistic health services and	How to design an education for healthcare professionals to offer a holistic approach to patients?	Standardization and harmonisation will help to assure equal access to health care.
	resources for all citizens	How to develop a positive culture encouraging healthy lifestyles?	Health as a significant economic factor should be involved in decision-making in other sectors.
		How to introduce and support the model of "integrative medicine" in the healthcare practice?	This will enable further improvements in healthcare system and policy.
	Quantitative person- centred health	How to increase citizen awareness of health prevention?	Healthcare costs can be reduced.
Holistic Health		What models of "personalized healthcare" can minimize/prevent its negative effects?	The programme fails to reflect the key social determinants - personal and collective mentality and lifestyles.
		What are the individual options/choices to be adressed to encourage citizens towards the adoption of balanced and healthy lifestyles?	This will make us more resilient society in the future.
	Finding a balance in a fast-paced life	What are the system wide changes needed to achieve a balanced (work-life) lifestyle?	Individual decision and choice are more important than research and regulation.
		How to involve employers more in work-life balance issues/persuade them that it is worth it?	
	Promoting well- being through relating	How important are well-being and human relationships in the hierarchy of human values?	Care for a friendly environment could be an advantage of Europe over other global regions.
	environments	r	<b>r</b>

Need	Programme	New Question	New Argument
	(Business) Models for balancing time	How can new business models improve the well- being of the individual and society?	Testing and experience needed
	-	, How to foster engagement and motivation?	Ethical aspect for individual and society
Personal	Personal and organisational choice management	•	•
Development			
	Technology as a means of well- being	How can technology support social inclusion?	The technology must respect the society development
	, Meaningful research for society	What are the most relevant research topics for society?	Meaningful (relevant) research criteria

Need Programme New Question New Argument 0 The involvement of citizens in plans that target the Beyond energy reduction of consumption will promote a greater efficiency: reduce sense of helonging equality responsibility and consumption The potential for reduction seems much higher through structural than for energy efficiency. design and behaviour A creation of the energy self-sufficient communities will be enabled. Enabling a market for energy , It creates an incentive for the application of prosumers Sustainable Energy technologies. , How to end the use of fossil fuels: oil, shale gas, It is urgent to find locally managed, decentralised, oil sands extraction, etc.? non-polluting, fair and democratic energy solutions. Smart energy Enabling new distributed energy and storge to governance participate in existing energy markets will bring benefits to all. How to store advantageously spare energy? Interconnected open systems ۲ ,

Need	Programme	New Question	New Argument
	Alternative	What are alternative economic models fostering sustainability and wellfare?	New alternative economic models can better answer big societal challenges.
	economic model	,	The current system is not working well.
	<b>-</b>	How to promote the role of education and family towards the inclusion?	It will support community infrastructure development
	Community building infrastructures	What are the conditions of inclusion/ exclusion in Europe?	It is important for succesful social policy and family integration
Unity and Cohesion	Evidence-based community building		Data collection is not trivial.
	-	What are the conditions for implentation of the universal basic income?	Pecreasing motivation to work
	Universal basic income – so no-one	How to cultivate society in respect of the financial literacy and consumption?	It can bring a lot of benefits to the society and economy
	is left behind	How to avoid risks of the implematation of the universal basic income?	It can cause variety of social problems.

Need	Programme	New Question	New Argument
		How can food be produced sustainably?	Responsible and healthy nutrition for all reduces the social costs in public health and increases the quality of life in a collective sense
	Good food research		Responsible and healthy nutrition for all reduces the social costs in public health and increases the quality of life in a collective sense Create ways to protect the seeds of any kind of "trademark". Recover the original seeds of the species of vegetables, fruits and cereals. A sustainable agriculture will allow to stop the soil impoverishment and deterioration process happening today Financially and locally accessible quality food for all is a basis of a healthy lifestyle and prevention.
			_
Sustainable Food	Responsible use of land	How to manage the sustainable utilization of ecoefficiency and resilience?	A sustainable agriculture will allow to stop the soil impoverishment and deterioration process
	Good quality food for all	What food production system is needed for quality food?	
	F Evolving food culture in growing cities	How can we define what is the sustainable food?	existence of humanity is in question because of

Need	Programme	New Question	New Argument
	Moving together	How can we integrate collective transports with use of renewable energy?	There is a need to develop a transformed network and system of transportation
	(more collective transports)	How can we integrate bicycle transport?	Complex approach encompassing also social, economic or environmental aspects should be taken into account as well.
	Freedom to choose where we live	How do we relate development in transportation to the protection of natural environment and land use?	An important role will be attributed to transport of people, goods and services The rise of quality of life is expected
Green Habitats		How to manage also social aspects of distributed living?	Distributed living brings about significant threats
	Distributed living	How to adapt institutional and legislative framework?	
	-	How to ensure an efficient implementation of good practices?	This issue has a lot of drawbacks and is actually undesirable to be reached
	The bigger (the cities) the better	What are the ways to design these new features into a city?	r
		How to manage social cohesion within sustainability?	•

Need	Programme	New Question	New Argument
Life-Long Processes	Deconstruction of age	0	It is important to have good and reliable information about all kind of products supporting life.
	science"		
	I'm empowered to lead my changes		
	ouenuubere	• • •	• • •