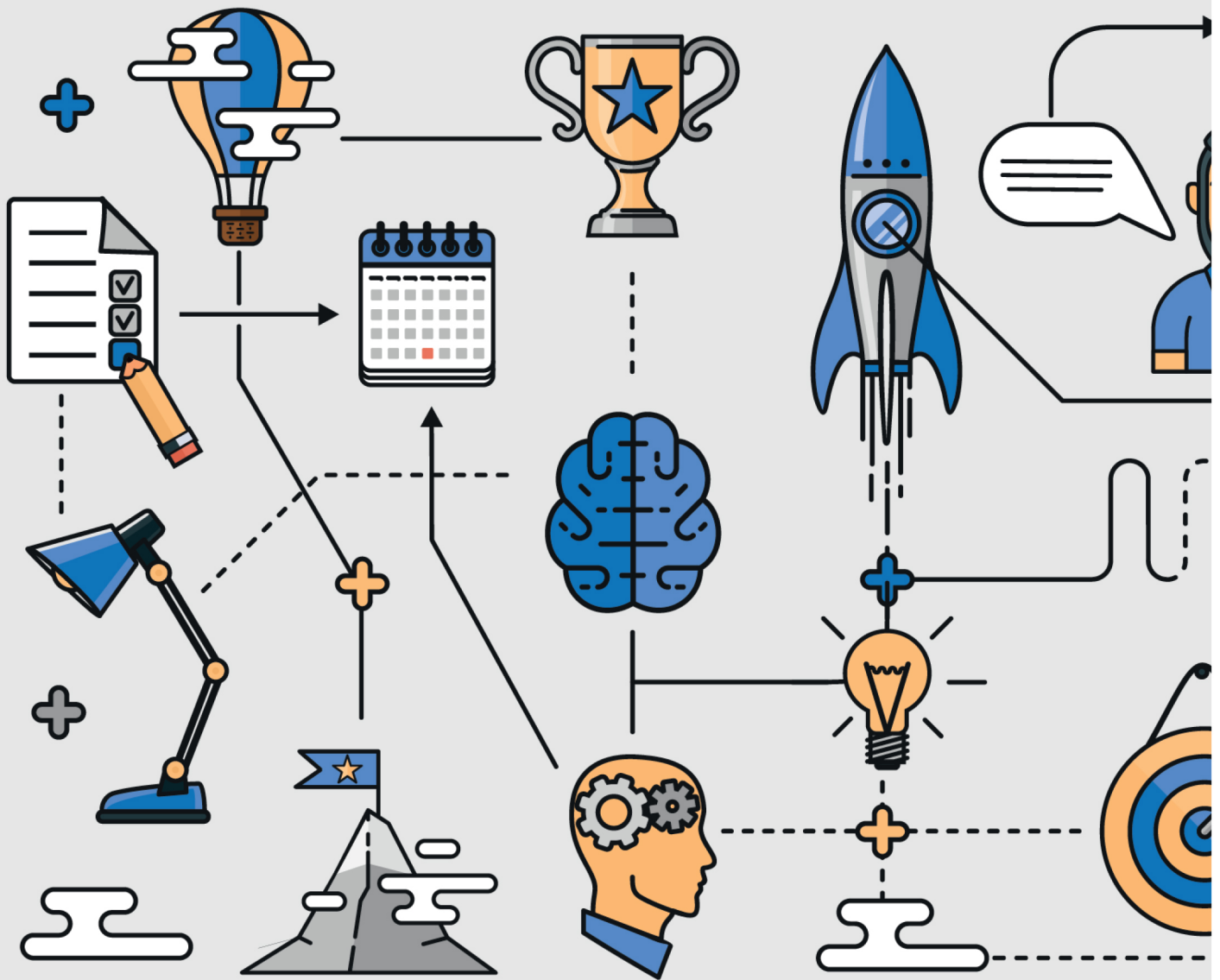


InnovatiVET



Delivering Vocational Education and Training from CoSpaces

A fresh perspective from UK
STEAMHouse, Birmingham, November 2019

For Industry Influencers, Policy Makers and Academics



1 quick cuppa
10 minutes reading

Partners



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Forward

Contributing to the InnovatiVET project, this article outlines advanced thinking on delivering vocational education and training from CoSpaces. InnovatiVET is an EU-funded research project on the future of vocational training. Its objective is to address the gap in innovation in the vocational teaching sector, and identify tools to promote learners' employability. Research partners in five countries; UK, Italy, Slovenia, Finland and Denmark are evidence-gathering for the further development of tools, methodologies and VET sector educators, trainers and stakeholders. Building on key findings from earlier InnovatiVET work packages (Intellectual Outputs 1, 2, 3 and 4), this report summarises thinking facilitated at the UK dissemination event. CoSpace Hosts, Industry Influencers, and other participants met at STEAMHouse, Birmingham, to brainstorm on how they could better apply the findings from the InnovatiVET project to deliver VET from CoSpaces. The brainstorm used the Whether System™ to broaden perspective for fresh insight and future anticipation.

Abstract

CoSpaces play a key role in the economic prosperity and constructive health of communities in cities, now and increasingly in the future. There is much interest and real value in delivering VET from CoSpaces. Activity happens already, often informally, with skills, experience and creativity transferred through peer-to-peer connection and project-led learning. New thinking and further collaboration is required to sustainably standardize and successfully deliver accredited VET from CoSpaces - locally, nationally and globally. People and access to learning are the priority. Funding is critical to survival with local councils at city level best placed to support. Sharing skills and space in a digitally connected community that includes academia and industry, advances the mix and improves the delivery of VET in CoSpaces.

Definitions

VET - Vocational Education and Training – teaching and study through activity, emphasizing attributing professional adequacy to skills and knowledge required for a particular job function or a trade.

CoSpace - collaborative, constructive environments supporting arts, innovation, employability and skills training including maker spaces, fablabs, coworking spaces, hackspaces and other co-working places.

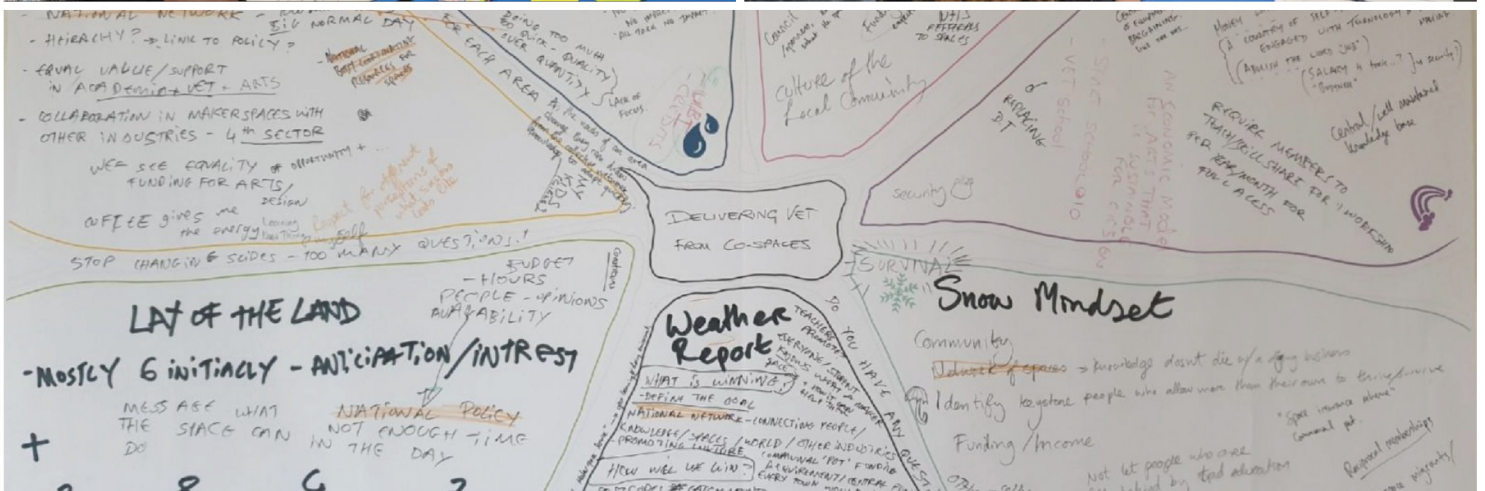
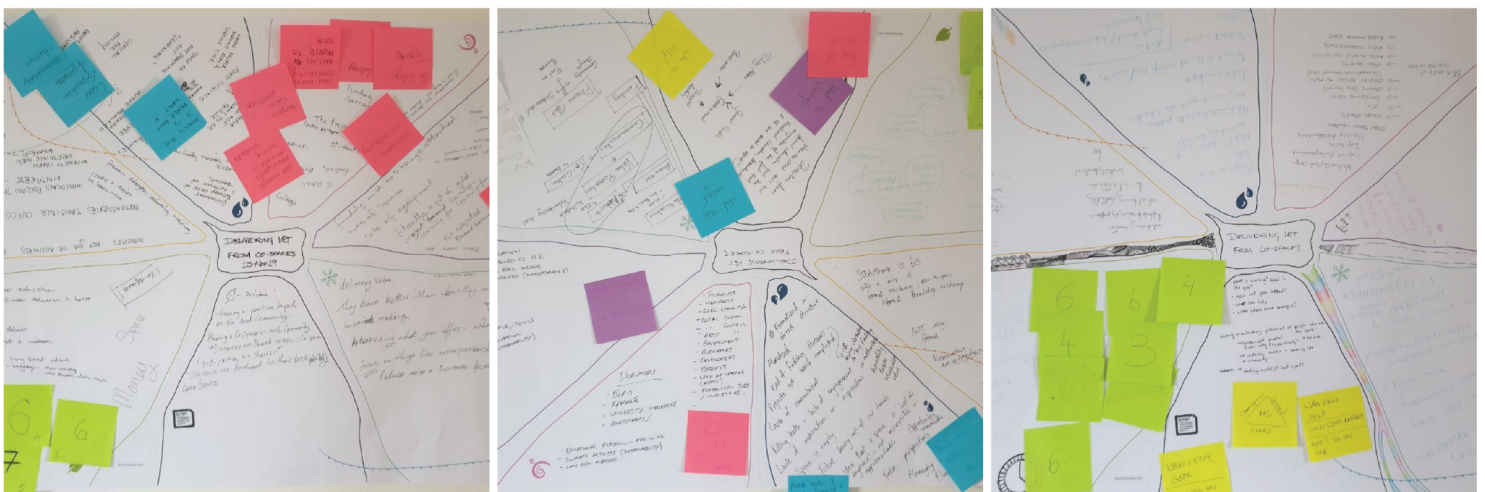
Host - the leader, senior executor or managing director of a CoSpace.

Peers - people active in a CoSpace.

New Knowledge - insight and understanding of innovation or new technology.

New Skill - the ability to use and teach new knowledge.

Delivery



“CoSpace in each community

At the forefront of new technology, agile and able to pivot as innovation evolves, CoSpaces in 2020, in the UK, are where Working Men's Clubs blend with Women's Institutes and Youth Clubs, to supersede Business Links and bypass Job Centres as economic and engaging adult and youth progress centres, delivering practical projects.

What are CoSpaces?

- ✓ CoSpaces are strong support centres for small business and self-employment.
- ✓ CoSpaces are accessible, diverse communities of constructive people.
- ✓ CoSpaces are connection points for individuals, education and industry.
- ✓ CoSpaces are filters, funnels and peer-to-peer networks for self-development.
- ✓ CoSpaces are flexible collaborators developing new knowledge.
- ✓ CoSpaces are think tanks addressing pressing problems.
- ✓ CoSpaces are hotbeds of innovation.
- ✓ CoSpaces are accelerators of new business.
- ✓ CoSpaces are high-value job creators.
- ✓ CoSpaces are show rooms of new technology.
- ✓ CoSpaces are libraries of new knowledge.
- ✓ CoSpaces are petri dishes for the future of work.

“Widening access and lowering risk

A CoSpace should exist in every community, with ease of access to people of all ages and diverse backgrounds, enabling anyone with interest to evolve their ideas. Cultures, skills and budgets differ from CoSpace to CoSpace and disparity delivering VET in CoSpaces depends on requirements and resources. Taping the potential between funding and delivery raises dichotomies such as how to 'organise art', 'industrialise innovation' or 'make self-learning mandatory'. We're saying we're open to all but we don't really want hobbyists. This mix of messages supports the diverse nature and needs of the community, requiring further case study.

Talking Points



QUICK TIP



Standardizing delivering VET from CoSpaces

People of all ages want and need further education. In CoSpaces, the knowledge and skills of peers naturally escalate from entry level as they greater engage. Standardized and recognized credits for the skills and knowledge acquired through participation is valued by the individual, the community, industry and the economy when accepted as higher education and aligned to academic qualification.



QUICK TIP

Recognize and accredit skills

Desire for self-led learning

Ultimately this is about supplementing the study of 'Design and Technology' with the education of 'Innovation and Entrepreneurship' through vocational training. Standards bars must accommodate non-prescriptive, student-driven, flexible learning paths, trainers must act as connectors to other specialist sectors and accreditors must accept that innovative breakthroughs and tangible clients change intended outcomes.



QUICK TIP

Accommodate project-led learning

Accessing the latest and greatest technology

Barriers to entering CoSpaces need to be kept low with access including to new technology. Activity tends to be project-led. A filter and funnel platform could promote personal pathways towards professional qualification, connecting peers, sharing standards and circulating new knowledge, recycling resources, maximising mindsets and giving time to maintaining a pioneering approach in arts and engineering.



QUICK TIP

Create open access and a filtering progress

Collaborating to deliver VET from CoSpaces

Industry and academia need to work with CoSpaces to procure the skilled workers-of-the-future from the students-of-today. CoSpaces are fit for this purpose as new technology testers, early indicators of innovation, barometers on skill gaps and developers of new knowledge.



QUICK TIP

Work with CoSpaces to close skill gaps

Reciprocal relationships required.

As playgrounds for industrial research, schools for new product development and entry points for individuals into creative and constructive communities, CoSpaces are only as stable as their support. Peers are vital to creating and connecting the community.

- How can we help you?
- How can you help us too?



QUICK TIP

Concentrate on creating community

Identifying and incentivizing individuals.

Hosts of CoSpaces play key roles in their respective communities, allowing more than their own to survive and thrive. They condition the culture of a CoSpace, cultivating their unique corners of creativity. Hosts tend to rely on open source skill sharing, volunteering and knowledge transferring occurring between members, as ways to advance the skills of the group. Funding uncertainty and job insecurity make short-term thinking and non-aligned target ticking inevitable consumptions of time, taking peers away from their own learning. Joy for such jobs could fragment with frustration leading to anger and apathy, as disillusionment dampens passion, if the potential of a project is pulled before its long-term value can be proved.



QUICK TIP

Cultivate your own culture

Local Culture, National Network

Peer interest is to research and learn, working together on problems to understand the value they deliver, with the latest technology in their specialist sector. Delivering VET in CoSpaces is part of the accepted challenge. Nationally networking these key individuals and their CoSpace emerged as an obvious next step; enforcing buying power, extending reach of relevant skills and referral potential to accommodate more diverse peer pathways, producing more proven advances as people and ideas present as a united voice to communicate strong messages about CoSpaces.



QUICK TIP

Clarify your key messages.

Digital delivery

The influences of artificial intelligence, other innovation and education advances, denote the rapid-development of alternative delivery.



QUICK TIP

Link like-minds

Sustainable funding, shared learning

The full value of this project has yet to be proved. A lack of success is perceived as no progress or no change, no personal development and no professional growth, with stagnation leading to disintegration. Stored potential secures current progress but funding models remain largely unstable or unsustainable, long-term. Without homogenizing each environment – CoSpaces cultivate their own culture, retaining a unique personality in their specialist skill sector – a standardized, stable and sustainable funding model for CoSpaces could include public funding, tax breaks for stakeholders and a national, accredited, shared learning platform for VET delivery, this study idealizes.



QUICK TIP

Share funding strategy

Cities and Councils

It is suggested that core funding should come directly from cities and local councils. Funding could also come from the Art council or other education funding agencies. Funding models should be supported by Corporate Social Responsibility programs with trading links to industry and academia to further supplement peer fees and cover long-term running costs.



QUICK TIP

Collaborate at local levels

Communal Pots

The concept of a CoSpace being funded by a mix of contributions from the community including the local council, local industry, outsourced research and development, outreach academic facility, grants, lease or sale of equipment, training, use of space and membership fees, is that of a communal pot. Each communal pot funds a single CoSpace from a mix of income streams. As a further idea, CoSpaces considered the national network, to insure them through high-risk times.



QUICK TIP

Mix it up!

The Tech Effect

Following the Phoenix Model, CoSpaces must continue to cut down their own creations to maintain relevancy, innovating with the latest technology, reinventing as this embeds. This keeps a CoSpace competitive; best placed to train others in what's not been invented yet.



QUICK TIP

Embrace rapid change

Are people's needs being met?

People's progress and unlocking their potential is the purpose of a CoSpace. Public perception influences local engagement. Awareness appears to remain low. Communicating clear messages about membership advantages, proof as case studies, to the city and its surrounding communities is of prime importance to attracting more problems, projects and people to a CoSpace and into the CoSpace national network. Delivering value as engaged, active citizens, innovative solutions, accredited and upskilled workers, new jobs, new knowledge, new technology, creative and constructive outputs and growing businesses, secures future support.



QUICK TIP

Progress at your own pace

“Respect and credit outcomes as goals we give ourselves.”

In the context of employability, value is extracted as its definition is designed: Students or peers present problems, trainers or hosts work with peers to support the evolution of their best solution. For a fee, the project is packaged and pitched to academia for evaluation and accreditation. For profit or purpose, the project is pitched to the market. Both pathways may be equally uniquely pursued. Industry is encouraged to sponsor accreditation by presenting project problems in exchange for insight on ideas whilst CoSpaces close education-jobs gaps by maintaining currency in the community.



QUICK TIP

Define, design and deliver value to your community.



Next Step Actions



different places, different people, different problems, different projects

CoSpaces

Reduce noise and increase focus,
rationalize what you offer and
communicate a clear message.

What does your CoSpace specialise in?
What is the culture of your community?
What problems are you solving?
Who can partner on these projects?
How do you communicate messages?
What case-studies prove your point?

Industry

CoSpaces are ideal showrooms for your
latest and greatest technology. Find new
potential, recognise the accreditation and
explore alternative pathways to new skills
and insight.

Are you aware of your local CoSpace?
Are you developing anything new?
What talent do you need to tap into?
What technology do you want to test?

Academia

CoSpaces are non-competitive potential
collaboration partners, closing gaps in
incumbent infrastructure and offering
alternative paths to employability.

Are you open to better working together to,
improve, standardize and accredit
skill-sharing and self-led learning -
delivering VET from CoSpaces?

Governance

BREXIT is seen to be causing a stalemate in
the delivery of VET in CoSpaces.

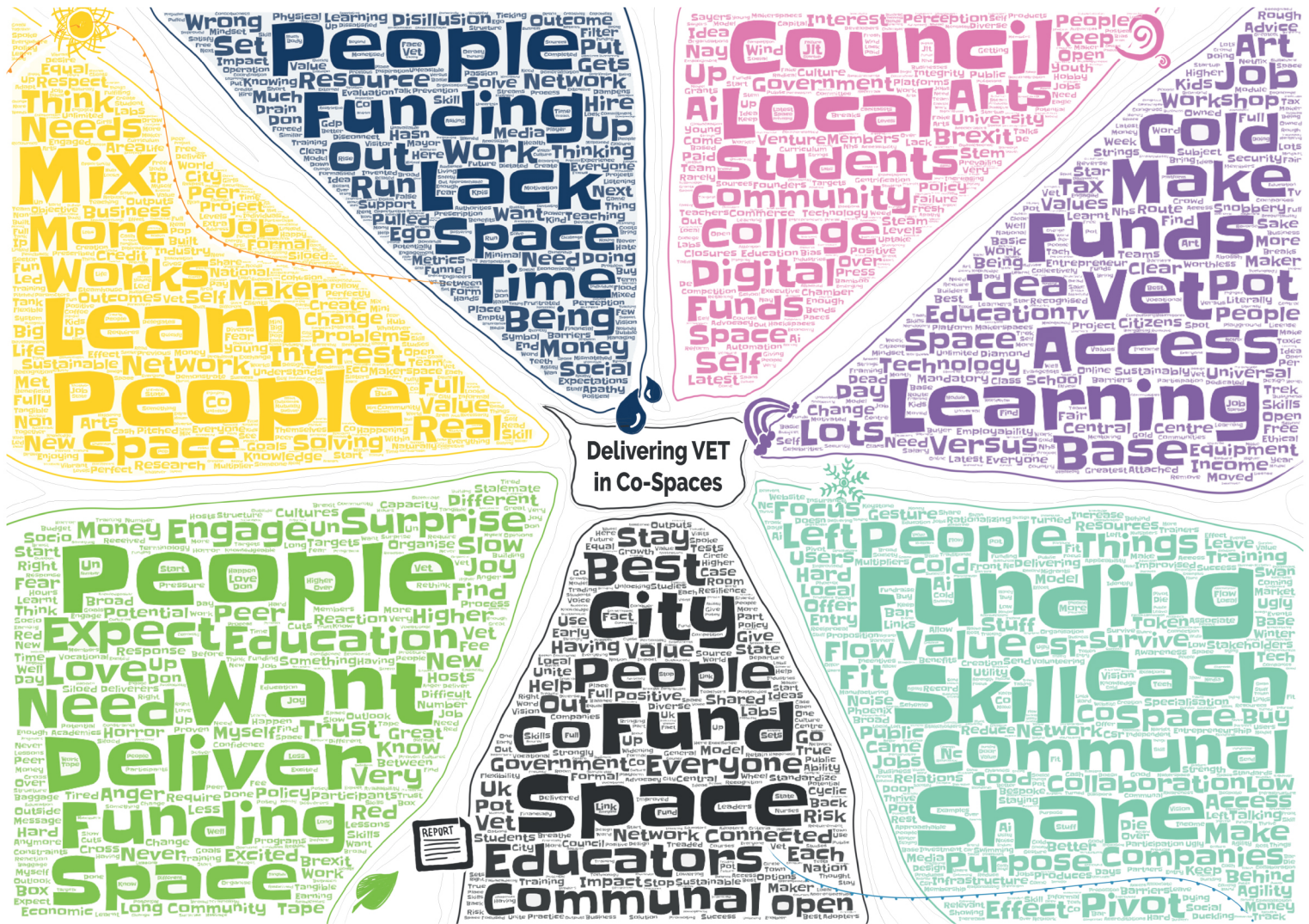
Should national standards apply?
Could policy or a platform perform?
Could local funding be allocated?
Could tax breaks be offered?



Brainstorm Outcomes



Brainstorm Outcomes with the Whether System™



The Whether System™ is a critical and creative thinking tool designed to promote participants employability with fresh thinking. With the Whether System™, participants considered delivering VET from CoSpaces using 7 different perspectives deriving their meaning from metaphors of the weather. Issues underlying individual sentiments, thoughts and ideas were combined to create the collaborative conclusions in this report.



Lay of the Land
Objective, emotive, current perspective



Sun Mindset
Optimistic, energetic, bright cheerful outlook



Rain Mindset
Pessimistic, depressive, problem orientated outlook



Wind Mindset
External influence, local and prevailing



Rainbow
Vividly imaginative, fantastical thoughts



Snow Mindset
Prioritizing survival in cold conditions



Whether Report
Summarizing thinking with evolved ideas

Brainstorm Outcomes with the Whether System™

Lay of the Land mindset

Never know what to expect, excited about potential something new, joy participants, surprise myself, anger, reaction response, great to deliver, horror to organise, find funding people, funding, capacity of space, policy and red-tape, engagement, cultures, socio-economic BREXIT stalemate.

Love to deliver education need trust between deliverers and hosts, very difficult to deliver and would require targets, very broad outlook, baggage, terminology, who delivers what is right, space money .

How does higher education work with VET; structure and programs, number of members who engage, tangible differences, long slow process, confidence, what can happen, what lessons can be learnt, trust from start, academics don't like change, UN is too slow, vocational training is not as fee-earning as higher education.

Money constraints, fear of not having all the skills, building up a community with knowledgeable people is hard, peer-to-peer is less pressure.

Want to, people want, proven want more, funding cuts, need to think outside the box, rethink before do, where it is needed, siloed.

Message what the space can do, do not want to do it anymore, tired, want it just to be done, surprised by the people and their goals, the community cross over of different people, expectation, what if it's not well received, love my job, budget, hours, people, opinions, availability, not enough time in the day.



Sun mindset

Everyone understands the goals and objective, non-siloed thinking happening naturally, real outputs and needs met, pitched perfectly, young people enjoying and engaged fully, everything works as a perfect team, solving real world problems. life changing for themselves, multiplier effect, more labs open more businesses start, community built with value and cohesion, unlimited money, sustainable.

Outcomes not job or business but skill share respect, demonstrate tangible outcomes, individuals follow their project and interest, not prescribed, no fear to learn something new, whatever t-levels, previous delegates deliver training, create a desire to learn more, requires happy people, clients space, mix of people.

STEAMhouse is full with a mix of formal teaching, peer-to-peer, informal knowledge exchange, co-creation is full and vibrant, working together to create with recognition, IP, credit, eco-system. Not only formal, researchers are everywhere, time in makerspace is recognized and credited within student studies not just extra-curriculum mix of people recognised not necessarily formalised, flexible learning, not working to someone else's parameters, diverse mix of people, read this.

Industrialising innovation, think tank for solving big problems, self-led learning, self-fulfilling, fun and sustainable, mutually beneficial, free, positive feedback, interaction, interest, working on own interesting project, cash.

Hub and spoke, mini-maker spaces, pop-up maker spaces, maker bus, industry research and development, partnerships, city state, city sisters.

More conversation, job and pay security, national network, hierarchy linked to policy, equal value, support in academia, VET, Arts, collaboration in makerspaces with other industries – 4th-sector, we see equality of opportunity and funding for arts and design, coffee gives me the energy, learning new things myself, respect for different perceptions of what success looks like, national body coordinating resources for spaces, network to address needs for each area, as the needs of an area change they can draw from the collective network, knowledge to adapt quickly, my kids, girls.



Rain mindset

Ego, social media, physical space, apathy, resource drain, disillusioned and put people off, that hasn't worked - what next, people's perception of the people running it, barriers, evaluation not prescription, filter and funnel, set up and operation, prevention, from need not funding.

Disconnect between value of and outcome of training, money for 'X' but people don't want 'X', symbol for money, dampens passion, potentially minimal teaching experience, people do not want to be there, not invented here, form ticking, wrong people, wrong place, wrong time, mismatched skill or thing outcome, no listening, no learning, no mindset, could be not teaching but learning, mayor frustrated, visitor dissatisfied, economically infeasible, clear expectations of process.

Formalised or forced structure, monetised, end of funding streams, projects not being completed or being dictated to by funding or authorities, lack of commitment, pulling teeth, lack of engagement, lack of motivation or inspiration, space is empty, future being out of our hands, idea that a space is just for engineers, not accessible or approachable, opportunities unavailable, false perspectives, managing expectations, flood, mixed model of support, financial and people, political buy-in, benefits in kind, create a network of similar organisations, knowing what's out there, hate the player not the game.

Everyone can do it better, what I'm delivering will never satisfy demands, nobody wants to solve the problem everyone wants you to solve it for them, lack of ownership, too much to do, not enough time, capability, too broad a vision, closure, knowing your audience, who gets blamed, what are the consequences, fear and demoralisation

Funding, misplaced creativity, no coordination, no commercialisation, being precious, VET related, traditional thinking, living in a bubble, short term thinking, devalue, GDP down, disillusion, extensive networks, exploit power of network, improved planning, agility, challenge of retaining your individual makerspace culture in the face of homogenization

Pulled funding, time and resources, reliant on external sources, health and safety, bureaucracy, restrictive beyond protection, too many, too few people participating, asking people to work for free do-ocracy, shortcomings in getting the word out to bring people into the space. KPIs and reporting on meaningless metrics, working for the metrics, gentrification and rent costs rise, combating social prejudice, making and doing versus thinking, no staff to hire, lack of resources, wan or need to hire, run out of money, no change, stagnation, no.

impact, all talk no impact, doing too much too quickly, quality over quantity, lack of focus, universal basic income credits, body that can co-ordinate funding to support uncertain funding times for spaces, help set people up in business.



Wind mindset

STEM over STEAM, university, students, councils, youth, chamber of commerce, founders, community, nay-sayers, self-interest, BREXIT, automation AI, closures, perception of failure, platforms, competition, gentrification of an idea, positive advocacy.

College, T-levels, teachers, students, the press, public perception, in hackspaces the prevailing wind is that it's people's hobby, not enough makerspaces interested in young students, funding, curriculum, college, college targets, keeping products fresh, increasing accessibility, very diverse community, getting people to come.

Students, members, executive committee, local community, local council, arts council, government, businesses, developers, BREXIT, lack of uptake in arts, potential jobs, industries, bamboo bends but rarely breaks.

Venture capital organisations, digital entrepreneurs, digital talks, startup accelerators, other team members, maker spaces, venture capitalists, emerging technology, grants, government policy,

Brainstorm Outcomes with the Whether System™

demonstration of technology, open sources, need to have the latest, paid obsolescence, algorithmic bias, funds to keep up with the latest.

Local authorities, college, local government, universities, JLT work-based-learning, integrated digital worker paces, how do you weed out fake education, politicians.

Start-up culture, self-employment, digitization of the economy, globalization, political apathy, arts council, council mentality, openness, education about what the space does, funding requirements, expectations, de-industrialisation, Barclays, eagle labs, commercialised model, philanthropic giving, strings attached, retaining your integrity, radical social reform, shortening attention spans, NHS referrals to spaces, school policy, elections, culture of the local community.



Rainbow mindset

Funding accessible to everyone with an idea, access for all, mandatory centre, advice to all, access to space, not being moved on, clear route to employability, entrepreneur versus job.

Funding with no strings attached, lots of space, lots of equipment, literally a pot of gold. Project based learning, learning for learning for learning sake, not subject based learning, make more art, universal income, people do what they like and need, changed values, kids have learnt to work in teams, gold is worthless, star trek dead.

Free education, VET as valued as higher education, universal basic income, VET recognised makerspaces, find the diamond in the rough, communities of people, skills collectively owned, no barriers to participation, ethical making sustainably

4-day week, open online learning platform, unlimited funds, latest and greatest technology, tax breaks for learners.

Best educators who are also celebrities, reverse mentoring, playground for companies, bring in a crowd, dedicated spot on Netflix, ideas, business builders, evangelists, maker fair, VET day.

Change remove class snobbery and vocational snobbery, VET making as compulsory module, maker mindset framing, national workshop congress, central buyer of equipment bargaining like the NHS, TV license, workshop funding i.e. tax, money with accountability, a country of self-motivated citizens engaged with technology and doing, making, abolish the word job, salary is toxic versus security – busyness, central well maintained knowledge base, require members to teach skill share for 1 workshop per month or year for full access, an economic model for arts that is sustainable for citizens, startup school, VET school, replacing design technology, security pot of gold.



Snow mindset

Good infrastructure, cold, hard, cash, companies funding stuff CSR, not just token gesture, public relations talking to stakeholders, fit for purpose, specialisation, collaboration, agility, pivot, local buy in.

Delivering value, they leave better than when they came in, improvised making, rationalizing what you offer, what's most effective and produces money and survival, focus on things like entrepreneurship for people with no jobs, reduce noise and increase focus.

Participation, access, low barriers to entry, awareness, networks, skills, multipliers, volunteering model, value proposition, communication, co-creation, bespoke, funding, phoenix effect, community strength, independent funding, pivot on purpose, winter is coming but the ugly duckling turned into the swan, just keep swimming.

Funding, broad funding base, people and tech investment, staying relevant to market, who do you associate with, shared vision and values, partners, front door, approachable organisation, social media and website, informal skills share, incentives for sharing, benefits of training, showing examples of success and utility applicability

Track record, trainers, things that make things, design over manufacturing, links to the community, accreditations, AI, NC days, standards bar

Community, network of spaces, knowledge doesn't die with a dying business, identify keystone people who allow more than their own to thrive survive, funding, income, space insurance scheme, communal pot, reciprocal membership, makerspace migrants diaspora, not let people who are left behind by traditional education get left behind by us too, other spaces, collaborative events to fund raise, cash flow, channels of connection, skill sharing, resourcing other companies to send users to, accessibility to the rest of society, and training, skill resources for users, cash flow, skill sharing



Whether Report

Diverse options, stay open, resilience, staying true to values, strongly connected, outputs/ case studies, cyclic give back growth, government, people, companies, educators, everyone, Ideas – communication, network of labs, advocacy, early adopters, flexibility, room to breathe, go out to people having a positive impact on the local community, having a co-space in each community, success is shared across co-space and best practice is shared, students are delivered to their best ability, open source.

Departure from standardized tests and formal education but the recognition of the fact that vocational education, apprenticeships and higher education are treated as equal. Government, policy makers, business, thought leaders and the general public can help.

Unlocking potential of people who use the space, sustainable model financially, no start-stop, full circle, widening access and lowering risk, community, trading model at least in part, communication, vision, funds.

Best city VET training, impact, improved skills, sustainable VET solution, wheel and spoke, centre of excellence, training in everything (nurses), happiness, the nation state, city, not government by cities, the best city of the future, city focused positive competition bringing each other up.

National network connecting people, knowledge, spaces, world, other industries, promoting culture, communal pot, funding requirement, central fund every town would have one, postcodes catchments, link to councils and funding, connecting all the maker spaces in the UK, united voice to get the word out, formalize and standardize courses, outsourced design and technology, UK funded fabacademy, everyone here and more can help, teachers and students, council with the right people in place, everyone who visits a co-space, everyone who contributes, unite and conquer, applications to a central pot for stating a space, platform, enabler, funding criteria, who sets what value is, risk of homogeneity, retain personality, funding balance.

InnovatiVET project

Facilitated at the UK dissemination event, STEAMHouse, Birmingham, November 2019, the thinking in this brainstorm builds on key findings from InnovatiVET work packages. These Intellectual Outputs 1, 2, 3 and 4 may be found at the following web link: https://ec.europa.eu/programmes/erasmus-plus/sites/erasmusplus/files/files/resources/2017-strategic-partnerships-vet_en.pdf

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