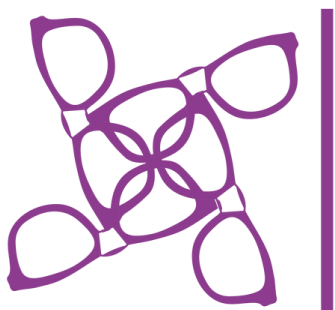




Molengeek International **HANDBOOK**



**Co-funded by
the European Union**

Contents

Chapter 1 – Understanding the MolenGeek Model.....	12
1.1 Mission and Core Values.....	12
1.2 Why Local Tech Ecosystems Matter.....	12
1.3 Origins of the MolenGeek Model.....	13
1.4 Achievements and Impact.....	14
1.5 The Erasmus+ Project and the Purpose of this Handbook.....	14
Conclusion.....	15
Chapter 2 – Laying the Groundwork: Local Diagnosis.....	16
2.1 Understanding the socio-economic context.....	16
2.1.1 Key indicators: NEET, youth unemployment and employability.....	16
2.1.2 Level of digital skills.....	17
2.1.3 Qualitative analyses: understanding the target audiences.....	17
2.1.4 Understanding the economic ecosystem and opportunities.....	18
2.2 Mapping the territory: methods and tools.....	18
2.2.1 The value of asset mapping.....	18
2.2.2 Elements to map.....	19
2.2.3 Data management and analysis.....	19
2.3 Choosing the hub's location: criteria and recommendations.....	20
2.4 Engaging the community and stakeholders.....	21
2.4.1 Community engagement.....	21
2.4.2 Shared governance.....	21
2.5 Summary: steps for a successful territorial diagnosis.....	22
Chapter 3 – Governance & Organizational Structure.....	23
3.1 Why governance matters.....	23
3.2 MolenGeek's governance philosophy.....	23
3.2.1 Roles within a local hub.....	24
3.2.2 Partnerships and ecosystem.....	24
3.3 International coordination: the orchestrator.....	25
3.4 Designing a partnership structure for new hubs.....	25
3.4.1 Steering committees and advisory boards.....	26
3.5 Decision-making and conflict resolution.....	26

3.6 Workflow management and RACI.....	27
3.7 Monitoring, evaluation and communications.....	27
3.8 Resourcing and sustainability.....	28
3.9 Culture of inclusion and adaptive leadership.....	29
3.10 Key takeaways for new hubs.....	29
Chapter 4 – Setting up a Physical Hub.....	30
4.1 Designing the space.....	30
4.1.1 Human-centred design and minimum requirements.....	30
4.1.2 Layout and occupancy.....	31
4.1.3 Specialised areas and equipment.....	31
4.1.4 Sensory and neurodiverse considerations.....	32
4.1.5 Digital infrastructure and sustainability.....	32
4.2 Budgeting and sustainability.....	33
4.2.1 Understanding cost categories.....	33
4.2.2 Funding models and revenue streams.....	34
4.2.3 Sustainability strategies.....	35
4.3 Legal and safety compliance.....	35
4.3.1 Building codes, health and safety.....	35
4.3.2 Event planning and crowd management.....	36
4.3.3 Insurance and liability.....	36
4.4 Accessibility and inclusion.....	37
4.4.1 Physical accessibility.....	37
4.4.2 Neurodiversity and sensory design.....	37
4.4.3 Universal design principles.....	37
4.4.4 Reasonable accommodations and inclusive culture.....	38
4.5 Hub setup toolkit.....	38
4.5.1 Design and layout checklists.....	38
4.5.2 Budget templates.....	39
4.5.3 Safety and accessibility audits.....	39
4.5.4 Digital and operational tools.....	40
Conclusion.....	40
Chapter 5 – Training Methodology and Programmes.....	41
5.1 Philosophy of Learning.....	41

5.2 The Core Programmes.....	42
5.2.1 Fullstack/Web Developer Programme.....	42
5.2.2 Digital Marketing Programme.....	42
5.2.3 Salesforce Administrator Programme.....	43
5.2.4 Cybersecurity (SOC) Programme.....	43
5.2.5 AWS re/Start – Cloud Practitioner Programme.....	44
5.2.6 Blockchain Programme.....	45
5.2.9 Pathways Orientation Programme.....	46
5.3 Pedagogical Methods and Learning Environment.....	47
5.3.1 Project-Based and Active Learning.....	47
5.3.2 Peer Learning and Mentorship.....	47
5.3.3 Inclusive and Adaptive Teaching.....	47
5.3.4 Continuous Feedback and Evaluation.....	47
5.4 Monitoring and Evaluation.....	48
5.5 Localisation and Adaptation.....	48
5.6 Toolkit for Programme Design.....	49
5.7 Key Takeaways for New Hubs.....	49
Chapter 6 – Digital Tools & Data Infrastructure.....	51
6.1 The MoLearning platform.....	51
6.1.1 Key features and functions.....	51
6.1.2 Implementing a MoLearning course.....	52
6.2 Collaboration and knowledge management tools.....	52
6.2.1 Odoo for real-time communication.....	52
6.2.2 Notion as a shared knowledge base.....	52
6.2.3 File sharing and cloud storage.....	53
6.2.4 CRM/ATS and event platforms.....	53
6.3 Data management and dashboards.....	53
6.3.1 Building a data pipeline.....	53
6.3.2 Dashboards for decision-making.....	54
6.4 Data security, privacy and GDPR compliance.....	54
6.4.1 Understanding personal and special category data.....	54
6.4.2 Rights of learners and staff.....	55
6.4.3 Data protection officer and governance.....	55

6.4.4 Implementing GDPR compliant practices.....	55
6.5 Performance dashboards and analytics.....	56
6.5.1 Design principles.....	56
6.5.2 Interpretation and action.....	56
6.6 Integrating emerging technologies.....	57
6.7 Tools for data collection and surveys.....	57
6.8 Interoperability and integration.....	58
6.9 Data governance and ethics.....	58
6.10 Key takeaways.....	59
Chapter 7 – Building the Community.....	60
7.1 Why community matters in innovation hubs.....	60
7.2 Pillars of community in the MolenGeek model.....	61
7.2.1 Tech culture rituals.....	61
7.2.2 Mentorship and soft skills development.....	61
7.2.3 Alumni network and role models.....	62
7.2.4 Partnerships and co-creation.....	62
7.3 Designing physical and digital spaces for community.....	63
7.3.1 Physical design.....	63
7.3.2 Digital community spaces.....	63
7.4 Fostering inclusivity and diversity.....	64
7.4.1 Cultivating an inclusive mindset.....	64
7.4.2 Accessible design and accommodations.....	64
7.4.3 Inclusive programming and events.....	64
7.4.4 Inclusive communication.....	64
7.5 Community management and measurement.....	65
7.5.1 Onboarding.....	65
7.5.2 Engagement strategies.....	65
7.5.3 Measuring community health.....	65
7.6 Toolkit for community building.....	66
7.7 Key takeaways.....	66
Chapter 8 – Events: Hackathons & the European Geek Summit.....	68
8.1 Why events matter.....	68
8.2 An inclusive hackathon philosophy.....	68

8.3 The hackathon blueprint.....	69
8.3.1 Define objectives, audience and theme.....	69
8.3.2 Timeline and budget.....	69
8.3.3 Platform and tools.....	70
8.3.4 Participant recruitment and registration.....	70
8.3.5 Mentors, judges and support.....	70
8.3.6 Running the event.....	71
8.3.7 Judging and awards.....	71
8.3.8 Post-event follow-up.....	71
8.4 Hybrid and virtual hackathons.....	71
8.4.1 Characteristics of virtual hackathons.....	71
8.4.2 Challenges of hybrid hackathons.....	72
8.4.3 Recommendations for hybrid hackathons.....	72
8.5 AR/VR hackathons and immersive experiences.....	73
8.6 The European Geek Summit.....	73
8.7 Event safety and accessibility.....	74
8.8 Impact measurement and legacy.....	75
8.9 Event planning toolkit.....	75
8.9.1 Hackathon checklist.....	75
8.9.2 Hybrid and VR checklist.....	76
8.9.3 Accessibility checklist.....	76
Chapter 9 – Inclusion & Diversity Framework.....	77
9.1 Why inclusion matters.....	77
9.2 Definitions and guiding principles.....	77
9.2.1 Digital equity as community equity.....	77
9.2.2 Asset framing.....	78
9.2.3 Universal design and intersectionality.....	78
9.2.4 Focus areas of digital inclusion.....	78
9.3 Understanding the target groups.....	78
9.3.1 NEETs and young adults.....	78
9.3.2 Women and girls.....	79
9.3.3 Migrants, refugees and stateless persons.....	79
9.3.4 People with disabilities and neurodivergent learners.....	79

9.3.5 Older adults and low-income households.....	80
9.4 Inclusive programme design.....	80
9.4.1 Outreach and recruitment.....	80
9.4.2 Safe and accessible learning environments.....	80
9.4.3 Participatory pedagogy.....	80
9.4.4 Culturally responsive content and language support.....	81
9.4.5 Wraparound support.....	81
9.4.6 Gender-transformative interventions.....	81
9.4.7 Addressing refugee-specific barriers.....	82
9.5 Tackling barriers: strategies and tools.....	82
9.5.1 Affordable connectivity and devices.....	82
9.5.2 Digital skills training and mentoring.....	82
9.5.3 Technical support and troubleshooting.....	83
9.5.4 Policy advocacy and systemic change.....	83
9.6 Monitoring and evaluation.....	83
9.7 Mitigation and continuous improvement.....	83
9.9 Key takeaways.....	84
Chapter 10 – Employment & Partnerships.....	85
10.1 Why employment and partnerships matter.....	85
10.1.1 A demand-driven approach to digital skills.....	85
10.1.2 Expanding the ecosystem through collaboration.....	85
10.1.3 Addressing intersectional digital divides.....	86
10.2 Employer mapping and needs assessment.....	86
10.2.1 Sector analysis and occupational demand.....	86
10.2.2 Engaging local stakeholders.....	87
10.2.3 Employer personas.....	87
10.3 Partnership strategies and models.....	88
10.3.1 Resource and service sharing.....	88
10.3.2 Co-design of curricula.....	88
10.3.3 Job guarantees and apprenticeships.....	88
10.3.4 Multi-stakeholder consortia.....	89
10.3.5 Memoranda of Understanding (MoUs) and legal considerations.....	89
10.3.6 Employer engagement strategies and wraparound support.....	89

10.3.7 Linking to formal VET and apprenticeships.....	90
10.4 Pipeline to employment.....	90
10.4.1 Outreach and candidate selection.....	90
10.4.2 Phase 1: Early work experience or job shadowing.....	91
10.4.3 Phase 2: Intensive training and project-based learning.....	91
10.4.4 Phase 3: Matching and placement.....	91
10.4.5 Entrepreneurship track.....	92
10.4.6 Wraparound support and inclusivity in pipelines.....	92
10.5 Job guarantee and placement models.....	92
10.5.1 The TechGrounds model.....	92
10.5.2 Lessons for replication.....	93
10.6 B2B synergies and return on investment (ROI).....	93
10.6.1 Why companies partner.....	93
10.6.2 Measuring ROI for employers.....	94
10.6.3 Sustainability for hubs.....	94
10.6.4 Policy incentives and public support.....	95
10.6.5 Risk management and diversification.....	95
10.7 Case studies.....	96
10.7.1 Work & Learn (Proximus – iKanbi – MolenGeek).....	96
10.7.2 Cybersecurity training partnership (MolenGeek – Microsoft).....	96
10.7.3 PwC and MolenGeek: governance and talent pipeline.....	97
10.8 Implementation toolkit.....	98
10.9 Monitoring, evaluation and continuous improvement.....	99
10.10 Key takeaways and next steps.....	99
Chapter 11. Peer Learning & Capacity Building.....	101
11.1 Why peer learning and capacity matter.....	101
Mutual learning fuels innovation.....	101
Aligning with MolenGeek’s values.....	101
Building durable capacity across hubs.....	101
11.2 Guiding principles for peer learning.....	102
Create decentralised, inclusive communities.....	102
Ensure adequate resources and leadership commitment.....	102
Cultivate trust and mutual aid.....	103

Focus on active participation and reciprocal benefits.....	103
Build inclusive and equitable CoPs.....	103
11.3 Designing MolenGeek's peer-learning framework.....	104
A community architecture aligned with Work Package 3.....	104
Setting clear goals and guidelines.....	104
Identify knowledge champions and mentors.....	104
Standardise learning formats and tools.....	105
Encourage active participation and reciprocity.....	105
Foster inclusive, horizontal collaboration.....	105
11.4 Building capacity: from trainer training to organisational learning.....	106
Train-the-trainer (ToT) programmes.....	106
Growing new leaders and knowledge stewards.....	106
Institutionalise learning.....	106
11.5 Monitoring, evaluation and continuous improvement.....	107
Indicators of successful peer learning.....	107
Regular reflection and adaptation.....	107
Addressing obstacles and pain points.....	107
11.6 Implementation toolkit.....	108
11.7 Key takeaways.....	108
Chapter 12 – Monitoring, Evaluation & Impact.....	109
12.1 Why monitor and evaluate?.....	109
Continuous improvement.....	109
Inclusion and accountability.....	109
12.2 Key indicators and data sources.....	110
Suggested indicators.....	110
Data sources.....	111
12.3 Building an evaluation framework.....	111
Setting up a steering group.....	112
Theory of Change.....	112
12.4 Tools and methods.....	113
NDIA's Digital Inclusion Impact Aggregator.....	113
Digital Inclusion Evaluation Toolkit (UK).....	113
Surveys and mixed-method approaches.....	114

Dashboards and reporting.....	114
12.5 Inclusive monitoring.....	114
12.6 Learning and adaptation.....	115
12.7 Sustainability and impact evidence.....	115
12.8 M&E toolkit.....	116
12.9 Key takeaways.....	117
Chapter 13 – Project Management & Quality Assurance.....	118
13.1 Why a rigorous project management framework matters.....	118
13.2 Structuring work packages and assigning roles.....	118
13.2.1 Work package (WP) overview.....	118
13.2.2 Defining roles and responsibilities.....	119
13.2.3 Governance bodies and meetings.....	119
13.3 Budget control and reporting.....	120
13.3.1 Building a realistic budget.....	120
13.3.2 Tracking expenses and cash flow.....	121
13.4 Risk management.....	121
13.4.1 Developing a risk register.....	121
13.4.2 Identifying and categorising risks.....	122
13.4.3 Risk analysis and response planning.....	123
13.4.4 Monitoring and updating risks.....	123
13.5 Quality assurance (QA).....	123
13.5.1 Defining quality criteria.....	123
13.5.2 Deliverable review process.....	124
13.5.3 Monitoring project performance and impact.....	124
13.6 Reporting and communication.....	125
13.7 Sustainability and continuous improvement.....	125
13.8 Key takeaways.....	126
Chapter 14 – Financial Model & Sustainability.....	127
14.1 Introduction: why sustainability matters.....	127
14.2 Understanding the cost structure.....	127
14.2.1 Capital and operational expenditures.....	127
14.2.2 Allocating resources across work packages.....	127
14.2.3 Hidden costs and contingency.....	128

14.3 Revenue diversification: building a resilient income mix.....	128
14.3.1 Public funding.....	128
14.3.2 Corporate partnerships and sponsorships.....	128
14.3.3 Fee-for-service and membership models.....	128
14.3.4 Rental income and utilisation fees.....	129
14.3.5 Digital products and intellectual property.....	129
14.3.6 Events and fundraising activities.....	129
14.3.7 Social enterprises and earned income.....	130
14.3.8 Bonds and impact finance.....	130
14.3.9 Monetising existing assets.....	130
14.4 Emerging business models: lessons from digital innovation hubs.....	130
14.4.1 Public-private partnership (PPP) model.....	131
14.4.2 Research & technology organisation (RTO) model.....	131
14.4.3 Hybrid models and cross-subsidisation.....	131
14.5 Building a financial plan: scenarios and projections.....	131
14.5.1 Key metrics and assumptions.....	131
14.5.2 Scenario planning.....	132
14.5.3 Setting financial targets and monitoring performance.....	132
14.6 Fundraising strategies and donor engagement.....	133
14.6.1 Individual and institutional donors.....	133
14.6.2 Digital giving and community campaigns.....	133
14.6.3 Government and multilateral support.....	133
14.7 Ensuring compliance and ethical finance.....	133
14.8 Impact measurement and return on investment.....	134
14.9 Risk management for financial sustainability.....	134
14.10 Sustainability governance and accountability.....	134
14.11 Conclusion and key takeaways.....	135
Chapter 15 – Communication, Brand and EU Visibility.....	136
15.1 Why communication and visibility matter.....	136
15.2 Brand identity and core messaging.....	136
15.3 Audience segmentation and tailored messaging.....	137
15.4 Multi-channel strategy.....	138
15.5 EU branding and visibility obligations.....	139

15.6 Inclusive and accessible communication.....	140
15.7 Storytelling and ethical narratives.....	140
15.8 Media relations and public engagement.....	141
15.9 Brand and visual guidelines.....	141
15.10 Monitoring and evaluation of communications.....	141
15.11 Implementation roles and timeline.....	142
15.12 Conclusion and call to action.....	143
Chapter 16 – Legal, Regulatory and Ethical Compliance.....	144
16.1 Choosing the right legal form and governance.....	144
16.2 Data protection and privacy (GDPR).....	145
16.3 Ethics and codes of conduct.....	146
16.4 Equality, inclusion and non-discrimination.....	147
16.5 Health, safety and insurance.....	147
16.6 Contracts, agreements and intellectual property.....	148
16.7 Financial compliance and reporting.....	149
16.8 Compliance management and continuous improvement.....	149
16.9 Conclusion.....	150

Note for Readers

Throughout this handbook, you will find numerous practical examples, templates, and methodologies drawn from MolenGeek’s experience.

All related checklists, toolkits, and templates mentioned in the chapters are compiled in the Annexes section for direct use and adaptation by new hubs and partners.

Chapter 1 – Understanding the MolenGeek Model

1.1 Mission and Core Values

MolenGeek emerged from a bold vision: to democratize the digital sector and ensure that everyone, regardless of background or academic qualification, can participate in the innovation economy. Its mission is to make technology accessible by cultivating entrepreneurship and offering training, coworking and event opportunities for anyone who is motivated and ready to learn. This mission addresses a fundamental challenge in Europe: many young people face barriers to entering the tech sector because of socioeconomic obstacles, lack of awareness or institutional biases. By providing an open

and inclusive platform, MolenGeek disrupts this status quo and empowers individuals who might otherwise be excluded.

The organisation embraces a set of core values that guide its work. **Inclusion** is at the heart of the model: any individual, whether unemployed, a recent immigrant or a high-school student, can join the community and start learning. **Empowerment** follows: participants are not merely recipients of aid but are encouraged to take ownership of their projects and build sustainable careers. **Innovation** is celebrated not as an abstract concept but as a practical skill set taught through hands-on training and real-world projects. The pedagogical approach emphasises **peer learning**, collective intelligence and autonomy. Students work in teams, learn by doing and mentor each other, fostering a supportive environment where mutual help replaces competition. **Entrepreneurship** is another pillar: programmes cultivate entrepreneurial mindsets and provide incubation pathways for participants to turn their ideas into businesses or social enterprises. **Community** ties it all together; by facilitating interactions through coworking spaces, coding classes and dynamic events, MolenGeek builds a vibrant ecosystem that spans social classes and national borders.

1.2 Why Local Tech Ecosystems Matter

Digital inclusion is both a socioeconomic and a civic imperative. Regions that cultivate robust tech ecosystems experience greater job creation, improved social mobility and heightened community resilience. MolenGeek demonstrates how a local ecosystem can catalyse these benefits: its coworking spaces and coding programmes make high-quality training accessible to residents of neighbourhoods that have long been stigmatised or underserved, such as Molenbeek and Charleroi. By equipping people with digital skills, MolenGeek not only improves their employment prospects but also fosters civic engagement and social cohesion. Participants are encouraged to collaborate on community-oriented projects, volunteer their time and eventually mentor future cohorts. The hub serves as a social anchor, generating positive narratives around areas often associated with unemployment and marginalisation.

The strategic value of local tech ecosystems is evident in the way they interact with regional economies. MolenGeek has helped create more than 35 startups and incubated numerous projects that address local needs while connecting to global markets. Its programmes align with labour market demands by teaching skills in full-stack development, digital marketing, artificial intelligence and cybersecurity. These skills match the shortages identified by European employers and contribute to national and regional digital strategies. Moreover, ecosystems like MolenGeek are agile: by integrating feedback from participants and industry partners, they adapt curricula rapidly. This adaptability is critical in a sector where technological change is constant.

By replicating the MolenGeek model, other regions can benefit from a tested blueprint that combines professional training with community-building and entrepreneurship.

1.3 Origins of the MolenGeek Model

MolenGeek was born in May 2015 during a Startup Weekend in Molenbeek-Saint-Jean, a 54-hour event in which participants assembled in teams to test and develop their entrepreneurial ideas. The success of this event inspired co-founder Ibrahim Ouassari to formalise a structure that would make digital entrepreneurship accessible to young people facing discrimination or lack of opportunities. Initially, the project focused on organising events to help local youth showcase their potential, but it quickly evolved into a year-round incubator and training hub. Ouassari, a Belgian-Moroccan who left school at 13 and later became a tech consultant, represents the resilient and self-taught talent that traditional systems often overlook.

Support from public and private partners accelerated MolenGeek's growth. Early endorsements came from Belgian government representatives and companies such as Google, Microsoft, Samsung and Proximus. In January 2020, Google CEO Sundar Pichai visited MolenGeek and announced a €200 k grant through Google.org to fund a six-month artificial-intelligence module, expand the school and launch a second hub in Brussels. Google employees also committed to mentor participants. High-profile visits from leaders like French President Emmanuel Macron, Belgian King Philippe and EU Commissioner Andrus Ansip signalled MolenGeek's relevance beyond Belgium. These partnerships not only provided funding but also validated the idea that inclusive digital ecosystems can succeed at scale.

A key innovation was MolenGeek's decision to offer all its training programmes free of charge and open to anyone, without prerequisite qualifications. This removed financial and educational barriers and attracted participants who had been excluded from conventional education pathways. Students could borrow laptops and learn coding, marketing or cloud computing while working part-time jobs or caring for families. The school also required participants to volunteer their time to help maintain the community, thereby reinforcing the ethos of reciprocity. The coworking spaces created safe environments where novices and professionals could network, share experiences and cultivate an entrepreneurial mindset.

1.4 Achievements and Impact

Since its inception, MolenGeek has become a catalyst for social mobility and economic growth. The coding school, launched in 2017, has trained hundreds of participants, with an estimated 85 % positive exit rate, meaning that graduates either find employment in

the tech sector or continue their education. Many graduates are hired by partner companies such as Google, Microsoft and Proximus, which also sponsor cohorts and guarantee job placements. MolenGeek's model thus reduces skills gaps while offering employers a pipeline of diverse talent.

The organisation's events amplify its impact. Hackathons attract participants from across Europe and North Africa, inspiring them to develop solutions to social and technological challenges. Geektalks, workshops and community meetups further democratise access to information and expose participants to emerging trends. These events also help to de-stigmatise areas like Molenbeek, shifting public narratives from stories of radicalisation to stories of innovation and success. The 2025 Geek Summit, planned to celebrate MolenGeek's 10th anniversary, is expected to attract 500 participants and will serve as a platform for sharing best practices in vocational education and technology with stakeholders across the continent.

The replicability of the MolenGeek model is evident in its expansion. New hubs have opened in Antwerp, Charleroi, Roubaix and other cities in Belgium, as well as Padua (Italy) and Amsterdam (Netherlands). In 2022, co-founder Ibrahim Ouassari announced plans to open a new chapter in Laeken, Brussels, dedicated to artificial intelligence, with funding from Google, Meta and the City of Brussels. This 600-square-metre hub will focus on cybersecurity & AI, incubate start-ups, train local talent and host events. These expansions illustrate how a local initiative can be scaled through strategic partnerships and public-private collaboration.

1.5 The Erasmus+ Project and the Purpose of this Handbook

The Erasmus+ KA220-VET project under which this handbook is produced aims to transfer the MolenGeek model across Europe by increasing local capacity, developing transnational activities and producing transferable resources. Participating organisations from Belgium, the Netherlands and Italy have committed to document training programmes, share best practices and design inclusive events that can be replicated by other institutions. This cross-border cooperation responds to the European Commission's call for vocational education providers to modernise their curricula and broaden access to digital skills. By documenting the MolenGeek model in detail, the partnership seeks to help local stakeholders create vibrant tech ecosystems that support employment and entrepreneurship. The handbook is a core deliverable and is intended as a comprehensive guide for municipalities, NGOs, universities and companies interested in deploying similar initiatives.

The handbook's structure reflects the holistic nature of the model. Each chapter corresponds to one of the pillars of the ecosystem: diagnostic methodologies,

governance structures, physical infrastructure, pedagogical frameworks, digital tools, community-building, event organisation, inclusion strategies, employment partnerships, peer learning, impact measurement, project management, financial sustainability, communication strategies, legal compliance and an annex of practical resources. This architecture is meant to be modular: readers can focus on specific chapters depending on their needs, yet the whole forms a coherent blueprint for building an inclusive tech hub. Alongside this narrative, the handbook provides templates, checklists, budgets and case studies drawn from MolenGeek's experience. These annexes make it possible to replicate each process with minimal adaptation.

Ultimately, the ambition of the Erasmus+ project is not merely to replicate MolenGeek as an institution but to propagate its ethos and methods across Europe. By leveraging peer learning and open collaboration, partners hope to empower local actors to take ownership of the model, adapt it to their cultural contexts and innovate further. In doing so, they contribute to a more inclusive digital economy where talent and creativity can flourish regardless of social or geographic origin.

Conclusion

The MolenGeek model demonstrates that inclusive, community-driven tech hubs can transform lives and revitalise urban areas. By focusing on empowerment, peer learning and entrepreneurship, it offers a scalable alternative to traditional education and training models. This chapter has traced the model's mission, origins, achievements and its alignment with the Erasmus+ project. The remaining chapters will dive deeper into each pillar, providing readers with the tools, strategies and insights required to build their own ecosystems. Embracing the spirit of collaboration and innovation that defines MolenGeek, we invite you to explore this handbook, adapt its lessons and contribute to a more equitable digital future.

Chapter 2 – Laying the Groundwork: Local Diagnosis

2.1 Understanding the socio-economic context

For a **Molengeek** ecosystem to truly transform the lives of the target communities, it must be anchored in the local socio-economic reality. A precise diagnosis identifies the needs, opportunities, and challenges that determine the design of programmes, the location of the hub and the partnerships to forge. This chapter outlines the steps for analysing the situation of a territory, inspired by the best practices of the **Molengeek–TechGrounds–TechStation alliance** and recommendations from official sources.

2.1.1 Key indicators: NEET, youth unemployment and employability

Measuring NEET. The first data point to collect is the percentage of young people (aged 15–29) who are **Not in Employment, Education or Training (NEET)**. At European level, about **11 %** of 15–29 year-olds were NEET in 2024, and the European Union has set itself the goal of reducing this rate below **9 %** by 2030. Disparities are significant: the Netherlands has one of the lowest rates (4.9 %) while Romania is close to 19 %. Socio-economic context and national policies influence these variations; countries in Southern and South-Eastern Europe have much higher NEET rates than those in the North or West.

In Belgium, the statistical service **Statbel** reports that the proportion of young people NEET (15–29 years) reached **9.9 % in 2024**, compared to 9.6 % in 2023. This value remains slightly above the national target for 2030 (9 %) but well below the **17.2 % recorded in 2000**. The Statbel table shows that the NEET rate in Belgium has clearly decreased since the early 2000s: it fell from **17.2 %** in 2000 to 14 % in 2005 and 12 % in 2020. There is also a gender gap: in 2024, 10.5 % of Belgian men were NEET compared to 9.2 % of women. These data help target programmes towards the groups most affected (e.g., young men in disadvantaged neighbourhoods).

Youth unemployment. Alongside NEET, analysing the unemployment rate of 15–24 year-olds helps assess labour market prospects. According to the International Labour Organization (ILO), youth unemployment remains high in 2025; around **262 million** young people worldwide were NEET (unemployed or inactive) in 2025. The ILO emphasises that the NEET concept better reflects young people's vulnerability than the unemployment rate alone: it includes both unemployed and inactive youth, the majority of whom are women with family responsibilities. For a local diagnosis, it is therefore necessary to analyse the structure of the labour market: growth sectors, types

of vacant jobs, regional unemployment rates and existing incentive measures (hiring subsidies, apprenticeships, etc.).

2.1.2 Level of digital skills

Digital skills are a key indicator for assessing a territory's readiness for tech jobs. At EU level, **56 %** of citizens aged 16–74 had at least basic digital skills in 2023. The EU has set an ambitious objective: **80 %** of the population with basic digital skills by 2030. In 2023, only two countries (the Netherlands and Finland) had already reached this threshold (83 % and 82 % respectively) while Romania (28 %) and Bulgaria (36 %) lagged far behind.

In Belgium, digital skills levels are slightly above the European average. In 2023, 59.4% of people aged 16–74 had at least basic digital skills. The country aims to reach 80% by 2030. However, since there are only two data points available so far, it's too early to determine whether there is a clear upward trend. Regional disparities are significant: in 2023, the Brussels-Capital Region had a rate of **65 %**, Flanders **61 %** and Wallonia **54.6 %**. Differences also exist by gender and education: men are slightly more likely than women to have digital skills (60.7 % versus 58.1 %), and the gap between those with higher education and those without any qualification exceeds 20 points.

2.1.3 Qualitative analyses: understanding the target audiences

Beyond statistics, a successful diagnosis rests on a **qualitative understanding of the target audiences**. MolenGeek programmes primarily address young NEET, people without diplomas, under-represented women in IT, people from immigrant backgrounds and refugees. To identify these groups and their specific needs, it is necessary to:

1. **Build representative personas:**

- a. *Young NEET* (15–29 years) who have dropped out of school or are looking for work.
- b. *Women changing careers*, especially those who left the labour market to care for their family and want to return to stable employment.
- c. *Migrants and refugees* with a diploma or experience abroad but facing difficulties in having their qualifications recognised.
- d. *Students and school dropouts* interested in new technologies but unable to find accessible training.

2. **Identify barriers to entry:** lack of financial means, mobility issues, childcare, insufficient mastery of the host language, lack of self-confidence, limited access to IT equipment, etc. ILO analyses note that young female NEETs are often

inactive due to family responsibilities; therefore, childcare services and tailored social support should be considered.

3. **Determine motivations and aspirations:** desire to start an independent activity, to find a stable job, to discover new fields (cybersecurity, digital marketing, etc.) or to enhance existing skills. Clarifying aspirations helps to calibrate training pathways (duration, intensity, specialisation).

2.1.4 Understanding the economic ecosystem and opportunities

The success of a hub does not depend solely on social statistics; it also requires a good understanding of **growth sectors** and **in-demand occupations**. It is crucial to identify:

- **Growing tech sectors:** web development, cybersecurity, cloud computing, digital marketing, artificial intelligence, etc. The choice of training should respond to local demand and job opportunities.
- **Potential partner organisations:** start-ups, SMEs, large companies, public services, cultural institutions that could collaborate (internships, mentors, sponsorship). Partnerships with Proximus, Google, PwC and other companies have been a key factor in Molengeek's success in Belgium.
- **Public schemes:** regional training and employment support measures, grants, local digital inclusion plans, infrastructure (fibre optic networks, access to transport). Youth employment and training benefit from European programmes (Erasmus+, ESF+, etc.), which should be aligned with the hub's activities.

2.2 Mapping the territory: methods and tools

2.2.1 The value of asset mapping

Creating an inclusive hub requires more than identifying needs; it also calls for mapping **existing assets and resources**. The **asset mapping** approach promoted by the *National Digital Inclusion Alliance* (NDIA) consists of listing organisations, spaces and skills in a territory to build a structured inventory. The NDIA manual states that asset mapping reveals a network of organisations, programmes and places that can be compiled into an inventory. This work not only identifies gaps in digital inclusion but especially **highlights local strengths and synergies**. According to NDIA:

- Asset mapping aims to **understand the ecosystem** and build solutions from within the community rather than focusing solely on deficits.
- **Start simple** by drafting an informal list of organisations engaged in digital inclusion and expand gradually.

- Data collection must be **standardised** (format, mandatory fields) to facilitate aggregation and analysis.
- **Recruit partners** to participate in the collection and use online surveys or shared forms.
- Think about the **final use** of the data: public directory, interactive map, or internal database.

Asset mapping is complemented by **qualitative collection**: interviews, focus groups, observations and public consultations. The NDIA manual emphasises that qualitative research provides an irreplaceable perspective on the **lived experiences** of those affected by digital inclusion. These testimonies reveal invisible obstacles (stigma, self-censorship, institutional mistrust) and inspire relevant solutions (mentoring, community coaches, etc.).

2.2.2 Elements to map

The resources to record during an asset mapping exercise must be varied and classified systematically. NDIA recommends **deciding in advance what categories of actors and assets to include**. For a MolenGeek hub, one might list:

- **Digital equity organisations**: free training centres, local coalitions, digital inclusion initiatives.
- **Public establishments**: libraries, community centres, social centres, youth structures, job offices.
- **Specialist organisations**: refugee associations, shelters, IT insertion programmes.
- **Educational institutions**: secondary schools, universities, technical institutes, employment agencies.
- **Businesses and professional associations**: start-ups, IT companies, consulting firms, coding clubs.
- **Citizen collectives and meeting places**: coworking spaces, makerspaces, student associations, incubators.

NDIA stresses a **multi-layered approach**: determine who is best placed to contribute to information collection (local authorities, associations, cultural institutions) and standardise fields for aggregation.

2.2.3 Data management and analysis

Once the data are collected, it is important to ensure **rigorous analysis** and **secure storage**. The NDIA manual encourages defining indicators and summarising trends:

identify key averages or proportions, detect outliers, identify underserved neighbourhoods or groups and adjust interventions accordingly. Cross-analysing quantitative and qualitative data highlights links between lack of Internet access, poverty, education level, gender or ethnic origin. The personal data collected (names, contacts, addresses) are sensitive and must be stored in accordance with the GDPR. It is advisable to host databases in secure tools (Drive with restricted rights, encrypted CRM) and to plan retention/classification policies.

2.3 Choosing the hub's location: criteria and recommendations

Once the needs, people, and resources have been identified, the key question becomes: **Where should the hub be located?** The location influences accessibility for target communities, the project's image and its financial viability. MolenGeek has demonstrated that setting up in the heart of a neighbourhood perceived as "disadvantaged" can be a strategic choice because it attracts local youth and contributes to **revaluing a territory**. The main criteria to consider are:

1. **Accessibility:** the location must be easily reachable by public transport (metro, bus, train) for participants without a vehicle. Proximity to cycle paths and parking spaces is also important in peri-urban areas.
2. **Cost and space:** assess the budget needed to rent or purchase a space meeting requirements (training rooms, coworking areas, event zone). In cities with high rents, it may be relevant to locate in a redeveloping neighbourhood or share a building with a partner (library, school). We remind founders to evaluate the **affordability of operating costs** (rent, taxes, services) and look for areas that maximise market access while remaining affordable.
3. **Tech ecosystem:** the site should be close to a network of companies and digital initiatives. We stress the importance of the **strength of the local tech sector** (access to partners, clients, mentors) and the **health of the ecosystem** (vibrant community and favourable policies). In our context, this implies the presence of IT companies, university hubs, fablabs or existing coworking spaces.
4. **Digital and logistics infrastructure:** a hub needs a stable high-speed connection, equipped rooms (computers, projectors, VR headsets for hybrid participation). The site must also have safety equipment (emergency exits, accessibility for people with reduced mobility) and amenities (kitchen, sanitary facilities, relaxation area).
5. **Visibility and symbolism:** choosing a place in the heart of a popular neighbourhood (like Molenbeek) sends a strong message of **proximity and**

inclusion. However, the neighbourhood's reputation (safety) must be considered: a place perceived as dangerous may deter some participants or partners; adequate security must be provided and the local community involved in co-managing the space.

6. **Impact on daily life:** we note the need to consider **quality of life** in order to attract talent: schools, public services, green spaces, affordable housing. Although this consideration applies to start-up founders, a MolenGeek hub must ensure participants and employees enjoy an environment conducive to well-being (accessible cafes, affordable catering, relaxation areas).
7. **Community and belonging:** choosing a neighbourhood with an existing associative dynamic (community centres, cultural associations) can facilitate **community anchoring** and participant recruitment. The hub should be perceived as a welcoming, safe space encouraging meetings among people from diverse backgrounds. We advise seeking a **strong sense of community** to support development.
8. **Regulation and public policies:** some municipalities offer incentives for the establishment of social enterprises or training centres (subsidies, tax exemptions). Consulting local authorities makes it possible to benefit from these schemes and ensure compliance (operating permits, safety standards).

2.4 Engaging the community and stakeholders

Local ownership is a key success factor. A hub must not be perceived as a "parachuted" project, but as an **initiative co-designed with citizens, associations and local institutions**.

2.4.1 Community engagement

- **Co-design groups:** organise participatory workshops with representatives of the target audiences to co-define needs, test ideas and adjust proposals. These groups bring a realistic vision of uses (opening hours, format of training, support services).
- **Associative partners:** work with neighbourhood associations, youth organisations, sports clubs, cultural centres, etc., to raise awareness, recruit participants and provide social follow-up. These partners bring **local legitimacy** and knowledge of the target audiences.

- **Mentors and ambassadors:** involve IT professionals, alumni and local entrepreneurs as mentors or ambassadors. Their testimony and experience motivate participants and enhance the hub's credibility.
- **Transparent communication:** from the start, clearly communicate the hub's mission, its goals, its values and its operating rules. Use diverse channels (social networks, flyers, public meetings) and provide multilingual support. Trust is built through transparency and regular exchanges.

2.4.2 Shared governance

A Molengeek model requires **inclusive governance**, associating founding organisations (MG, TG, TS), local authorities, partner companies and representatives of participants. Shared governance enables decisions to be shared (e.g., budgeting, programme choices), conflicts to be resolved and the project's sustainability to be ensured (see Chapter 3 for governance).

2.5 Summary: steps for a successful territorial diagnosis

1. **Collect quantitative data:** NEET, youth unemployment, digital skills, levels of education, income, diversity. Use official sources (Eurostat, Statbel, ILO) and local studies.
2. **Conduct qualitative surveys:** interviews with young people, focus groups with women changing careers, discussions with associations and social services, observation of gathering places.
3. **Carry out asset mapping:** list organisations, programmes, places and resources using NDIA best practices: start simple, standardise information, seek partners and think about final use.
4. **Analyse the data:** cross quantitative indicators with qualitative testimonies to identify underserved neighbourhoods, disadvantaged groups, strengths (presence of many associations) and collaboration possibilities.
5. **Define location criteria:** accessibility, cost, ecosystem, infrastructure, visibility, quality of life, community, regulation. Use an evaluation matrix to compare sites.
6. **Engage local actors:** from the diagnosis phase, mobilise citizens, associations, schools and companies. Create a local steering committee that will participate in the subsequent project (governance, training, events).

7. **Document and share:** record all information in a diagnostic file, which will serve as a reference for strategic decisions and can be shared with financial partners.

By following these steps, organisations wishing to replicate the **Molengeek** model can ground their project in an in-depth understanding of their territory, ensure alignment with the real needs of the population and maximise the social and economic impact of their hub.

Chapter 3 – Governance & Organizational Structure

MolenGeek's success is not the result of luck. Behind the incubators, training cohorts, and hackathons lies a carefully designed governance model that balances collective ownership with clear accountability. This chapter explains why governance is essential for innovation ecosystems, presents the guiding principles and organisational design of MolenGeek hubs, and provides a blueprint for other organisations seeking to replicate the model.

3.1 Why governance matters

Ecosystems thrive when partners share a clear mission and adhere to common rules; they fail when decision-making is opaque or roles are ambiguous. A 2022 analysis by the Boston Consulting Group (BCG) found that **more than 85 % of business ecosystems fail, with more than half of failures resulting from governance problems**. The same study highlights five governance elements—**mission, access, participation, conduct and sharing**—that orchestrators must define to coordinate contributions. Similarly, the Brookings Institution stresses that regional innovation consortia need a formal governance framework, describing a **POWER** model encompassing partnership structure, oversight & decision-making, workflow management, evaluation & communications, and resourcing & sustainability. These frameworks align with **Erasmus+** guidance that projects should identify governance structures and scalability plans.

For community-based hubs like MolenGeek, governance plays several roles:

- **Mission alignment** – ensuring all stakeholders—from corporate partners to municipal agencies and local residents—share the goal of making digital opportunities accessible to everyone, regardless of background.
- **Clarity of roles** – defining who is responsible (R), accountable (A), consulted (C) and informed (I) for each activity (see §3.6).
- **Transparency and trust** – codifying decision-making procedures so that partners, staff and community members know how priorities are set and conflicts are resolved.
- **Scalability** – enabling replication by documenting organisational structures, procedures and templates.

In short, governance is not a bureaucratic add-on; it is a critical ingredient for replicating an inclusive tech ecosystem and safeguarding the public's investment in it.

3.2 MolenGeek's governance philosophy

MolenGeek was founded on the belief that digital innovation should serve **everyone** and be driven by **collective intelligence**. Its pedagogy favours **mutual help, autonomy and practice**, encouraging learners to solve problems together rather than compete. This ethos permeates governance: decision-making structures are designed to be participatory yet efficient, balancing flexibility with clear accountability.

3.2.1 Roles within a local hub

Each MolenGeek hub is a semi-autonomous node within the international network. Roles may vary by country, but the typical organisational structure includes:

Role	Purpose	Responsibilities
Director / CEO (Hub Lead)	Provides strategic direction and represents the hub externally	Sets annual objectives, oversees budgets, cultivates partnerships, chairs governance meetings
Head of Training	Ensures quality and relevance of programmes	Designs curricula, supervises trainers, coordinates with employers to update course content
Community & Inclusion Manager	Builds and engages the learner community	Runs outreach, manages coworking space, ensures diversity & inclusion policies are implemented
Events Manager	Plans hackathons, demo days and the Geek Summit	Develops event formats, manages logistics (incl. hybrid/VR components), oversees evaluation
Career & Placement Officer	Connects graduates to jobs and internships	Curates employer partnerships, matches trainees to opportunities, tracks placement outcomes
Administrative & Finance Officer	Handles compliance, contracts, finances	Manages budgets, reporting (incl. Erasmus+), HR and legal obligations
Steering Committee (local)	Provides strategic guidance and ensures accountability	Composed of representatives from education, industry, government, community organisations and alumni

The local hub lead is ultimately accountable to the **hub's governing board**, which may be a non-profit association or social enterprise, depending on national law. To maintain local legitimacy, at least one seat on the governing board should be reserved for community representatives (e.g., alumni, local NGOs) and a seat for a public sector

representative. Key partners (e.g., Proximus in Belgium) may have observer status to provide expertise without direct control.

3.2.2 Partnerships and ecosystem

No hub can thrive in isolation. MolenGeek's unique model relies on **multi-sector partnerships** that combine resources, expertise and legitimacy. For example, the Belgian telecom operator Proximus supplies connectivity, equipment, sensors, knowledge exchange, internships and data analytics collaborations. Other partners—Google, Microsoft, Meta, PwC—provide mentorship, funding and job placement. Hubs should therefore cultivate a network of **complementors**—organisations that contribute to the ecosystem's mission while benefitting from access to talent or innovation. Governance documents should clarify the rights and obligations of each partner, including in-kind contributions, data-sharing and intellectual property.

3.3 International coordination: the orchestrator

While each hub operates locally, the MolenGeek network functions as a **federated ecosystem**. BCG's research emphasises the necessity of an **orchestrator** to coordinate a diverse group of partners and complementors. MolenGeek International plays this role by:

- **Mission alignment & brand stewardship** – ensuring that each new hub subscribes to the core values of accessibility and collective intelligence, and adheres to branding guidelines.
- **Governance blueprint & templates** – developing standard operating procedures, RACI matrices, training templates and event kits to support replication.
- **Resource and capacity coordination** – negotiating framework agreements with global partners, facilitating bulk purchasing (e.g. VR headsets), and pooling training resources for translation.
- **Knowledge exchange** – running peer-learning groups and working groups (cf. Chapter 11). According to Brookings, consortia should engage diverse stakeholders—including labour and community groups—in ongoing discussion.
- **Monitoring & evaluation** – tracking KPIs (e.g., participants trained, positive exits, diversity, hackathon participation), producing aggregated reports and disseminating lessons learned (cf. Chapter 12).

The orchestrator should empower hubs rather than micromanage them. As BCG notes, adaptive leadership across all ecosystem members allows a network to evolve with

changing contexts. This means the orchestrator must listen to local hubs, adapt processes to different cultural and regulatory environments, and foster co-creation.

3.4 Designing a partnership structure for new hubs

To replicate the model in a new city, proponents must assemble a **consortium** comprising core and supporting partners. The Brookings **POWER** framework suggests beginning with a clear partnership structure. Core partners typically include:

- **Lead entity** – the local organisation that holds fiduciary responsibility (e.g., a non-profit, municipality or university). Brookings recommends designating a regional innovation officer (RIO) or similar to coordinate the consortium.
- **Education and training institutions** – universities, vocational schools or adult learning centres that provide expertise and align curricula.
- **Municipal and regional authorities** – city or regional governments that offer policy support, funding and access to public services.
- **Industry partners** – local and global companies that contribute funding, equipment, internships and job opportunities; they should represent both established firms and start-ups.
- **Economic development agencies** – bodies that integrate the hub into broader local economic strategies.
- **Community organisations** – NGOs, social enterprises and youth associations that ensure programmes reach marginalised populations. In particular, women's and migrant groups should have a seat at the table to maintain inclusivity.

Supporting partners (e.g., investors, technology vendors, research institutes, philanthropic foundations) provide specialised expertise but do not drive daily operations. Hubs should formalise partnerships via **memorandums of understanding (MoUs)** specifying contributions, governance rights (e.g., board seats, voting rights) and exit clauses.

3.4.1 Steering committees and advisory boards

Large consortia benefit from **steering committees** that meet quarterly to set strategic direction, approve budgets and review progress. Brookings suggests that the steering committee should include representation from all core partners and that labour and community voices must not be excluded. An **advisory board**—comprising experts in digital skills, pedagogy, social innovation and employment—can provide independent insights. Together, these bodies ensure that decision-making remains transparent and inclusive.

3.5 Decision-making and conflict resolution

Transparent and equitable decision-making is essential for trust and sustainability. Governance documents should codify:

- **Voting rights and quorum** – establishing which decisions require unanimity, qualified majority or simple majority, and defining quorum thresholds. Weighted voting may be considered when partners' contributions differ significantly.
- **Conflict resolution processes** – following a three-step escalation pathway: (1) informal mediation within working groups, (2) formal review by the steering committee, (3) arbitration by a mutually agreed third-party mediator. Brookings highlights the importance of codifying dispute resolution at the outset to avoid deadlocks.
- **Inclusivity safeguards** – ensuring that marginalised voices (women, migrants, NEETs, small NGOs) are heard. Consider implementing gender-balanced governance, community consultation sessions and time-bounded speaking rules during meetings.

Conflict is inevitable in collaborative ecosystems; what matters is addressing it constructively. Maintaining records of decisions (minutes, resolutions) and rationales fosters accountability and facilitates learning for future hubs.

3.6 Workflow management and RACI

Once partners are assembled, they need to organise their work efficiently. The **workflow management** component of the POWER framework emphasises clear processes, roles and milestones. Molengeek uses **RACI matrices** (Responsible, Accountable, Consulted, Informed) to clarify responsibilities for each activity (e.g., syllabus design, event planning, data reporting). For example:

Activity	Responsible	Accountable	Consulted	Informed
Develop Fullstack syllabus	Head of Training	Hub Director	Employer Advisory Board, Inclusion Manager	Steering Committee
Organise hackathon	Events Manager	Community Manager	IT Support, PR Team	All staff & partners
Submit Erasmus+ progress report	Administrative Officer	Director	Finance Manager, RIO	All core partners

Regular check-ins (e.g., weekly stand-ups) and digital tools facilitate coordination. MolenGeek relies on **Google Workspace** for communication, data sharing, and archiving; **Odoo** for project management; and Molearning for hosting course content (see Chapter 6). To avoid duplication, each document should have a unique owner and be stored according to the network's folder structure (outlined in the Introduction).

3.7 Monitoring, evaluation and communications

Effective governance requires data. The evaluation & communications pillar of the POWER framework advocates defining performance indicators and reporting mechanisms. Hubs should monitor:

- **Participation and outcomes** – number of participants enrolled, completed, and in positive exits (employment/education) broken down by gender, age, socio-economic background (Chapter 12).
- **Diversity and inclusion metrics** – representation of women, migrants, individuals with disabilities, etc., and progress towards targets.
- **Financial performance** – budget vs actual, cost per participant, return on investment for employers.
- **Ecosystem engagement** – number of mentors, partners, events, hackathon participants, job vacancies filled.

Dashboards should be updated quarterly and shared with the steering committee and public (e.g., annual report). Communication channels (newsletters, social media, local press) must be aligned with visibility requirements: logos and funding acknowledgements must appear on all materials.

3.8 Resourcing and sustainability

Sustainable innovation ecosystems diversify their funding and avoid overreliance on any single donor. The resourcing pillar of the POWER framework emphasises both immediate financing and long-term sustainability. Erasmus+ guidelines also ask consortia to plan for financial sustainability and scalability. Hubs should therefore:

- **Combine revenue streams** – grants (EU, national, municipal), corporate sponsorships, paid training for companies, membership fees for advanced services, revenue from commercial projects or co-working, and philanthropic donations.
- **Establish a financial reserve** – a contingency fund covering at least six months of operations.

- **Leverage shared services** – MolenGeek International can negotiate discounted software licences, insurance, or hardware purchases for all hubs. Shared services reduce costs and promote standardisation.
- **Invest in capacity building** – allocate budget for staff training, cross-visit programmes (peer learning), and innovation pilots. Building human capital is as important as financing infrastructure.
- **Plan for succession** – document processes and mentor emerging leaders to ensure continuity when key staff move on.

Ultimately, sustainability is intertwined with governance: transparent budgets, fair resource allocation and accountability to stakeholders build trust and attract further investment.

3.9 Culture of inclusion and adaptive leadership

Governance structures set the stage, but culture sustains the performance. The **Constellation Model of Collaborative Social Innovation** underscores the importance of balancing chaos and order to allow creativity while ensuring coherence. MolenGeek fosters an environment where participants, staff and partners co-create programmes and challenge norms. Regular forums, surveys and open-door policies enable feedback loops and foster continuous improvement.

Adaptive leadership is crucial. BCG highlights that orchestrators should encourage **co-creation and community involvement** and that **adaptive leadership across all players** allows networks to evolve. Hub leaders must be comfortable sharing power, experimenting with new approaches, and adjusting strategies based on data and community input. This requires humility, empathy and a willingness to learn from failures.

3.10 Key takeaways for new hubs

1. **Clarify your mission and governance principles.** Define how decisions will be made, who holds authority, and how community voices are integrated.
2. **Build a multi-sector consortium.** Ensure diversity of partners (education, industry, government, community) and codify roles via MoUs.
3. **Design a participatory structure.** Establish steering committees and advisory boards, and protect the representation of marginalised groups.
4. **Adopt RACI and digital tools.** Use RACI matrices and collaborative platforms to clarify responsibilities and streamline workflows.
5. **Plan for conflicts.** Codify voting rules, quorum and dispute resolution processes to manage disagreements constructively.

6. **Measure and communicate impact.** Track KPIs and share results internally and externally (see Chapter 12).
7. **Diversify funding.** Combine public, private and self-generated revenue streams to ensure sustainability.
8. **Foster an inclusive culture and adaptive leadership.** Balance structure and flexibility, encourage co-creation and remain open to change.

By adopting these principles, new organisations can create resilient, inclusive tech hubs that empower communities and contribute to regional innovation ecosystems. Governance is not merely about control; it is about **sharing power to accelerate collective impact**.

Chapter 4 – Setting up a Physical Hub

Creating a thriving MolenGeek-style hub is as much about **space** as it is about people. The physical environment – the rooms, equipment, ambience and accessibility – influences how participants learn, collaborate and innovate.

This chapter provides a **comprehensive roadmap** for designing, budgeting and operating a physical hub that embodies MolenGeek's values of inclusion, community and digital empowerment.

It draws on lessons from global digital hub guidelines, coworking best practices and accessibility standards to ensure that a new hub is *functional, welcoming and sustainable*.

4.1 Designing the space

4.1.1 Human-centred design and minimum requirements

Every hub should be designed **around its users**.

The German development agency GIZ's *Digital Hub Network Guideline* identifies a set of spaces that modern digital hubs must include: **offices, meeting rooms, coworking spaces, event areas, podcast rooms and digital/creative spaces**. These facilities

should be laid out with a **human-centred approach**, meaning the environment must facilitate collaboration, learning and social interaction.

In practice this translates to providing spaces that *feel* comfortable and accessible, with sufficient daylight, ventilation and intuitive wayfinding. Hubs should be located in areas with good public transport and parking, and there should be potential for growth and collaboration with neighbours. The aesthetic – “look and feel” – matters too; bright, inspiring décor and natural materials help to create a welcoming atmosphere.

The design must also reflect MolenGeek’s *three-pillar model* (training, community and events). At a minimum, allocate:

- **Classrooms and labs** for long training programmes and short bootcamps.
- **Coworking zones** for participants, alumni and start-ups to work on projects. These should include open desks, phone booths and quiet “library” zones for focus.
- **Event spaces** capable of hosting hackathons, workshops and public talks. These need flexible seating, stage areas, digital screens and robust internet infrastructure.
- **Podcast / media rooms** for recording podcasts, webinars or streaming events.
- **Digital and creative spaces** for prototyping or content creation, such as computer labs, 3D printers, fabrication tools or VR studios.
- **Breakout and lounge areas** where participants can relax, network or hold informal meetings.
- **Administrative offices** for staff and private meetings.

These zones should be modular so that the space can be reconfigured for hackathons, summits or training. Movable partitions, foldable tables and mobile equipment allow quick changes between classroom and event modes. Remember that the **quality of the environment influences learning and creativity**: ergonomic chairs, adjustable desks and plants can reduce fatigue and improve concentration.

4.1.2 Layout and occupancy

When allocating space, think in percentages. Research on coworking layouts recommends that **open workspaces occupy 60–70% of the floor area**, with **meeting rooms and private offices each taking 10–15%** and **amenities (restrooms, kitchens, lounges) and relaxation/fitness areas** filling the remaining 5–10%.

Open workspaces encourage collaboration, but quiet zones and soundproof meeting

rooms are essential for concentration. Every 20 users should have access to at least one private call booth or meeting room, and restrooms should be plentiful and gender-inclusive. High-resolution monitors, whiteboards, projectors and high-speed Wi-Fi must be available throughout. Provide abundant power outlets and cable management solutions – “a dead laptop is a lost customer”.

Ensure the hub is **easily navigable**. Hallways and doorways should be wide enough for wheelchairs. Use clear signage and contrasting colours to differentiate zones. Provide tactile floor markings where possible. Clutter should be avoided; maintain clean sightlines from entry points to reception and major spaces.

4.1.3 Specialised areas and equipment

Beyond basic classrooms and coworking zones, certain facilities can significantly enhance the hub’s appeal:

- **Podcast and recording studios:** Soundproofed spaces with microphones, mixers and editing software allow participants to create content and practise digital communication.
- **Maker spaces:** Small labs with 3D printers, laser cutters, VR headsets and prototyping tools support hands-on learning and innovation.
- **Training kitchens or cafés:** Food and drinks are community builders. A small café or kitchen stocked with coffee, tea and snacks becomes the social heart of the hub.
- **Wellbeing space:** Promoting both physical and spiritual wellbeing fosters inclusivity and supports mental performance. Provide dedicated areas for yoga, meditation, exercise, or prayer.
- **Family-friendly areas:** Dedicated spaces for childcare or family support can enable parents to participate in programmes.

Where space is limited, partner with local organisations (libraries, universities, makerspaces, community centres) to access specialised facilities. The hub’s role is to coordinate and connect rather than to own every asset.

4.1.4 Sensory and neurodiverse considerations

An inclusive hub must account for **neurodiversity**. People with autism, ADHD or sensory sensitivities often thrive in environments with thoughtful design. The *Cobot* blog recommends creating **sensory-aware zones** – quiet, dimly lit rooms for focus; moderately stimulating rooms with natural light; and dynamic spaces for social interaction. Offer a variety of furniture (rocking chairs, bean bags, stability balls) and

allow movement and stimulating. Provide custom workstations with noise-cancelling headphones and lighting controls.

Layouts should be **minimalist**, with uncluttered pathways and clear wayfinding. Use dyslexia-friendly fonts, pictograms and high-contrast signage. Provide assistive technologies such as speech-to-text tools and screen readers. Encourage flexible schedules and remote participation to accommodate diverse learning preferences. A culture of acceptance and education – training staff and members about neurodiversity – is essential.

4.1.5 Digital infrastructure and sustainability

A digital hub runs on **connectivity**. Provisioning high-speed business-grade internet is non-negotiable. Use redundant connections or mesh networks to ensure seamless coverage. Implement **access control systems** (keyless entry, CCTV) to protect equipment and data. Install IoT sensors to monitor occupancy, air quality and energy usage; this helps optimise comfort and reduce utility costs.

Sustainability should guide every design decision. Use energy-efficient HVAC systems, LED lighting and smart thermostats. Integrate natural ventilation and shading. Select furniture made from recycled materials and plan for end-of-life recycling. Consider renewable energy sources (solar panels) if budgets allow. Green spaces and plants improve air quality and mental wellbeing.

4.2 Budgeting and sustainability

A physical hub requires significant **initial investment** and ongoing **operating expenditure**. Anticipating these costs and developing a sustainable model are key to survival.

4.2.1 Understanding cost categories

According to European coworking benchmarks (Coworking Europe, Cushman & Wakefield, and Deskmag data), launching a **300-square-metre coworking space** generally requires an initial investment between **€80 000 and €180 000**, depending on location, building condition, and level of finish. The main cost categories are:

- **Security Deposit and Rent**

This remains the largest up-front expense. In European capitals, commercial rents vary from **€150 to €400 per square metre per year**, while deposits usually range from **three to six months' rent**. Negotiating a long-term lease (6-9 years in Belgium and France) may secure better monthly rates but demands

higher capital at the outset. Local authorities or regional development agencies may offer **rent subsidies or innovation-space grants**.

- **Renovation and Fit-Out**

Structural renovation and basic build-out costs in Europe typically range from **€700 to €1 200 per square metre**, including wall modifications, electrical and IT cabling, ventilation, and accessibility adjustments. In older buildings, factor in additional costs for insulation, HVAC upgrades, or energy compliance (EPB, RT2012, etc.).

- **Interior Design and Furniture**

Expect to spend **€800 to €1 500 per square metre** for furniture, flooring, lighting, and interior design. Prioritising durable and ergonomic materials—such as modular desks, acoustic panels, and flexible seating—ensures long-term sustainability and reduced maintenance.

- **Technology and Digital Infrastructure**

Networking and IT infrastructure (servers, routers, switches, access control, printers, and audiovisual systems) usually cost between **€50 and €100 per square metre**. Include additional line items for **software licences, CRM tools, booking systems, and cybersecurity measures** in compliance with the **GDPR** framework.

- **Insurance and Legal Fees**

Standard European packages covering **property damage, liability, cybersecurity, and fire safety** cost between **€150 and €400 per month**, depending on coverage. Legal services for permits, lease drafting, or compliance with local labour and safety standards typically range from **€100 to €300 per hour**. Engaging a **notary** may be required for certain leases or corporate structures.

- **Operational Costs (Monthly)**

Recurring costs include rent or mortgage payments, **staff salaries** (community manager, trainer, receptionist, cleaning staff), **utilities** (internet, electricity, heating/cooling, water), **software subscriptions, marketing, and general maintenance**. A small to medium coworking hub of this size should budget **€8**

000 to €15 000 per month for operations, depending on staffing and service level.

- **Amenities and Maintenance**

Amenities such as coffee and vending machines, cleaning services, plants, and security systems add to monthly expenses. Professional cleaning costs for a **300 m² space** range from **€80 to €200 per day**, depending on frequency and location. Incorporating **eco-friendly maintenance products** and **energy-efficient lighting** can reduce long-term expenses.

4.2.2 Funding models and revenue streams

Hubs can adopt **different business models** depending on their mission:

- **Public or non-profit hubs** often rely on government budgets, grants and donor funding. The Digital Hub Network Guideline notes that government-financed hubs cover building and operational costs, team salaries and programme expenses through public funds. Their revenue options are restricted; they may not charge high rents but can generate income via training fees, sponsorships or consultancy services.
- **Private or social enterprise hubs** can diversify revenue. Memberships are the main income source (hot desk, dedicated desk, private office), but successful spaces also offer day passes, meeting room rentals, virtual office services and event space hire. Additional revenue streams include running corporate training programmes, hosting hackathons for external companies, selling merchandise or café services, and collaborating with partners on funded projects.

Consider *blended financing*: combine grants (e.g. Erasmus+, local government), sponsorship from technology companies, donations, membership revenue, and project-based funding. For example, MolenGeek benefits from both corporate sponsors (Google, JPMC, Proximus) and government support. A diverse funding mix reduces dependency on a single source and enables resilience.

4.2.3 Sustainability strategies

Financial sustainability requires aligning **costs with predictable income**. When planning budgets:

9. **Start small and scale:** Launch with a manageable space and expand as demand grows. Modular designs and pop-up hubs reduce upfront costs and test the market.

10. **Negotiate favourable leases:** Seek spaces owned by municipalities or partners willing to subsidise rent. Consider revenue-sharing arrangements with landlords.
11. **Invest in automation:** Use coworking management software to handle bookings, payments and member communication; this lowers staffing costs. Implement energy-efficient systems to cut utility bills.
12. **Develop long-term partnerships:** Partnerships with universities, corporates and public agencies provide steady contracts for training and event hosting. In Montgomery County, for example, incubators are administered by economic development authorities or universities, demonstrating how public-private partnerships ensure sustainability.
13. **Plan for maintenance and upgrades:** Set aside reserves for equipment replacement and facility upgrades. Wear and tear will require periodic investment in furniture, IT and decoration.
14. **Monitor impact:** Align activities with social and economic goals (e.g. number of NEETs trained, jobs created). A clear impact narrative helps secure funding and attract partners.

4.3 Legal and safety compliance

4.3.1 Building codes, health and safety

Compliance with local regulations is non-negotiable. Engage legal counsel early to navigate building codes, zoning permits and certificates of occupancy. Ensure that your lease explicitly allows the intended uses (training, events, coworking) and includes clauses about sub-leasing or modifications.

A **health and safety policy** should be drafted before opening. Event safety experts outline eight core strategies: examine the unique needs of your event, assess venue suitability, build a health and safety policy, create an emergency plan, train staff, develop a weather safety strategy, develop a security plan, and put crowd control measures in place. These principles apply equally to daily operations. Document evacuation routes and emergency exits; maintain fire extinguishers and first-aid kits; and train staff in emergency procedures.

4.3.2 Event planning and crowd management

Hubs host hackathons, summits and community events. Safety planning must account for physical layout, capacity and participant needs. Event guidance emphasises **accessible venues**: provide accessible seating, accessible toilets, sign language interpreters or captioning, and ensure clear sightlines to screens and stages. Implement

crowd control strategies, such as wristbands for access, visible security staff and clear signage. For hybrid events, plan for both physical and virtual attendees; ensure VR or online participants have adequate support and that digital platforms are secure and inclusive.

4.3.3 Insurance and liability

Risk management in Europe requires securing appropriate insurance coverage and ensuring full compliance with local regulations. At a minimum, coworking hubs should obtain:

- General liability insurance (Professional liability insurance),
- Property and contents insurance (Fire, water damage, and theft insurance),
- Public events and public spaces (Strict liability insurance),
- Event cancellation or interruption insurance for workshops and public events.

The cost of comprehensive coverage varies across countries and insurers but generally ranges between €150 and €400 per month for small to medium-sized spaces.

In addition, allocate a budget for legal and compliance services. Lawyers and specialised consultants typically charge between €100 and €300 per hour in Western Europe (higher in major capitals). Their expertise is essential for reviewing lease agreements, employment contracts, partnership terms, and regulatory obligations related to data protection, safety, and accessibility.

Finally, ensure that membership agreements clearly outline usage rules, liability waivers, cancellation terms, and dispute resolution procedures compliant with EU consumer and contract law. Transparent documentation protects both the hub and its members while reinforcing trust and operational stability.

4.4 Accessibility and inclusion

4.4.1 Physical accessibility

Inclusion begins with **physical access**. A Yardi Kube guide emphasises that coworking spaces should comply with ADA (or equivalent national) standards and go beyond minimum requirements. Key features include:

- **Step-free access:** Ramps and automatic doors at all entries and exits.
- **Adjustable workstations:** Height-adjustable desks and ergonomic seating.

- **Accessible restrooms:** Spacious toilets with grab bars, emergency call buttons and proper sink heights.
- **Clear pathways:** Wide, unobstructed corridors for wheelchairs and mobility aids.
- **Wayfinding:** Clear signage and floor markings to help individuals navigate comfortably.

These features not only comply with the law but also broaden your potential user base. In 2025, inclusive design is considered a business advantage – it fosters participation from a wider range of professionals and reduces barriers.

4.4.2 Neurodiversity and sensory design

Neurodiverse professionals benefit from spaces designed with **sensory awareness**. Provide:

- **Quiet zones** free from noise, bright lights and heavy foot traffic.
- **Flexible seating arrangements:** Private booths, open seating and collaborative areas.
- **Soft lighting options:** Dimmer switches and natural light to reduce glare.
- **Clear signage:** Visual cues and easy-to-read signs.
- **Assistive listening systems:** Hearing loop systems for meeting rooms to support people with hearing impairments.

Sensory-aware design also means offering tools like noise-canceling headphones, fidget devices or weighted blankets and training staff to respect different communication styles and neurodiverse needs.

4.4.3 Universal design principles

The FHI 360 “Safe Spaces” guide outlines **seven principles of universal design**: (1) equitable use, (2) flexibility in use, (3) simple and intuitive design, (4) perceptible information, (5) low physical effort, (6) tolerance for error and (7) size and space considerations. Applying these principles means:

- **Equitable use:** Adjustable desks and multi-sensory information ensure that everyone – regardless of ability – can participate.
- **Flexibility in use:** Offer tools that cater to left- or right-handed users and accommodate various seating and working preferences.
- **Simple and intuitive design:** Provide clear instructions, headers and organisational features; keep interfaces uncluttered.

- **Perceptible information:** Use multiple modes of communication, such as videos with transcripts and voice-overs, pictograms and tactile markers.
- **Low physical effort:** Install automatic doors and use materials that require minimal force.
- **Tolerance for error:** Offer undo features in digital tools and design signage that minimises hazards.
- **Size and space:** Ensure wide entrances and adequate turning space for wheelchairs.

4.4.4 Reasonable accommodations and inclusive culture

Beyond physical modifications, hubs must adopt policies and practices that **facilitate inclusion**. The FHI 360 guide lists reasonable accommodations such as installing visual alerts for audible alarms, providing sign language interpretation, offering interpretation in local dialects, using visual materials to support low literacy participants, offering flexible schedules or extended opening hours, installing ramps and renovating bathrooms.

Inclusivity also extends to how the hub interacts with its community. Offer diverse membership plans that cater to freelancers, start-ups, professionals and volunteers. Conduct sensitivity training for staff and members to raise awareness of disability and diversity. Host events that celebrate different cultures and backgrounds and encourage feedback through surveys or focus groups to continually improve.

4.5 Hub setup toolkit

To translate the above guidance into action, hubs should prepare a **toolkit** of checklists and templates. Below is a non-exhaustive list of recommended tools and resources.

4.5.1 Design and layout checklists

- **Space checklist:** Inventory of required zones (classrooms, coworking, event spaces, podcast rooms, maker spaces, lounges, admin offices, storage).
- **Occupancy guidelines:** Maximum numbers per room, ratio of desks to meeting rooms, recommended restroom capacity.
- **Equipment list:** Furniture (desks, chairs, storage), IT infrastructure (routers, switches, Wi-Fi access points), AV equipment (projectors, microphones), maker tools (3D printers, VR headsets), kitchen appliances, safety equipment (fire extinguishers, first aid kits), assistive devices (hearing loops, adjustable desks).
- **Floor plan templates:** Sample layouts illustrating 60–70% open workspace, 10–15% meeting rooms, 10–15% private offices and 5–10% amenities. Use digital tools to visualise and iterate designs.

4.5.2 Budget templates

- **Startup Cost Calculator**

Develop a detailed spreadsheet listing key expenditure categories — rent, renovation, furniture and equipment, IT infrastructure, legal and accounting fees, insurance, marketing, and contingency reserves — with estimated ranges adjusted to local market conditions.

As a benchmark, launching a 300 m² coworking hub in Europe typically requires between €80 000 and €180 000 in initial investment. Use regional construction indices and coworking industry data (Coworking Europe, Cushman & Wakefield, OfficeRnD) to estimate costs per square metre.

- **Operational Budget**

Prepare monthly and annual projections covering all recurring costs: rent or mortgage payments, staff salaries and social charges, utilities (electricity, internet, heating, water), software subscriptions, insurance premiums, cleaning and maintenance, marketing, and programme delivery (events, workshops, community activities).

Include depreciation schedules for fixed assets and factor in indexation of rents and energy costs, which vary significantly across EU member states.

- **Funding Strategy Template**

Design a financial roadmap identifying potential funding sources such as EU and national grants (Erasmus+, ESF+, FEDER), corporate sponsorships, membership fees, paid training contracts, consulting services, and event rentals.

Align each funding stream with projected expenses and include a risk matrix assessing dependency levels, cash flow timing, and potential funding gaps. Establish a contingency plan — typically 5 % to 10 % of annual operating costs — to ensure resilience in case of shortfalls or delayed payments.

4.5.3 Safety and accessibility audits

- **Event safety checklist:** Based on Eventbrite's eight strategies. Include items for venue inspection, emergency plans, weather contingency, crowd management and accessibility accommodations.
- **Accessibility audit form:** A structured assessment aligned with ADA or local accessibility standards. Check for step-free access, door widths, restroom layout,

signage, lighting, sound levels and assistive technology provision. Combine this with FHI 360's universal design principles and reasonable accommodations lists.

- **Neurodiversity support checklist:** Identify zones for quiet work, flexible seating options, adjustable lighting and available assistive devices. Include staff training and community awareness programmes.

4.5.4 Digital and operational tools

Leverage technology to simplify operations and enhance the user experience:

- **Coworking management software:** Tools such as Spacebring, Yardi Kube, Cobot or Nexodus handle bookings, billing, room scheduling, communication and analytics. They help track occupancy, revenue and member engagement.
- **Collaboration platforms:** Odoo or Microsoft Teams facilitate communication among staff and participants. Notion or Trello can be used for project management and documentation. Google Drive or OneDrive provide shared storage and document editing.
- **Learning management systems:** Molearning (MolenGeek's platform) stores course materials and tracks student progress. You can integrate it with communications platforms and analytics dashboards.
- **Data dashboards:** Build dashboards to monitor KPIs such as membership numbers, space utilisation, revenue, diversity metrics and feedback scores. Data informs decision-making and helps demonstrate impact.

Conclusion

Building a physical hub is a multifaceted endeavour that requires **strategic design, robust budgeting and a deep commitment to inclusion**. The guidelines in this chapter help translate MolenGeek's values into bricks and mortar, ensuring that new hubs are safe, accessible and inspiring spaces where diverse communities can thrive. By following the human-centred design principles, investing wisely, adhering to legal and safety requirements, and embracing universal design, partners can create hubs that not only deliver high-quality training but also serve as beacons of community engagement and innovation.

Chapter 5 – Training Methodology and Programmes

In this chapter we open the black box of MolenGeek’s learning engine. We present the **philosophy of learning** that underpins the success of the organisation, describe the **core programmes** that have been developed, and provide a **toolkit** for designing, localising and evaluating training in new hubs. Throughout the chapter we weave in lessons from partners such as TechGrounds and TechStation, and we reference other initiatives to show how the MolenGeek model can be adapted and scaled.

5.1 Philosophy of Learning

MolenGeek was founded on the conviction that “**C’est en forgeant qu’on devient forgeron**” – one becomes a blacksmith by forging. In the digital world, this translates into a **practice-oriented, hands-on pedagogy**. There are no entrance barriers: the coding school and digital programmes are open to anyone regardless of diplomas or experience. The organisation believes that everyone can learn technical skills if they are placed in the right environment and given support. This inclusive stance is reflected in three principles:

- **Learning by doing:** MolenGeek’s trainings are structured around real-life projects. There are few lectures; instead learners work in teams to design, build and iterate. This project-based approach was highlighted in an interview with co-founder Ibrahim Ouassari, who explained that the coding school uses **active, collaborative learning** where students learn by building projects rather than listening to lectures.
- **Mutual aid and collective intelligence:** The pedagogy encourages peer learning. Students are expected to help one another, run stand-ups and retrospectives and share knowledge with the community. MolenGeek’s general mission statement notes that its pedagogy “favours mutual help, collective intelligence, autonomy and practice”. This creates a culture in which learners become co-creators and mentors to each other.
- **Growth mindset:** Especially in the Pathways orientation programme, participants are taught **how to learn** and are encouraged to adopt a growth mindset. Rather than focusing on memorising tools, they develop meta-skills such as problem solving, computational thinking and the ability to keep up with rapidly changing technologies. This mindset gives confidence to people who previously believed that tech careers were out of reach.

MolenGeek's learning philosophy is complemented by the **ecosystem** described in Chapter 1: learners are embedded in a vibrant community of entrepreneurs, mentors and employers. They receive free or low-cost training thanks to partnerships with companies and public agencies.

5.2 The Core Programmes

To replicate the MolenGeek model, new hubs need to understand the structure and objectives of each training programme. The Erasmus+ project calls for **seven long programmes and one Pathways orientation**. Below we describe each programme, summarising duration, content, teaching methods and career outcomes. The descriptions can be adapted to local labour market conditions and updated as technology evolves.

5.2.1 Fullstack/Web Developer Programme

Objective. This six-month bootcamp trains learners to become full-stack web developers capable of designing, coding and maintaining modern web applications. The course is open to jobseekers up to 29 years old and requires no prior diploma.

Content. The curriculum covers front-end and back-end development, system administration and project management. Students learn HTML, CSS, SASS and JavaScript for the front end, and progress to React, Laravel and MySQL on the back end. They also gain exposure to version control (Git), deployment on cloud servers, security basics and UI/UX design. A series of projects gradually increase in complexity; each ends with a presentation and peer review.

Pedagogy. The programme uses MolenGeek's active learning methodology: there are no long lectures, just sprints and workshops where learners build real applications. Coaches guide students through obstacles and facilitate daily stand-up meetings to foster communication and problem solving. Pair programming and code peer-reviews encourage collaboration. The environment is inclusive, with learners from diverse backgrounds supporting one another.

Career outcomes. Graduates can work as junior full-stack developers, front-end or back-end developers, junior DevOps engineers or technical support specialists. They often secure internships or entry-level positions with partner companies. The programme has a track record of high employment rates: the cybersecurity coalition reported that MolenGeek's alumni in Belgium achieve an 85 % "positive exit" rate.

5.2.2 Digital Marketing Programme

Objective. This six-month programme equips participants with the skills to design, implement and analyse digital marketing strategies. It targets jobseekers interested in careers such as digital project manager, data analyst, brand manager, community manager or web editor.

Content. Students learn how to build and manage websites, run campaigns on social networks, create blog content, and analyse analytics data. Modules cover SEO and SEA, social media management, content creation, email marketing, video editing and community management. Learners also explore marketing automation tools and basic graphic design. They work on real projects such as promoting local events or start-ups and are coached to deliver presentations to stakeholders.

Pedagogy. Like all MolenGeek programmes, the digital marketing course emphasises practice. Students are assigned real marketing problems and must devise strategies, analyse results and iterate. Coaches encourage peer feedback and organise weekly “marketing stand-ups”. The course fosters inclusivity by welcoming women, migrants and people without prior technical experience.

Career outcomes. The programme boasts impressive results: MolenGeek reports that **93 % of trainees leave with a job or entrepreneurial project**. Graduates work as digital marketing specialists, social media managers, content creators or start their own businesses. Partnerships with companies such as Google and Proximus provide internships and job opportunities.

5.2.3 Salesforce Administrator Programme

Objective. Designed in collaboration with Salesforce, this three-month course prepares learners for roles in Customer Relationship Management (CRM). It targets jobseekers interested in configuring, customising and administering Salesforce applications.

Content. The programme trains students to configure the Salesforce environment, create user journeys, set up workflows and integrate data across sales, marketing and service channels. Learners are introduced to App Builder, Sales Cloud and Service Cloud, and can prepare for various Salesforce certifications. Technical modules include database fundamentals, declarative automation, basic Apex coding and Lightning App development.

Pedagogy. Training combines workshops with supervised projects and mock examinations. Participants build a mini-CRM for a fictitious company and receive feedback from mentors working in the Salesforce ecosystem. Soft-skills coaching helps learners prepare for customer interactions.

Career outcomes. The **Salesforce ecosystem is projected to create 4.2 million jobs** over the coming years. Certified Salesforce Administrators typically receive salary premiums of 8 %. Alumni become Salesforce Administrators, CRM specialists, or continue towards roles such as Salesforce Developers, Java Developers and Backend Developers.

5.2.4 Cybersecurity (SOC) Programme

Objective. MolenGeek and Microsoft have launched a programme to equip young people with cybersecurity skills. The pilot aims to train **150 students** in Brussels, focusing on under-represented communities. It addresses the significant skills shortage in Europe, where the Digital Skills & Jobs Platform reports that the continent lacks **around 1 million cybersecurity professionals** and that women remain under-represented in the field.

Content. MolenGeek will develop the curriculum with Microsoft's support. Although detailed modules are still being finalised, the programme is expected to cover:

- **Cybersecurity fundamentals:** threat landscapes, risk management, compliance and privacy law.
- **Network and infrastructure security:** TCP/IP, firewalls, intrusion detection systems, secure configuration and patch management.
- **Security Operations Centre (SOC) operations:** monitoring, logging, incident response and forensics.
- **Cloud security:** identity and access management, virtual machines, cloud vulnerabilities and governance.
- **Certification preparation:** students will prepare for recognised industry certificates such as Microsoft Certified: Security, Compliance and Identity Fundamentals or CompTIA Security+.

Pedagogy. The programme employs blended learning: online labs, workshops at MolenGeek hubs, team projects and mentorship from cybersecurity experts. As part of the Digital AmBEtion initiative, Microsoft provides equipment and mentors. A strong emphasis is placed on **ethical hacking** and responsible data use to inspire confidence among participants.

Career outcomes. Participants will be able to work as SOC analysts, junior cybersecurity consultants, systems administrators or penetration testers. Partner companies including Microsoft and Proximus will offer internships and entry-level positions. The programme aims to certify at least **60** learners.

5.2.5 AWS re/Start – Cloud Practitioner Programme

Objective. The **AWS re/Start** programme trains learners to become cloud practitioners and support the growing demand for cloud-computing skills. The course lasts three to six months and is delivered in partnership with Amazon Web Services (AWS).

Content. The curriculum begins with **IT fundamentals** – Linux command line, networking, security, Python programming and database concepts. Learners then move to **AWS Cloud basics**, including computing, storage, database and messaging services, identity and access management, and architecture design. Advanced modules cover automation with serverless computing, containerisation, monitoring and troubleshooting. The programme incorporates **professional skills** such as communication, presentation and goal setting to prepare students for the workplace.

Pedagogy. Like other MolenGeek programmes, re/Start uses a project-based approach. Students build a cloud deployment architecture for a fictitious company and present their solution to AWS mentors. Daily stand-ups and retrospectives ensure continuous feedback. The training is accessible to everyone, with **no prerequisites**, and emphasises the value of cohort-based learning. Learners are supported by peer coaches and career advisors.

Career outcomes. Graduates can work as cloud support associates, junior DevOps engineers, site reliability engineers or technical account managers. They are prepared to sit for the **AWS Certified Cloud Practitioner** exam and, with additional study, for Associate-level certifications. AWS partners and local employers often recruit directly from the programme.

5.2.6 Blockchain Programme

Objective. Blockchain technology underpins cryptocurrencies and is transforming finance, supply chains and public administration. A dedicated blockchain course helps learners understand distributed ledger technology and develop smart contracts. Though MolenGeek currently runs pilot workshops, we outline a full programme here for new hubs.

Content. Drawing inspiration from The Knowledge Academy's blockchain syllabus, the programme covers:

- **Introduction to Blockchain:** elements of a blockchain, its characteristics, applications and tiers.
- **Types of Blockchain:** public, private and consortium blockchains.

- **Decentralisation:** methods of decentralisation and decentralised applications.
- **Cryptography Fundamentals:** symmetric and asymmetric encryption, hash functions and cryptographic primitives.
- **Bitcoin and Ethereum:** key concepts, wallets, mining and consensus mechanisms.
- **Smart Contracts:** creation and deployment on Ethereum, solidity programming and use cases.
- **Hyperledger and Private Blockchains:** architecture of Hyperledger Fabric and creation of a private blockchain on MultiChain.
- **Blockchain Beyond Currencies:** applications in IoT, government, health, finance and media.

Participants build and deploy a simple smart contract and explore use-cases relevant to their region (e.g., supply chain traceability or voting systems).

Pedagogy. The course emphasises experimentation. Learners visualise transactions on a blockchain explorer, write small smart contracts and collaborate on decentralised apps. Mentors help participants to reflect on ethical and environmental impacts.

Career outcomes. Graduates may become junior blockchain developers, smart contract engineers, blockchain consultants or solution architects. They can join innovation labs, start-ups or large enterprises exploring distributed ledger technology.

5.2.9 Pathways Orientation Programme

Objective. Before committing to a specialised training, many people need to discover the breadth of IT careers and assess their interests and abilities. TechGrounds' **Pathways** programme – delivered with partners such as Equals – provides this essential orientation. It helps participants understand whether IT suits them, learns what jobs exist, and builds the learning skills needed to succeed.

Content. The programme spans three weeks and includes workshops, webinars and self-study. Modules cover:

- **Learning to learn and computational thinking:** teaching participants how to acquire new knowledge and adopt a growth mindset.
- **Introduction to programming:** HTML, CSS and JavaScript.
- **Navigating IT careers:** understanding IT career paths, the T-shaped skills model, and exploring 151 IT jobs across 10 domains.
- **CRM and Salesforce introduction:** basics of customer relationship management and a taster of the Salesforce ecosystem.

- **UX design and data analytics:** introduction to user experience and Python for data.
- **Quality assurance (QA) and testing:** basics of software testing.
- **Cloud basics:** introduction to cloud computing, cloud jobs and security.

Additional webinars provide exposure to online marketing, lean start-up methodology and blockchain & Web3. Participants create a **training and career plan** and present it at a final pitch session. The programme offers both guided (12 days, daily workshops) and self-study options.

Pedagogy. Pathways emphasises exploration. Each day introduces a new topic, followed by hands-on exercises and reflection. Learners work in cohorts of about 40 participants and interact via Odoo and video channels. Orientation coaches provide guidance, while alumni share their experiences. The environment is accessible: no technical experience is required and the programme accommodates people on low incomes, with flexible schedules.

Career outcomes. By the end of Pathways, participants understand which IT jobs suit them, know the skills required and have a plan to enrol in a longer programme or apply for entry-level roles. Many continue into MolenGeek or TechGrounds academies. TechGrounds reports that the orientation programme has reached over 1 000 people and served as a gateway to further training.

5.3 Pedagogical Methods and Learning Environment

5.3.1 Project-Based and Active Learning

All MolenGeek programmes rely on **project-based learning**. Students work on successive projects that mirror real tasks in the tech industry. This approach fosters problem-solving, iteration and creativity. In the coding school, for example, learners design and build websites, deploy them to the cloud and manage user feedback. Digital marketing students manage campaigns for local organisations. The active learning design discourages passive consumption of information; instead, students learn through doing, making mistakes and receiving feedback.

5.3.2 Peer Learning and Mentorship

MolenGeek's community culture reinforces learning. Students are encouraged to assist one another, participate in daily stand-ups and offer peer reviews. Mentors from partner companies volunteer their time to supervise projects, provide technical guidance and share industry insights. Pathways participants engage with orientation coaches and alumni via Odoo channels and video calls.

5.3.3 Inclusive and Adaptive Teaching

Programs are designed to be inclusive. There are **no prerequisites** for most courses. Trainers adapt content to learners' starting levels and provide additional support for people with learning differences. Instructors use plain language, visual aids and flexible pacing. The digital marketing programme specifically encourages women and migrants to join, helping address gender gaps in ICT. Pathways emphasises learning how to learn, enabling participants to overcome fear and self-doubt.

5.3.4 Continuous Feedback and Evaluation

Assessment is continuous. Each module concludes with a practical assignment or presentation. Peers and coaches provide feedback against rubrics. Formative assessment helps learners identify gaps and adapt. Summative assessments include capstone projects, presentations to panels of employers and preparation for certifications (e.g., Salesforce or AWS). Surveys and one-on-one coaching sessions measure satisfaction and learning progress.

5.4 Monitoring and Evaluation

Rigorous evaluation ensures that training remains effective and aligned with labour market needs. Hubs should establish a **data collection framework** covering enrolment, retention, completion, employment outcomes, diversity and satisfaction. Key performance indicators (KPIs) include:

- **Completion rate:** percentage of enrolled students who finish the programme. For instance, MolenGeek's Belgian incubators train about 400 people annually with a completion rate near 100 % (derived from internal reports) and an 85 % positive exit rate.
- **Positive exits:** percentage of graduates employed or in further education within six months. MolenGeek aims for 85–90 %; the digital marketing programme reports 93 %.
- **Diversity:** share of women, migrants, low-income participants and other under-represented groups. These metrics help assess inclusivity and highlight areas for improvement.
- **Satisfaction and Net Promoter Score (NPS):** feedback from learners on course quality, coaching, relevance and environment.
- **Certification success:** number of students achieving industry certifications (e.g., AWS Cloud Practitioner, Salesforce Administrator, Microsoft security certificates). In the cybersecurity pilot, MolenGeek and Microsoft aim for 60 certified participants.

Hubs should collect data through surveys, interviews and system logs from learning platforms (e.g., Molearning). Results should be analysed at regular intervals and used to adjust curricula, provide additional support to struggling learners and align with employers' needs.

5.5 Localisation and Adaptation

Training programmes must be adapted to the **linguistic, cultural and economic context** of each site. The Erasmus+ project requires programmes to be available in French, Dutch and Italian. Local partners should:

- Translate teaching materials and user interfaces. Use a **glossary of technical terms** to ensure consistency across languages.
- Adapt examples and projects to local industries (e.g., port logistics in Antwerp, tourism marketing in Bruges, agri-tech in Padua). This increases relevance and employer engagement.
- Consider **regional labour markets** when prioritising programmes. For instance, a hub in the Netherlands may focus more on CRM or blockchain, while a hub in Italy emphasises tourism tech.
- Align scheduling with local realities: adjust cohort size, provide part-time options, and offer stipends or childcare to increase participation.

Learning platforms must also be configured for multi-language use. Molearning and odoo should support interface translation and local data protection requirements.

5.6 Toolkit for Programme Design

To support replication, we recommend a set of tools and templates:

15. **Course design template:** a standard document for planning modules, learning objectives, activities, resources, assessment criteria and inclusion measures. This ensures consistency across programmes and partners.
16. **Learning management system (LMS):** Molearning offers a structured environment for hosting materials, tracking progress and collecting data. Partners should define roles (author, coach, learner) and ensure version control of course materials.
17. **Rubrics and evaluation sheets:** templates for assessing projects, presentations and soft skills. Rubrics should reflect industry expectations and emphasise creativity, collaboration and problem solving.

18. **Peer-learning handbook:** guidelines for organising stand-ups, retrospectives, pair programming and feedback sessions. This includes tips for facilitating inclusive discussions and handling conflicts.
19. **Translation and localisation guide:** instructions for translating materials, managing terminology and ensuring cultural relevance. This guide should include checklists for quality assurance and feedback loops with local teams.
20. **Programme evaluation dashboard:** a template for tracking KPIs and visualising progress. It should include dynamic charts for completion rates, positive exits, diversity metrics and satisfaction scores.
21. **Career support framework:** guides for CV writing, interview preparation, portfolio building and job matching. MolenGeek's partnerships with employers provide examples of how to connect graduates with opportunities.

5.7 Key Takeaways for New Hubs

22. **Start with the community:** Understand local needs and aspirations. Design programmes that address both technical shortages and social inclusion.
23. **Embrace active learning:** Replace lectures with project-based tasks, peer learning and mentorship. Build a culture where learners support each other and take ownership of their learning.
24. **Offer a spectrum of programmes:** Provide entry-level orientation (Pathways), specialised training (e.g., web development, marketing, CRM, cloud, agile, blockchain) and continuous professional development.
25. **Partner with industry:** Collaborate with companies to co-design curricula, provide equipment, host mentors and offer job placements. MolenGeek's collaborations with Google, Microsoft, Proximus and Salesforce demonstrate the value of corporate partnerships[6].
26. **Measure impact and adapt:** Track completion, employment and diversity metrics. Use data to iterate and improve programmes.
27. **Ensure sustainability:** Develop a funding model that blends public grants, corporate sponsorship and revenue from services (e.g., short courses, consulting). Plan for long-term staffing and continuous curriculum updates.

By following the guidance in this chapter, new hubs can design and deliver training programmes that are not only inclusive and employment-oriented but also adaptable to different European contexts.

Chapter 6 – Digital Tools & Data Infrastructure

The success of a MolenGeek-style ecosystem depends not only on the physical space and programmes but also on a robust digital infrastructure. Digital tools allow hubs to deliver training at scale, coordinate teams across borders, manage data ethically and monitor impact. This chapter describes the key platforms and practices that underpin an inclusive and data-driven ecosystem, from the **MoLearning** learning platform to collaboration tools, dashboards and data governance. It shows how to choose and configure these tools, illustrates their use in existing hubs, and outlines guidelines for security, privacy and interoperability.

6.1 The MoLearning platform

In the Erasmus-funded network, the online learning platform is called **MoLearning**. It is more than a simple e-learning portal; it combines interactive modules, gamification and resource libraries to support learners throughout their programme[1]. Participants can access course materials, quizzes, assignments and project briefs from any location and at any time, creating a blended learning environment that complements face-to-face sessions.

6.1.1 Key features and functions

- **Modular content.** Courses are broken down into modules and lessons, making it easy for learners to navigate and for instructors to update content. Each module includes learning objectives, a sequence of activities and an end-of-unit assessment. Templates (provided in the annexes) ensure consistency across programmes and allow easy localisation.
- **Gamification and progress tracking.** To keep students engaged and foster autonomy, MoLearning uses badges, leaderboards and progress bars. Learners can see how far they have progressed in a course and compete in friendly challenges. Certificates can be automatically generated when milestones are reached.
- **Interactive elements.** The platform supports quizzes, coding sandboxes and discussion forums. Learners can upload assignments or code, receive feedback from coaches and peers and ask questions in real time.
- **Integration with other tools.** MoLearning links to Odoo channels, calendars and CRM dashboards. Lessons can include embedded videos, slides and external resources. Automated notifications (e.g. deadlines, new content) reduce administrative work.

- **Accessibility and localisation.** Content can be translated into multiple languages using the translation workflow described in Chapter 5. The interface follows best practices for accessibility (contrast, alt text, keyboard navigation), ensuring all participants can use it.

6.1.2 Implementing a MoLearning course

To design a course, authors should start with the **syllabus template**. Each module is then broken into units and added to MoLearning as separate lessons. Authors should use a variety of media (text, video, code challenges) and assign quizzes after each unit. Assignments should reflect real-world projects and include clear evaluation rubrics. Coaches monitor progress through the dashboard and provide feedback via Odoo or the platform itself.

6.2 Collaboration and knowledge management tools

6.2.1 Odoo for real-time communication

A vibrant community requires constant communication. **Odoo** is a widely used platform that facilitates real-time messaging and collaboration. Within each hub, channels can be created for specific cohorts, courses, working groups or events. Instructors and students interact through chats, audio **huddles** and thread-based discussions. Coaches can answer questions quickly, share announcements and celebrate milestones. Odoo also supports integration with external tools such as MoLearning, Google Drive and Notion, enabling notifications and file sharing.

Key practices for Odoo use include:

28. **Dedicated channels.** Create channels for each programme (e.g. #web-dev-cohort-2026) and for cross-cutting topics (e.g. #inclusion, #events). Keep conversations organised by using threads.
29. **Office hours.** Coaches should publish availability, allowing students to post questions or schedule huddles. Peer learning can be encouraged by inviting learners to help each other before coaches intervene.
30. **Announcements and polls.** Use the announcement feature for important updates and Odoo's polling tools to gather quick feedback on programme changes or event scheduling.

6.2.2 Odoo Knowledge as a shared knowledge base

Odoo Knowledge (or Notion) is a flexible workspace that allows users to create documents, take notes and manage projects. Teams can build a central knowledge base with wikis, process documentation, meeting notes and onboarding materials. Templates can be created for lesson plans, project briefs and meeting agendas to ensure consistency across hubs. Notion's database feature supports programme tracking (e.g. list of trainees, modules, assignments) and can be linked to dashboards. Embedding videos, code snippets, charts and external links makes Notion a rich resource for learners.

6.2.3 File sharing and cloud storage

While MoLearning and Odoo store course content, teams need a shared place for large files, images and administrative documents. **Google Drive** or equivalent cloud storage can be used for this purpose. Drive allows permissions to be managed per folder, ensuring sensitive data (e.g. assessment results) is only accessible to authorised staff. Integration with Odoo and MoLearning reduces duplication and ensures that the latest versions are always available.

6.2.4 CRM/ATS and event platforms

To monitor admissions, attendance, alumni follow-up and employer relations, hubs need a **customer relationship management (CRM)** or **applicant tracking system (ATS)**. Many organisations use open-source or commercial tools (e.g. Odoo, Salesforce) to centralise applicant data, progress notes and placement outcomes. Event management platforms (e.g. Eventbrite, Meetup) facilitate registration and provide attendance reports that feed into the dashboard. Integration between CRM and Odoo ensures that communication is tracked and that no participant is left behind.

6.3 Data management and dashboards

Collecting data across programmes and hubs is essential for evidence-based decision-making. Without reliable metrics, it is impossible to track whether training activities reach their targets or to implement corrective actions.

6.3.1 Building a data pipeline

31. **Data capture.** Data should be collected at multiple touchpoints: when participants apply (registration forms), during training (attendance tracking, module completion, quiz scores), in community activities and events (check-in data) and after completion (employment status, alumni engagement).

32. **Centralised storage.** All data must flow into a secure database or CRM rather than individual spreadsheets. Unique identifiers (e.g. participant ID) enable linkage across different systems (e.g. Odoo, MoLearning, event platforms). Automated data flows minimise manual entry and reduce errors.
33. **Data cleaning and validation.** Before analysis, data should be checked for completeness and consistency. Standardised definitions (see Chapter 12) ensure that metrics such as “positive exits” or “completion” are measured uniformly across hubs.

6.3.2 Dashboards for decision-making

Dashboards transform raw data into insights. A good dashboard provides a comprehensive overview of the most critical metrics, enabling administrators and educators to make informed decisions and maintain high standards[4]. Monitoring student enrollment, dropout and completion rates helps teams spot trends and intervene early. Real-time dashboards also improve resource allocation and allow targeted interventions.

Key metrics to include:

- **Participant lifecycle** – number of applicants, enrolments, active learners, completions and alumni; distribution by gender, age, socio-economic background and other inclusion criteria.
- **Academic performance** – module completion rates, quiz scores, project grades, average time to completion.
- **Engagement** – messages and reactions on Odoo, participation in events, attendance at code coffees and workshops.
- **Positive exits** – employment rates 6 and 12 months after graduation, job titles, sectors, salary ranges and continuing education.
- **Community impact** – number of collaborations with local organisations, partnerships, volunteers, mentors, hackathon participation.

Dashboards should present data visually (charts, bar plots, heat maps) and allow users to filter by cohort, programme or location. They can be built using business intelligence tools (e.g. Power BI, Tableau, Metabase) or within the CRM. Data should be updated automatically (e.g. daily or weekly) to reflect current performance.

6.4 Data security, privacy and GDPR compliance

Managing personal data responsibly is a legal and ethical obligation. The European Union's General Data Protection Regulation (GDPR) applies to all organisations that handle the personal data of EU citizens. Training hubs collect sensitive information (identity, education records, employment outcomes) and must therefore implement strong protection measures.

6.4.1 Understanding personal and special category data

Personal data is any information that can identify a person, such as name, address, contact details, disciplinary history or grades. Special category data includes sensitive information that requires a higher level of protection, such as racial or ethnic origin, political or religious convictions, genetic or biometric data, mental or sexual health and trade union membership. Hubs must recognise when they are collecting special category data and ensure it is handled with extra care.

6.4.2 Rights of learners and staff

Learners and staff have specific rights under the GDPR. Organisations must ensure that they are aware of these rights and can exercise them. The guidelines for schools emphasise the following rights:

34. **Right to be informed.** All staff and students must be told what data is collected, why it is collected, how it will be used and the legal basis for processing.
35. **Right to consent.** Systems must gather parental or participant consent for data processing and verify individuals' ages.
36. **Right to know where data is stored.** Institutions must provide visibility on the software and platforms used for teaching and data collection.
37. **Right to rectification.** Participants can request corrections to inaccurate personal data.
38. **Right to erasure (right to be forgotten).** Individuals can request deletion of their data when the relationship with the organisation ends.
39. **Right to restrict processing and data portability.** Learners may ask to restrict automated decisions or to transfer their data to another controller.

6.4.3 Data protection officer and governance

Schools and similar training organisations are considered public authorities and are therefore legally required to appoint a **Data Protection Officer (DPO)**. The DPO oversees compliance, advises on privacy impact assessments, trains staff and acts as a contact point for regulators. In smaller hubs, this role can be shared or outsourced to an expert organisation. It is good practice to form a data governance committee that includes representatives from each function (training, community, HR, IT) to oversee compliance and respond to issues.

6.4.4 Implementing GDPR compliant practices

- **Lawful basis and consent.** Determine the lawful basis for each data process (e.g. legitimate interest, public task, consent) and document it. Obtain consent when required and provide clear explanations of purpose.
- **Data minimisation.** Collect only the data that is necessary for programme delivery and avoid keeping data longer than required. Define retention periods for different data types.
- **Security and access control.** Use secure platforms (e.g. Odoo, Notion, MoLearning) with encrypted connections and strong password policies. Restrict access to sensitive data to staff with a legitimate need. Regularly audit access logs.
- **Data breach response.** Establish procedures to detect, report and investigate data breaches. Incidents should be logged and reported to the relevant authorities within 72 hours when required.
- **Staff training.** Train all staff and volunteers on data protection principles, phishing risks, handling special category data and reporting incidents.

6.5 Performance dashboards and analytics

Dashboards not only support operational monitoring but also underpin continuous improvement. By visualising progress and outcomes, teams can quickly identify bottlenecks or successes and share results with funders and partners.

6.5.1 Design principles

- **Clarity and simplicity.** Focus on a handful of core metrics that align with project goals. Avoid clutter; group related metrics together and use consistent colour palettes and symbols.

- **Real-time updates.** Automate data feeds from MoLearning, Odoo, CRM and event platforms. Dashboards should update daily or weekly so that issues are detected quickly.
- **Filters and drill-downs.** Users should be able to filter by cohort, location, demographic attributes or time period. Drill-down features enable deeper analysis (e.g. comparing retention rates across programmes).
- **Benchmarking and targets.** Display targets (e.g. 90 % positive exits) and show actual performance relative to these benchmarks. Historical trends help identify whether interventions are working.

6.5.2 Interpretation and action

Data must translate into action. Staff should review dashboards during monthly meetings and agree on interventions (e.g. additional tutoring sessions, support for drop-outs, employer engagement). External stakeholders (partners, funders) can also access aggregated dashboards to monitor progress, increasing transparency and trust.

6.6 Integrating emerging technologies

Technology evolves rapidly, and hubs should be ready to adopt new tools that enhance learning and collaboration. The **Digital Hub Network Guideline** notes that facilities should include meeting rooms, coworking areas, event spaces, podcast rooms and digital and creative spaces, all designed with a human-centered approach. To support hybrid activities, hubs should invest in:

- **High-speed connectivity.** Reliable internet is the backbone of digital learning. Multiple Wi-Fi access points, sufficient bandwidth and redundant connections prevent disruptions during online courses or VR sessions.
- **Video conferencing and streaming equipment.** Cameras, microphones and screens enable remote participants to join classes and events. Recording lectures also allows learners to review material at their own pace.
- **Virtual Reality (VR) and Augmented Reality (AR).** VR headsets (e.g. Meta Quest) support hybrid hackathons and immersive learning experiences. Dedicated VR rooms with appropriate space, safety guidelines and trained staff ensure that everyone can participate. Content should be tested in advance and support accessibility (e.g. seated mode, subtitles).
- **Makerspaces and digital labs.** 3D printers, laser cutters, IoT equipment and prototyping tools encourage creativity and experimentation. These spaces foster

a culture of making and entrepreneurship and can be integrated into programmes such as full-stack development or cloud computing.

6.7 Tools for data collection and surveys

Feedback and evaluation require systematic data collection. Recommended tools include:

- **Online forms.** Platforms like Google Forms, Typeform or Jotform allow hubs to collect registration data, pre-course surveys, module feedback and post-training evaluations. Forms should be designed to capture both quantitative (ratings) and qualitative (open-ended) feedback.
- **Learning analytics.** MoLearning provides logs of learner activities, such as time spent on lessons, quiz scores and participation in discussions. These can be exported for deeper analysis and early intervention (e.g. flagging learners who might drop out).
- **Community polls.** Odoo offers built-in polling features that can be used for quick decisions (e.g. scheduling events) or to gauge interest in new programmes.
- **Focus groups and interviews.** Quantitative data should be complemented by conversations with learners, trainers and employers to understand context, barriers and motivations. This qualitative data enriches dashboards and informs programme design.

6.8 Interoperability and integration

Digital ecosystems become powerful when tools work together. Integrations allow data to flow seamlessly and reduce duplication of effort. Strategies include:

- **API-based connections.** Odoo, Notion, MoLearning and CRM systems provide APIs or built-in connectors that can be used to automate workflows (e.g. when a new learner completes a module, send a message on Odoo and update the CRM).
- **Single sign-on (SSO).** Using identity providers (e.g. Google Workspace, Azure AD) simplifies authentication and ensures that users have appropriate permissions across all platforms.
- **Data standards and naming conventions.** Agree on consistent field names (e.g. participant_id, programme_code), date formats and classification schemes to avoid confusion when merging data from different sources.

- **Documentation and training.** Maintain clear documentation of integrations and train staff to troubleshoot issues. Appoint a technical lead to oversee the integration roadmap and ensure new tools are evaluated for compatibility.

6.9 Data governance and ethics

Beyond compliance, hubs must adopt ethical principles in data use. This includes:

- **Fairness and transparency.** Use data only for legitimate and beneficial purposes, such as improving training quality and measuring impact. Avoid profiling or making high-stake decisions solely based on automated analysis.
- **Participant ownership.** Encourage learners to access their data and understand how it is used. Provide clear contact points for questions or complaints.
- **Continuous improvement.** Regularly review data collection practices, update privacy notices and reflect on whether data collected is necessary. Embrace privacy-by-design principles when adopting new tools.
- **External oversight.** Involve independent advisors (e.g. ethics boards or academic partners) to review data practices and provide recommendations.

6.10 Key takeaways

- A robust digital infrastructure is essential for scaling the Molengeek model and supporting learners across multiple countries.
- **MoLearning** provides a flexible, gamified learning environment that integrates with other platforms.
- Collaboration tools such as **Odoo** and **Notion** foster real-time communication and knowledge sharing.
- Data dashboards enable institutions to make informed decisions, allocate resources effectively and implement targeted interventions.
- Adhering to GDPR principles protects learners' personal and special category data and respects their rights.
- Hubs should invest in emerging technologies and ensure interoperability across tools to future-proof their ecosystem.

This chapter provides the blueprint for building a digital backbone that supports education, community and events. By selecting the right tools, implementing sound data practices and adhering to ethical standards, organisations can ensure their hub thrives in the digital age.

Chapter 7 – Building the Community

An inclusive and vibrant community is the heart of the MolenGeek ecosystem. While programmes and spaces provide the structure for learning and working, it is the

network of people that transforms a hub into a living organism. Community building goes beyond offering desks and Wi-Fi; it nurtures connections, supports wellbeing, encourages collaboration and amplifies impact. This chapter explores why community matters, how to cultivate it, and which structures and events sustain a thriving network of learners, mentors, partners and alumni.

7.1 Why community matters in innovation hubs

Research from coworking and social innovation spaces shows that people are no longer looking for a place to work alone. They seek environments where they can connect, share knowledge and drive collective growth. Impact Hub Berlin notes that community-driven spaces help members **drive impact, stay motivated, share knowledge and build constant growth and development**. Being surrounded by like-minded individuals helps validate each person's journey and reduces feelings of isolation. Harvard Business Review found that workers who feel part of a community are **58 % more likely to thrive, 55 % more engaged and 66 % more likely to stay** with their organisation. A sense of belonging reduces stress and fosters wellbeing, making community a vital ingredient for success in shared workspaces and training programmes.

Community also amplifies innovation. Studies show that we are more likely to generate new and creative ideas when we interact with people we do not know. Coworking spaces bring together individuals from diverse backgrounds and disciplines—developers, marketers, designers, social entrepreneurs—creating a “fertile ground” for cross-pollination. The spontaneous conversations in communal areas and networking events can lead to new business ventures, innovative projects and knowledge exchange. For early stage companies, being part of a supportive community often provides access to mentors, collaborators and investors, accelerating the path to success.

Beyond economic benefits, communities support mental health. Entrepreneurs often face loneliness and self-doubt. A supportive network offers empathy and encouragement. This aligns with the Molengeek mission: to make technology and entrepreneurship accessible to those who have been excluded, by providing a safe space and a family-like environment.

7.2 Pillars of community in the MolenGeek model

The MolenGeek community is built around rituals, mentorship, alumni networks and partnerships. These pillars create a cohesive ecosystem where learning and co-creation happen continuously.

7.2.1 Tech culture rituals

Lead Lunch. Weekly informal gatherings where learners, alumni, coaches and partners discuss projects, share ideas and demo prototypes. The aim is to encourage cross-cohort interactions, normalise peer feedback and create a platform for learners to practice speaking about their work. The casual setting helps break down barriers and fosters trust.

Demo Day and Hackathons. Public events at the end of each programme or quarter showcase projects and celebrate achievements. Hackathons encourage participants to work with people they do not usually collaborate with, reinforcing the cross-disciplinary creativity noted above. The hybrid hackathons described in Chapter 8 illustrate how technology (VR) can enable collaboration across distances.

Geek Talks and Meetups. Monthly talks featuring professionals, alumni or students who present on tech topics, career journeys or social issues. These talks expand horizons and provide role models. The events are open to the public to widen the community and raise awareness.

Social gatherings. Movie nights, board-game evenings or cultural celebrations build friendships and create a relaxed atmosphere. They address loneliness and provide the “water-cooler chats” that founders need to boost morale.

7.2.2 Mentorship and soft skills development

Mentorship is a cornerstone of the MolenGeek philosophy. Participants are paired with mentors from industry and the alumni network to receive guidance, encouragement and feedback. Studies show that supportive relationships, such as having someone at work who cares about you and encourages your development, significantly impact engagement. In practice, mentorship at MolenGeek takes several forms:

40. **One-to-one mentoring.** Each learner meets a mentor every two weeks to review progress, discuss challenges and set personal goals. Mentors help learners navigate technical hurdles and develop soft skills such as communication, time management and problem solving.

41. **Group mentoring.** Cohort sessions where mentors facilitate discussions, lead workshops (e.g. on agile methods, presentation skills) and share experiences. This format encourages peer-learning and mutual support.
42. **Speed mentoring.** Periodic events where learners rotate among several mentors to receive diverse perspectives on career paths, portfolio improvement and networking strategies. This exposure to multiple mentors expands learners' networks and helps them identify potential role models.
43. **Mentor training and evaluation.** Mentors attend training sessions on coaching techniques, inclusive communication and trauma-informed mentoring. They keep logbooks of meetings, which feed into the impact evaluation of programmes.

7.2.3 Alumni network and role models

Alumni are ambassadors of the MolenGeek ethos and prove that success is possible. Maintaining relationships with alumni allows the hub to showcase career pathways, invite past learners to mentor, and create role models for current participants. The alumni network is activated through:

- **Alumni database.** A CRM stores alumni contact details, career status and interests. This enables targeted invitations to events and mentoring opportunities.
- **Ambassador programme.** Selected alumni receive training to become ambassadors. They represent the organisation at events, share their stories through blogs and social media, and support recruitment in their local communities.
- **Alumni events.** Annual gatherings, online meetups and webinars keep graduates connected, encourage networking and encourage them to give back.
- **Success stories.** Documenting alumni journeys inspires current learners and provides tangible evidence for partners and funders.

7.2.4 Partnerships and co-creation

Hubs cannot thrive in isolation. Partnerships with local authorities, companies, universities and community organisations enrich the ecosystem. For example, Impact Hub Berlin emphasises creating bonds around core focus topics—circular economy, diversity, equity and inclusion, green tech and sustainable food—and releasing trend

reports, conferences and matchmaking formats to connect investors and partners. In MolenGeek's context, partnerships include:

- **Employment partners.** Companies commit to recruit graduates and provide mentors and projects for hackathons.
- **Education partners.** Universities and schools collaborate on curricula, host joint events and offer credits for participation. This opens pathways for further education and joint research.
- **Community organisations.** NGOs and local groups ensure programmes reach marginalised communities and provide support for social issues (e.g. housing, mental health).
- **Start-up support.** Incubators and venture capital firms run workshops and pitch sessions to help alumni and participants turn projects into businesses.

The design of partnerships follows the guidelines on governance described in Chapter 3; each partner has a clear role, and cross-partner working groups coordinate joint initiatives.

7.3 Designing physical and digital spaces for community

7.3.1 Physical design

A welcoming environment encourages interaction and caters to diverse needs. The layout of a coworking space plays a critical role in facilitating interaction. Community areas with spacious communal tables and comfortable seating create natural gathering spots for conversations and collaboration. Cozy nooks and lounge areas provide more informal spaces for relaxation and discussion. Quiet zones and private meeting rooms offer focused environments for deep work and confidential discussions. Amenities such as coffee stations and snack bars act as social hubs where members take breaks and engage in casual conversations.

Inclusivity is paramount. Coworking resources highlight that diverse companies generate more cash flow, and inclusive spaces see a 35 % productivity jump. To achieve this, physical spaces must be accessible: wheelchair ramps, wide hallways, gender-neutral bathrooms, adjustable desks and quiet rooms are essential. Providing both lively collaboration areas and peaceful zones ensures that all members—extroverts and introverts, neurotypical and neurodivergent—find comfort.

7.3.2 Digital community spaces

The community lives online as well as offline. Odoo channels, Notion spaces and social media groups enable continuous interaction, especially for hybrid or distributed cohorts. These digital spaces should be moderated to ensure respectful behaviour, and guidelines should encourage inclusive language. For example, the article on inclusive coworking suggests using gender-neutral pronouns and language that resonates with diverse members. Channels can be created for various interests (e.g. women in tech, gaming club, job opportunities) to foster sub-communities and ensure everyone finds their “tribe”.

7.4 Fostering inclusivity and diversity

Inclusivity is not only a moral imperative but also a competitive advantage. Diverse teams produce 2.5 times more cash flow, and inclusive coworking spaces witness a 35 % jump in productivity. However, barriers exist: pricing, marketing images and lack of accessibility features often exclude people of colour, LGBTQ+ communities and neurodivergent individuals.

7.4.1 Cultivating an inclusive mindset

Inclusivity begins with awareness. Unconscious biases influence how community members interact and whom they perceive as “fit” for tech or entrepreneurship. Operators should participate in unconscious bias training and encourage continuous learning. Discussions about diversity and inclusion should be integrated into orientation sessions, mentorship training and community events. Creating a culture where members are encouraged to challenge their assumptions fosters a welcoming atmosphere.

7.4.2 Accessible design and accommodations

Physical accessibility must be built into every hub. As the coworking resources article recommends, accessible entrances, adjustable desks, wide hallways, quiet rooms and gender-neutral bathrooms are essential. Operators should conduct accessibility audits regularly and invite feedback from people with disabilities. In addition, provide sensory-aware design—quiet zones and stimulation gradients—to support neurodivergent members

7.4.3 Inclusive programming and events

Community events should reflect the diversity of members. Celebrate different cultural holidays, organise panels with leaders from various backgrounds and host casual

meetups around shared interests. Give underrepresented voices the spotlight—invite women, non-binary people, migrants and people of colour to lead workshops and share their experiences. This not only builds confidence but also breaks down stereotypes and inspires others to join.

7.4.4 Inclusive communication

Language matters. Use gender-neutral pronouns (“they”) and avoid stereotypical images or language in marketing and internal communications. Ensure that events, job postings and course descriptions are free from jargon that might deter newcomers. Provide translations and subtitles for key content to reach speakers of different languages.

7.5 Community management and measurement

Sustaining a community requires intentional management. A **Community Manager** or team should be responsible for onboarding new members, moderating channels, organising events, coordinating mentorship and gathering feedback. The role involves listening to member needs, connecting people with shared interests and ensuring that the values of inclusion, respect and mutual support are upheld.

7.5.1 Onboarding

Onboarding sets the tone for community engagement. New members should be welcomed with a tour, introduced to cohorts and mentors and given access to digital tools. A welcome kit might include a handbook, community guidelines and a list of upcoming events. Buddy systems pair newcomers with existing members to ease integration.

7.5.2 Engagement strategies

- **Events calendar.** Maintain a public calendar (online and at the hub) with all upcoming events—rituals, workshops, social gatherings—and encourage members to propose events. This transparency increases participation.
- **Recognition and celebration.** Celebrate achievements publicly (e.g. Odoo shout-outs, certificates, newsletter features). Recognition and praise are among the top factors that impact engagement.
- **Surveys and feedback loops.** Use regular surveys and focus groups to gather feedback on programmes and events. Act on feedback quickly and communicate improvements.

- **Sub-communities and interest groups.** Support the formation of clubs (e.g. women in tech, gaming, sustainability). Provide meeting spaces, small budgets and promotion. Interest groups foster deeper connections and help members find their niche.

7.5.3 Measuring community health

Evaluation ensures that the community remains vibrant and inclusive. Key metrics include:

- **Participation rates.** Attendance at events, number of active Odoo users, contributions to Notion or other digital platforms.
- **Net promoter score (NPS) or satisfaction.** Surveys ask members how likely they are to recommend the hub to others. Monitor changes over time and identify drivers of satisfaction.
- **Retention.** The proportion of members who renew their membership or remain engaged after completing programmes. High retention suggests a strong sense of belonging.
- **Diversity and inclusion.** Track demographic data (gender, ethnicity, socioeconomic status) and participation by diverse groups. Measure how many events are led by underrepresented voices and whether members feel included. Combine quantitative data with qualitative feedback to understand the lived experiences of members.
- **Collaboration outcomes.** Count new collaborations, business ventures created by members, cross-disciplinary projects and partnerships. Capture stories of mutual support (e.g. hours spent helping others) to illustrate reciprocity.

7.6 Toolkit for community building

Annex F provides templates and checklists for community managers, including:

- **Event planning checklist.** Timeline for organising Code Coffees, hackathons and social events; inclusive considerations; budgeting; marketing.
- **Mentorship log template.** Fields for mentor/mentee names, meeting dates, topics discussed, actions and follow-up. Aggregated logs feed into KPIs.
- **Community satisfaction survey.** Sample questions to measure NPS, satisfaction with events, feelings of belonging and suggestions for improvement.

- **Inclusion checklist.** Items to verify physical accessibility, inclusive language in communications, diversity of speakers and attendees, and inclusive programming.
- **Onboarding script and orientation schedule.** Steps for welcoming new members, orientation materials and guidelines.

7.7 Key takeaways

- Community is the heartbeat of an innovation hub. It fosters motivation, reduces loneliness and increases engagement, retention and wellbeing.
- Diversity and inclusion are not optional; they drive productivity and innovation. Conscious efforts to address barriers and cultivate inclusive mindsets are essential.
- Physical and digital spaces must be designed to encourage interaction, provide quiet zones and support accessibility.
- Rituals, mentorship, alumni engagement and partnerships form the pillars of a thriving community. These structures create opportunities for collaboration, knowledge sharing and lifelong networks.
- Intentional community management, continuous measurement and feedback loops ensure that the community remains vibrant and responsive to the needs of its members.

In the next chapter we explore the events pillar of the MolenGeek model, detailing how to organise inclusive hackathons and the European Geek Summit.

Chapter 8 – Events: Hackathons & the European Geek Summit

Events lie at the heart of the MolenGeek model. They create focal points for learning, networking and inspiration, allowing diverse participants to collaborate on real-world challenges and accelerating innovation within the ecosystem. This chapter provides a comprehensive guide to designing, planning and delivering hackathons, hybrid events and the flagship **European Geek Summit**, drawing on research and best practices to ensure that events are safe, inclusive and impactful.

8.1 Why events matter

Hackathons and other time-bounded collaborative events have become a global phenomenon. Research on the future of hackathon practice notes that these events **accelerate the development of scientific results and prototypes**, foster communities and “address urgent challenges”. Hackathons began as niche competitions but now take place across science, industry, government and education. MolenGeek embraces hackathons because they combine learning with problem solving and help participants build confidence and networks. A well-run hackathon enables people with different backgrounds to work together on a shared problem and to produce concrete artifacts such as prototypes or pitch decks within a short period.

Beyond hackathons, MolenGeek hosts workshops, networking nights and its annual **Geek Summit**. These events extend the reach of the community, showcase success stories and allow partners to engage with talent. Events also create a virtuous cycle: participants often join a training programme after experiencing a hackathon; graduates return as mentors or judges; companies recruit and sponsor events, and the ecosystem grows.

8.2 An inclusive hackathon philosophy

Hackathons have historically struggled with diversity—events are often dominated by young men. However, organisers can design hackathons to be inclusive by embedding equity at every stage. The CODE2040 guidelines for inclusive hackathons emphasise that organisers must *explicitly* plan for diversity. They recommend creating a **code of conduct** to set the tone, defining clear goals and metrics beyond just participant demographics, engaging with the community to understand their needs, and ensuring inclusion at every layer—from the judging panel to the choice of sponsors. These practices help under-represented groups feel welcome and ensure that event decisions

do not inadvertently exclude participants (for example, by running overnight sessions that may not be safe for women or minorities).

The Eventornado blog on inclusive virtual hackathons underscores that **inclusion is not a checklist**: true inclusivity requires “an active and conscious effort to allow more voices into your personal and professional space”. It means inviting people of different ages, ethnicities, physical abilities and educational levels. Inclusive practices include diversifying the judging panel to avoid “manels”, explicitly welcoming beginners, and using registration forms with open-ended questions so participants can self-identify their pronouns or needs. These small design choices make people feel seen and foster a culture of belonging.

From the start, event organisers should conduct outreach in neighbourhoods and communities that are under-represented in tech. Advertising in multiple languages, partnering with community centres and offering childcare or transportation can dramatically widen the participant pool. Scholarships or travel stipends remove financial barriers. Finally, organisers must adopt a zero-tolerance policy for harassment and model respectful behaviour at all times.

8.3 The hackathon blueprint

Organising a hackathon involves numerous decisions, from defining the purpose to structuring the schedule. This section offers a step-by-step blueprint adapted from research and practice.

8.3.1 Define objectives, audience and theme

A successful hackathon begins with clear **objectives**. Determine whether the event aims to create a new product feature, address a local challenge, or foster community connections. Goals should align with the host organisation’s strategy and be linked to measurable metrics—e.g. number of prototype solutions created, number of participants from under-represented groups, or follow-on projects.

Next, define the **audience**. Are you targeting students seeking new skills, experienced developers tackling advanced problems, or a combination of both? Tailor the complexity of the challenges and the tools offered to the expected skill level. For international events, consider regional factors such as time zones and language when scheduling sessions.

Choosing a **theme** guides the communication, problem statements and judging criteria. Themes should address real problems (e.g. sustainable cities, digital inclusion, health)

while allowing participants creative freedom. When selecting a theme, engage with partners and the community to ensure relevance and avoid token topics.

8.3.2 Timeline and budget

Planning typically begins 3–4 months in advance. The registration period often spans 4–8 weeks to generate buzz and allow participants to form teams. Organisers should set a **timeline** that fits their objectives: short 48-hour sprints encourage urgency, while multi-week virtual hackathons allow deeper exploration.

Budgeting involves more than venue hire. Costs include event management platforms, streaming tools, marketing, catering, prizes, mentorship fees, accessibility services (e.g. sign-language interpreters) and staff. Sponsorships can offset expenses; however, ensure that sponsors align with the event's values and do not alienate participants. The hackathon guide advises aligning sponsors with the event's goals and choosing brands that participants can support.

8.3.3 Platform and tools

Selecting the right platform is crucial for a seamless experience, especially for virtual or hybrid events. The StackUp guide suggests choosing platforms that support easy registration and team formation, provide dedicated working spaces for communication, streamline submission, allow transparent judging with customizable scoring criteria, and offer analytics to measure engagement. For hybrid events, choose tools that integrate in-person and virtual spaces—e.g. video conferencing for remote participants, collaborative whiteboards and chat channels for team communication.

Molengeek's internal events often use Odoo or Discord for team coordination, with shared drives for file storage and for documentation. The key is to provide a single "home" where participants can find information, ask questions and share progress.

8.3.4 Participant recruitment and registration

Advertise widely through social media, local schools, coding meetups, community centres and partner organisations. Make it clear that **beginners are welcome**; many potential participants assume hackathons are only for experienced coders. Include roles beyond coding (e.g. designers, product managers, storytellers). Use open-ended registration forms so participants can self-identify pronouns or accessibility needs. Offer transport stipends or on-site childcare to reduce barriers.

Screening applicants is part of the process for some events. The AR/VR guide recommends allowing about two weeks to process applications, ensuring that teams include complementary skills and will work well together. For community hackathons,

however, avoid over-filtering; diversity of experience and perspective can lead to richer solutions.

8.3.5 Mentors, judges and support

Recruit mentors who reflect the diversity of the participants and the skills needed for the challenge. A diverse judging panel signals commitment to inclusion and prevents unconscious bias in selecting winners. Organisers should provide mentors and judges with a clear briefing: explain the event's objectives, code of conduct and scoring criteria. At least one mentor should be experienced in facilitation and conflict resolution, especially for hybrid events where miscommunication may occur.

8.3.6 Running the event

At the start, present the code of conduct and encourage participants to take breaks and maintain well-being. Use a structured agenda with checkpoints and mini-deadlines to keep teams on track. Provide quiet spaces for focus and separate zones for brainstorming or VR use. Ensure that remote participants receive equal visibility during presentations and feedback. Encourage cross-team collaboration by scheduling lightning talks or informal "office hours" with mentors.

8.3.7 Judging and awards

Judging criteria should be transparent and shared with participants before the event: impact, innovation, feasibility, user experience and alignment with the theme are common categories. Provide multiple prizes (e.g. cash, mentorship, incubation support) to reward diverse achievements and encourage teams to continue working on their ideas. Avoid awarding only one "winner"; celebrate several solutions to demonstrate that innovation comes in many forms.

8.3.8 Post-event follow-up

Capture the momentum by hosting a follow-up session where teams present their progress or discuss what they learned. Connect teams with incubators, investors or training programmes (e.g. the MolenGeek Fullstack or Digital Marketing courses). Gather feedback through surveys and interviews to improve future events, and share success stories with the community. Encourage participants to join the community Odoo or upcoming trainings to maintain engagement.

8.4 Hybrid and virtual hackathons

The COVID-19 pandemic catalysed a shift towards virtual and hybrid formats. Virtual hackathons allow participants to collaborate from anywhere and offer benefits such as

cost savings and reduced environmental impact. They also attract a global talent pool and enable broader diversity. However, organisers must adapt to the unique challenges of remote and hybrid collaboration.

8.4.1 Characteristics of virtual hackathons

Virtual hackathons break geographical barriers and foster collaboration across time zones. They excel at driving innovation through rapid ideation and prototyping, while providing organisations access to a global talent pool. Participants can join from home using video conferencing and digital collaboration tools. The final presentation and judging take place online, eliminating travel costs and enabling wider participation.

Virtual hackathons require careful platform selection and clear communication. Use platforms that integrate registration, team formation and project submissions. Organisers should schedule synchronous sessions (e.g. kick-off, checkpoints, presentations) at times that maximise overlap across time zones and provide asynchronous channels for continuous communication. Time-boxed tasks and regular updates help maintain momentum.

8.4.2 Challenges of hybrid hackathons

Hybrid hackathons combine in-person and online participants, creating unique challenges. An exploratory case study of three hybrid hackathons found that existing strategies for in-person or virtual events often fail to address hybrid-specific issues. Key dimensions of hybrid collaboration include **synchronicity, physical distribution, dynamic transitions and technological infrastructure**. Organisers must manage communication across physical and virtual spaces, ensure balanced access to resources, and handle time-zone coordination. The study noted that different implementation styles—favoring in-person, online or balanced participation—led to distinct participant experiences. Hybrid organisers often rely on technology to bridge interactions but may overlook critical aspects such as time zones and tailored support.

8.4.3 Recommendations for hybrid hackathons

- **Design for equity:** Provide equivalent experiences for in-person and remote participants. Ensure that remote teams can access mentors, materials, and presentations via livestream or VR headsets. Avoid “second-class” experiences where remote teams feel sidelined.
- **Invest in infrastructure:** Use stable, high-bandwidth internet, 360° cameras, microphones and speaker systems in physical rooms; supply VR headsets and controllers to remote participants when necessary. Test all equipment before the event.

- **Time-zone management:** Schedule plenary sessions at times that overlap for all participants. Use asynchronous channels for updates and allow teams to work at their own pace.
- **Role clarity:** Designate a hybrid moderator responsible for monitoring both physical and virtual rooms, coordinating questions, and ensuring that remote participants can speak during Q&A.
- **Mentor availability:** Stagger mentor schedules across time zones, and provide hybrid office hours where remote participants can ask questions.
- **Clear communications:** Provide detailed instructions, codes of conduct and technical support channels to all participants. Offer a “warm-up” session before the event so participants can test platforms and VR equipment.

8.5 AR/VR hackathons and immersive experiences

Augmented and virtual reality hackathons differ from standard events because participants create immersive experiences rather than software alone. The AR/VR hackathon guide notes that hackathons bring together talented, creative individuals from multiple sectors to imagine and deliver innovative technology. Participants form teams based on shared interests and showcase ground-breaking prototypes at the end. In AR/VR hackathons, teams work on augmented or virtual reality experiences rather than typical code or hardware projects.

Competition and creativity: Friendly competition motivates teams and inspires high-quality products. Hackathons encourage thinking “outside the box” by removing constraints; the environment fosters creativity and rapid problem solving.

Preparing for AR/VR events: Screen applicants and build teams carefully; allow two weeks to process applications, match participants and register them using event management software. Secure sponsorship from partners aligned with the event’s values. Ensure the venue has sufficient space and resources for VR equipment, and plan catering to keep participants energised.

VR hackathons also present additional safety considerations: provide clear walkways around participants wearing headsets, supervise use of cables and hardware, and ensure that remote participants with VR equipment have safe spaces. Offer training on using VR platforms and allow participants to practise before the event.

8.6 The European Geek Summit

The **Geek Summit** is Molengeek’s annual flagship event. It brings together 500 participants from across Europe and beyond to explore emerging technologies,

celebrate project outcomes and share best practices. The summit typically spans one or two days and includes:

- **Keynote talks and panel discussions** featuring industry leaders, policymakers and social entrepreneurs.
- **Parallel tracks and workshops** on topics such as AI for good, sustainable tech, digital inclusion and entrepreneurship.
- **Demo fair** where hackathon teams and graduates showcase prototypes and products.
- **Networking and recruitment** sessions connecting participants with employers, investors and training opportunities.
- **Hybrid participation** enabling remote attendees to join via livestream or VR, using interactive tools to ask questions and connect with onsite participants.

To organise a summit of this scale, planners should start at least 6–9 months in advance, secure a venue with multiple rooms and robust internet, and build partnerships with universities, cities and sponsors. Use inclusive communication (multilingual materials, accessible websites) and offer scholarships or travel support to participants from under-represented regions.

8.7 Event safety and accessibility

Ensuring the safety and accessibility of participants is paramount. Event risk management should be integrated into planning from the outset. According to Eventbrite, **67% of event professionals include event safety and security in their meetings and events policies**. A thorough risk assessment identifies potential hazards—weather, technical failures, health risks, security threats, crowd control, personal injury, location-specific risks and virtual risks—and helps organisers take preventive measures. For example, organisers should plan for unexpected weather changes, power outages or internet failures and arrange back-up generators and offline resources. Health risks can be mitigated through hand hygiene stations, ventilation and optional mask policies. Security measures may include entry management, bag checks and liaison with local authorities. Crowd control strategies ensure safe evacuation routes and prevent overcrowding.

Accessibility is not just a legal requirement but a commitment to inclusion. The University of Maryland's accessibility guidelines note that one in five attendees may have a disability and emphasise that organisers must plan accommodations early. They recommend designating a person responsible for accessibility, scheduling events in accessible locations, considering room layout and clear pathways, and including a disability access statement in event announcements. Budgeting for accommodations

such as sign-language interpreters, captioning, assistive listening devices or large-print materials is the responsibility of the host organisation. Event announcements should invite participants to request accommodations in advance, allowing organisers to plan effectively.

Inclusive design features include wheelchair ramps, wide doorways, height-adjustable desks, quiet rooms and clear signage. Provide restrooms and washrooms that are accessible, ensure stage areas have ramps and designate seating for people using wheelchairs or with service animals. Use captioning and provide sign language interpreters for talks and workshops. For hybrid events, ensure that remote attendees have access to live captioning and transcripts.

8.8 Impact measurement and legacy

Events should leave a lasting impact, not just an enjoyable weekend. Establish a data collection plan to measure outcomes: track registrations, attendance (both in-person and remote), diversity metrics (gender, age, ethnicity, education level), number of projects submitted, number of prototypes developed, satisfaction scores, participation in follow-on training, and job placements. Use surveys and interviews immediately after the event to capture feedback on logistics, inclusivity and learning outcomes. Analyse which workshops or technologies were most popular and which participants had the largest learning gains. Document the event with videos, photos and written case studies to share with the broader community and partners.

Finally, integrate event outcomes into the broader Molengeek programme. Identify participants who might benefit from training programmes or incubation, invite them to join the coworking community and involve them in peer-learning sessions. Follow up with companies who expressed interest in projects and facilitate introductions. The goal is to turn hackathons into catalysts for long-term employment and entrepreneurship.

8.9 Event planning toolkit

To assist organisers in replicating the Molengeek event model, this section summarises key tools and templates. They can be adapted to local contexts and specific event themes.

8.9.1 Hackathon checklist

- **Define objectives and metrics:** Set goals linked to strategy and measurable outcomes.
- **Identify target audience:** Determine participant profiles and adjust challenge complexity and outreach accordingly.

- **Select theme:** Choose a relevant, broad topic that encourages creativity and aligns with organisational goals.
- **Draft timeline and budget:** Plan the registration period, communications milestones, event duration and allocate funds for platforms, catering, VR gear, accessibility and prizes.
- **Choose platform and tools:** Use platforms with integrated registration, team formation, collaboration spaces and judging functionality.
- **Recruit mentors and judges:** Ensure diversity across expertise, gender and backgrounds; brief them on objectives and scoring.
- **Prepare materials:** Create guidelines for participants, presentations, intellectual property, data use and code of conduct.
- **Plan marketing:** Develop a communications plan across social media, community partners and schools; highlight inclusivity and beginner friendliness.
- **Implement inclusive recruitment:** Use open-ended forms, offer childcare and travel stipends, reach out to under-represented groups.
- **Test technology:** Run dry-runs for platforms, VR hardware and streaming; fix issues before the event.
- **Run the event:** Follow the agenda, ensure mentor availability, enforce code of conduct, monitor health and safety.
- **Collect and act on feedback:** Use surveys and debrief sessions to gather insights; implement improvements for the next event.

8.9.2 Hybrid and VR checklist

- Provide equivalent experiences for remote and in-person participants: invest in microphones, cameras and VR headsets.
- Manage time zones: schedule synchronous sessions at overlapping times, use asynchronous channels for collaboration.
- Designate hybrid moderators: manage chat and physical Q&A, ensure remote voices are heard.
- Provide training: offer tutorials on using VR platforms and allow participants to test equipment before the event.
- Ensure safety: create clear pathways around VR users, secure cables and equipment, and train staff to assist participants.

8.9.3 Accessibility checklist

- Designate a person responsible for accessibility and reasonable accommodations.
- Select accessible venues and ensure clear pathways and adequate signage.

- Budget for accommodations: sign-language interpreters, captioning, assistive listening devices, large-print materials.
- Include a disability access statement and invite attendees to request accommodations early.
- Provide accessible restrooms, ramps, height-adjustable desks and quiet rooms.
- Ensure hybrid events include live captioning and transcripts for remote participants.

Events are powerful engines of transformation. By designing inclusive, well-structured, safe and hybrid-ready hackathons and summits, MolenGeek can continue to activate talent, foster collaboration and spread its model across Europe. The blueprint and toolkits in this chapter should empower organisers to replicate these high-impact experiences in their own communities.

Chapter 9 – Inclusion & Diversity Framework

9.1 Why inclusion matters

Inclusive tech ecosystems start from a clear understanding of *who* is missing from the digital economy and *why*. Across Europe in 2024, **11 %** of young people aged 15-29 were **NEET** – neither in employment, education nor training. Although the EU aims to reduce this share below 9 % by 2030, the reality remains stark: participation varies from **4.9 % in the Netherlands to 19.4 % in Romania**, and women are more likely to be NEET than men (12.1 % vs 10 %). Simultaneously, only **56 % of EU citizens aged 16-74 had at least basic digital skills** in 2023, and huge gaps persist between countries (Netherlands 83 % vs Romania 28 %). In Belgium, 9.9 % of 15-29-year-olds were NEET in 2024 and women lag slightly behind men in digital skills acquisition. These indicators show that large segments of society – young people, women, migrants, people with disabilities and older adults – remain excluded from the opportunities created by the digital economy.

Digital equity is not just a matter of fairness, it is a driver of social and economic resilience. The *National Digital Inclusion Alliance* (NDIA) emphasises that digital equity programmes must address multiple, interconnected barriers: unreliable or unaffordable broadband, lack of appropriate devices, limited digital skills, privacy and safety concerns, and systemic discrimination such as digital redlining. Without proactive

measures, these factors reinforce existing inequalities across gender, race, disability and socio-economic status. Women and girls in forcibly displaced communities, for example, face compounded barriers: restrictive SIM registration policies, limited device access, low digital literacy, harmful socio-cultural norms, and online gender-based violence. For these reasons, inclusion is a cross-cutting principle throughout the MolenGeek model.

9.2 Definitions and guiding principles

9.2.1 Digital equity as community equity

The NDIA describes **digital equity** as part of broader community equity and power. Equality alone cannot serve communities, because “not everyone starts at the same place” – programmes must **meet people where they are** and provide resources they specifically need. Digital equity initiatives stem from grassroots organising for racial, disability and health equity; they recognise that barriers are conditions experienced by community members, not characteristics that define them. This framing underscores that inclusion is about shifting power: programmes should be co-created with and accountable to the communities they serve.

9.2.2 Asset framing

NDIA recommends an **asset-framing** approach when developing digital inclusion programmes. Rather than starting from a deficit perspective (identifying what people lack), asset framing uplifts the goals, aspirations and existing resources within communities. Practitioners ask how and why members want to use the internet, what access and support would allow them to achieve, and what resources already exist to help them. This participatory and holistic process fosters collaborative solutions, buy-in and local ownership, leading to more sustainable programmes than top-down strategies. In MolenGeek hubs, asset mapping (see Chapter 2) and participatory design are used to ensure programmes build on community strengths and respond to locally expressed needs.

9.2.3 Universal design and intersectionality

The **European Agency for Special Needs and Inclusive Education** stresses that inclusive digital education requires a combination of **user-centred universal design** and assistive technologies. Universal design means that products, environments and services are “usable by all to the greatest extent possible, without the need for adaptation or specialised design”. Assistive technology is a compensatory measure when universal design does not fully meet users’ needs. Inclusion is multi-dimensional and intersects with societal, technical, institutional and individual factors. Vulnerability to exclusion is strongly linked to **intersectionality**, meaning individuals may face

multiple, overlapping forms of discrimination such as gender, ethnicity, disability or socio-economic status. Inclusive programmes must therefore combine universal design with targeted measures for specific groups.

9.2.4 Focus areas of digital inclusion

NDIA outlines four core areas for digital inclusion programmes: **affordable connectivity, appropriate devices, digital skills training** and **technical support**. Programmes may range from community-owned broadband services to signposting low-cost internet plans; from device donation schemes to device-lending libraries; from structured training courses to peer-led learning; and from one-off tech help sessions to sustained mentoring. MolenGeek's inclusion strategy draws on all four pillars, complemented by wraparound services (e.g., childcare, transport subsidies and counselling) to remove non-digital barriers.

9.3 Understanding the target groups

9.3.1 NEETs and young adults

The first priority group comprises **young people not in employment, education or training (NEETs)**. High NEET rates indicate structural disconnection from education and labour markets: in 2024, 11 % of EU 15-29-year-olds were NEET and the rate reached nearly 20 % in some countries. Belgium's NEET rate was 9.9 %. NEET youth often lack digital skills, professional networks and self-confidence; they may be discouraged by formal education and marginalised by socio-economic hardships. MolenGeek's programmes lower entry barriers by offering **free training, no prerequisite qualifications** and a community where young people can learn at their own pace (see Chapter 5). Outreach efforts involve youth organisations, schools, social services and digital ambassadors to reach those not connected to mainstream channels.

9.3.2 Women and girls

Gender inequalities are pronounced in the digital space. Women account for only **34 % of the global STEM workforce**. Forcibly displaced women and girls face compounded barriers: limited access to devices and connectivity due to low purchasing power and high data costs; legal and regulatory hurdles requiring ID documents for SIM or bank accounts; harmful gender norms that limit mobility and time for training; and increased vulnerability to online abuse. A survey by the Global Digital Inclusion Partnership across India, Mozambique, Nigeria and the Philippines found that meaningful connectivity – affordable high-speed access, suitable devices and daily usage in supportive environments – significantly improves women's economic and educational opportunities. In response, inclusive policies call for **subsidy programmes, gender audits** and

community-based tech hubs that empower women and girls. MolenGeek hubs therefore prioritise gender balance in recruitment, offer women-only cohorts, provide childcare and transport support, and ensure safe spaces free from harassment.

9.3.3 Migrants, refugees and stateless persons

The **UNHCR Digital Inclusion programme** asserts that refugees and host communities have the right to be part of a connected society and to have their voices heard in humanitarian responses. The programme works through research, advocacy, capacity building and partnerships to ensure equal, meaningful and safe access to digital technologies. Forcibly displaced people are **50 % less likely to own an internet-enabled phone** than non-displaced persons. Women and girls face additional barriers such as restrictions on SIM registration, affordability issues, and harmful socio-cultural norms. MolenGeek partners with refugee agencies and local NGOs to provide connectivity, devices and training in safe, culturally sensitive environments. Programmes incorporate language support, recognition of prior learning and pathways to employment that acknowledge legal constraints on refugees.

9.3.4 People with disabilities and neurodivergent learners

Inclusion must address the needs of people with disabilities and neurodivergent individuals. Accessible design guidelines require **barrier-free routes, wide doorways, accessible restrooms, height-adjustable desks and clear signage**. Sensory-aware coworking spaces incorporate quiet, dimly lit rooms, moderate zones for collaboration and high-energy social areas, along with varied furniture and assistive tools such as noise-cancelling headphones. Universal design ensures that tools and curricula are usable without adaptation, while assistive technologies compensate when necessary. Staff training, inclusive language and flexible participation options (e.g., asynchronous learning, remote access) are essential.

9.3.5 Older adults and low-income households

Older people often lack digital literacy and may be isolated from digital services. Programmes targeting older adults focus on building confidence, explaining internet benefits, and providing one-to-one support. Low-income households face affordability barriers to connectivity and devices. Subsidy schemes such as the Affordable Connectivity Program in the US and similar national programmes demonstrate that financial assistance can boost internet adoption. MolenGeek advocates for affordable internet plans, bulk purchasing of devices and micro-credit schemes to lower the cost of participation.

9.4 Inclusive programme design

9.4.1 Outreach and recruitment

Inclusive programmes begin with **purposeful outreach**. Marketing should depict diverse role models and use multiple channels – social media, community radio, youth centres, cultural associations, and word-of-mouth. Research shows that marketing images lacking diversity, high programme fees and inaccessible venues act as barriers. Programmes must therefore offer **free or subsidised places**, transparent criteria and translation of materials. Partnerships with local organisations trusted by the target communities amplify recruitment efforts.

9.4.2 Safe and accessible learning environments

Physical spaces should follow universal design: step-free access, lifts or ramps, wide corridors, accessible signage, restrooms and workstations. Sensory-aware design provides zones for deep focus, moderate collaboration and social interaction. A welcoming environment includes culturally sensitive decor, gender-neutral facilities and visibility of diverse role models. Safety policies must cover anti-harassment, data privacy, consent for photo/video, and procedures for reporting issues. Emotional safety is equally important; mentors and coaches receive training in trauma-informed support.

9.4.3 Participatory pedagogy

Learning experiences should be **active, project-based and collaborative**, aligning with Molengeek's pedagogy (see Chapter 5). Participants work on real-world projects in groups, learn by doing and support peers. This model fosters peer learning and reduces power distances, creating spaces where everyone's contributions are valued. In inclusive cohorts, facilitators encourage students from under-represented groups to take leadership roles and provide regular feedback. For women-only or refugee-focused cohorts, content is contextualised to their experiences (e.g., projects addressing community issues or supporting micro-enterprise).

9.4.4 Culturally responsive content and language support

Programmes must be culturally adapted. Content examples, case studies and exercises should resonate with learners' backgrounds. Multilingual instruction and translation ensure comprehension; language support might include glossaries of technical terms in participants' first languages and bilingual coaches. Cultural responsiveness extends to scheduling (accommodating religious observances or family responsibilities) and inclusive celebrations (e.g., acknowledging diverse holidays). Localising programmes

across Belgium, the Netherlands and Italy means working with community organisations to adapt curricula into French, Dutch, Italian or other local languages.

9.4.5 Wraparound support

Many learners face practical barriers: transport costs, childcare responsibilities, accommodation insecurity, health issues. Inclusive programmes provide wraparound support such as **transport stipends, childcare on site, meals, mental-health support, and legal advice** (e.g., for migrants). Partnerships with social services, NGOs and municipal agencies help address these needs. In the Women in Tech example, learning centres in Brazil and Burundi provide a safe environment with computers, internet, a kitchen for meals, and a library; classes train mothers and children together in digital literacy. Another centre in South Africa delivers mentorship, coding skills, digital skills training and cyber-excellence courses.

9.4.6 Gender-transformative interventions

Interventions specifically targeting gender gaps should be **gender-transformative** rather than gender-neutral. UNHCR's Digital Gender Equality Guidance Note highlights the importance of addressing legal and regulatory frameworks (e.g., SIM registration requirements), affordability, socio-cultural norms and safety. Suggested actions include working with regulators to simplify identity requirements; providing data-loaded devices; creating women-only safe spaces for connectivity; integrating digital literacy into women's empowerment programmes; and tackling online gender-based violence through awareness and protection measures. UNESCO's IFAP recommends mandatory gender audits and gender-inclusive policies, and emphasises the value of **community-based tech hubs** to empower women and girls. Molengeek's inclusion strategy incorporates female trainers, mentors and alumni, ensures gender parity in selection committees, and runs campaigns with inspiring role models. Partnerships with initiatives like Women in Tech (which donates computers, runs learning centres and provides digital literacy programmes for mothers and children can amplify impact.

9.4.7 Addressing refugee-specific barriers

For refugees and stateless persons, programmes must navigate regulatory constraints, precarious living conditions and cultural barriers. UNHCR's digital inclusion framework supports partnerships with commercial connectivity providers, community-driven connectivity projects, legal access to SIM cards and digital financial services, targeted interventions for persons with disabilities and older persons, and digital literacy and protection programmes. Programmes also need to provide psychosocial support, language translation, recognition of prior learning and pathways to work that consider asylum status. Community advisory boards of refugees should guide programme design.

9.5 Tackling barriers: strategies and tools

9.5.1 Affordable connectivity and devices

The digital divide often starts with a lack of affordable internet and devices. Options include:

- **Public–private partnerships** to expand broadband infrastructure and subsidise connectivity. NDIA notes that programmes may involve community-owned internet services or support households in signing up for low-cost plans. Advocating for transparent broadband labels and consumer rights ensures households know what they are purchasing.
- **Device recycling and lending.** Women in Tech has donated over **350 computers and laptops** to schools in India and South Africa and established learning centres with computers and internet. Similar initiatives in MolenGeek hubs include corporate laptop donation drives, device-lending libraries and partnerships with refurbishers.
- **Connectivity hubs and public Wi-Fi** in community centres, libraries and hubs. UNHCR emphasises community-based connectivity and partnerships to provide safe, gender-sensitive internet access.

9.5.2 Digital skills training and mentoring

Training should cover foundational digital literacy (e.g., using word processors, email, and safety practices) as well as advanced topics linked to employment paths (e.g., coding, cybersecurity, cloud). Programmes can be modular and progressive; Women in Tech’s digital literacy curriculum includes modules on computing basics, productivity tools, digital creativity and practice. Mixed-level cohorts encourage peer mentoring; cross-cohort hackathons and meetups create supportive networks. Local volunteers, alumni and industry mentors provide role models and help break stereotypes.

9.5.3 Technical support and troubleshooting

Many learners need continued technical support to use devices, software and platforms effectively. Programmes may recruit **digital navigators** – trained staff or volunteers providing one-on-one assistance – and host drop-in sessions. NDIA notes that ongoing technical support is a core pillar of digital inclusion. Digital navigators can also connect participants to other social services.

9.5.4 Policy advocacy and systemic change

Individual programmes cannot solve digital exclusion alone; systemic change is needed. Advocacy efforts may include lobbying for affordable broadband subsidies, inclusive SIM registration policies, funding for digital skills training and recognition of foreign qualifications. UNESCO's IFAP encourages policymakers to adopt comprehensive, gender-inclusive digital policies and to conduct mandatory gender audits. At the local level, MolenGeek and its partners can join coalitions to advocate for inclusive digital agendas.

9.6 Monitoring and evaluation

To ensure programmes achieve their inclusion goals, robust monitoring and evaluation are essential. Metrics should capture:

- **Participation and completion** rates by gender, age, migrant status, disability and socio-economic background. This helps identify disparities and adjust recruitment or support measures.
- **Digital skills gains**, measured through pre- and post-programme assessments or self-reported confidence levels.
- **Positive exits**: proportion of graduates entering employment, further training or entrepreneurship (target 85–90 % positive exits as per Erasmus+ indicators).
- **Retention and satisfaction** scores to gauge whether participants feel welcome and supported.
- **Impact on well-being**: e.g., self-reported empowerment, social inclusion and reduction in loneliness.

Data should be disaggregated to allow intersectional analysis and reported transparently. Asset mapping and qualitative research (interviews, focus groups) enrich quantitative data, revealing lived experiences. Protection of personal data and informed consent must be ensured throughout.

9.7 Mitigation and continuous improvement

Risks to inclusion must be anticipated and mitigated. **Funding cuts** may jeopardise affordability schemes; building diverse revenue streams and lobbying for public subsidies can help. **Cultural resistance** or misinformation may undermine uptake; partnering with trusted community leaders and providing clear information counters this. **Gender-based violence** and online harassment pose safety risks; policies for safe conduct, reporting mechanisms and supportive mentoring are essential. **Digital**

fatigue can affect retention; programmes should balance online and offline activities and provide mental-health support.

Continuous improvement requires regular feedback from participants, staff and partners. Annual reviews of inclusion metrics, qualitative evaluations and external audits help identify gaps and successes. The objective is not only to meet Erasmus+ indicators but to embed a culture of equity, diversity and empowerment at the heart of every hub.

9.9 Key takeaways

- Inclusion is an ongoing commitment, not a one-off intervention. Programmes must address structural barriers – connectivity, devices, skills and support – while tackling systemic discrimination.
- Digital equity requires meeting people where they are and using asset framing to build on community strengths.
- Universal design and assistive technologies enable participation for all; intersectionality reminds us that barriers overlap and require holistic responses.
- Targeted interventions for women, refugees and other marginalised groups must address legal, economic and socio-cultural barriers.
- Partnerships with community organisations, public agencies and private donors are essential to sustain affordability, wraparound support and community ownership.
- Monitoring inclusion metrics and acting on feedback ensures programmes remain responsive and accountable.

By embedding these principles into its operations, MolenGeek can ensure that its network of hubs serves as a model for inclusive digital ecosystems across Europe and beyond.

Chapter 10 – Employment & Partnerships

The ultimate success of a MolenGeek-style hub is measured not only by the number of people trained but by the number of participants who secure meaningful employment or create their own ventures. This chapter explores how to transform a learning ecosystem into a bridge toward the labour market through strategic partnerships, employer engagement, job-matching pipelines and sustainable business-to-business (B2B) synergies. It draws on the European digital skills agenda, the Erasmus+ project framework and real-world partnerships from MolenGeek, TechGrounds and their allies.

10.1 Why employment and partnerships matter

10.1.1 A demand-driven approach to digital skills

Europe faces a significant digital skills gap. The EU's **Digital Decade** policy aims to have **80 %** of the population possess at least basic digital skills by 2030 and to grow the number of ICT specialists to **20 million**. Despite ambitious targets, shortages persist across cybersecurity, artificial intelligence (AI), cloud computing and customer relationship management (CRM). Flanders alone had over **10,000** ICT vacancies in 2024. To close this gap, training programmes must be **demand-driven**—aligned with labour market needs and designed with employers.

The MolenGeek model already generates impressive outcomes. The Cyber Security Coalition notes that MolenGeek eliminates financial and psychological barriers by offering free coworking, training and events, attracting major partners such as Microsoft, Google, Meta, Proximus and PwC. After six months of training, **85 %** of participants secure jobs or start businesses. PwC reports that more than **2,000** people have acquired digital skills through MolenGeek and **85 %** are reintroduced to the labour market, start a start-up or enter further education. This demonstrates that a strong partnership ecosystem dramatically increases positive exits.

10.1.2 Expanding the ecosystem through collaboration

A single hub cannot meet regional or national talent demand alone. Building alliances with companies, government agencies, non-profit organisations and educational institutions multiplies capacity, funding and impact. Partnerships enable:

- **Resource sharing:** companies provide equipment, data sets, mentors and internships while hubs supply a talent pipeline.
- **Curriculum relevance:** employers help design modules that reflect evolving technologies and soft skills requirements.

- **Employment pathways:** job guarantees and apprenticeships connect graduates to full-time positions.
- **Policy support:** municipalities and national agencies align hub activities with regional development goals and provide funding or infrastructure.

The combination of these factors underpins MolenGeek's ability to replicate across Europe. The Erasmus+ project emphasises producing **transferable resources**, creating **transnational activities** (hackathons, summits) and **increasing the capacities of local partners**. Employment-driven partnerships are therefore central to both mission and sustainability.

10.1.3 Addressing intersectional digital divides

Labour shortages are intertwined with broader social inequities. Underrepresented groups—including women, ethnic minorities, migrants, refugees and persons with disabilities—often face multiple barriers to digital employment, such as limited digital literacy, socio-cultural norms and lack of affordable devices (see Chapter 9). The Cyber Security Coalition emphasises that MolenGeek's free trainings and inclusive community remove financial and psychological barriers. However, bridging gender and intersectional divides requires targeted efforts: engaging women-led organisations, offering family-friendly scheduling, and providing safe learning environments. Partnerships play a pivotal role in this by enlisting employers committed to diversity and by pooling resources for wraparound services. As more sectors digitise, inclusive talent development becomes a social imperative, not merely an economic one.

10.2 Employer mapping and needs assessment

Before forging partnerships, new hubs must understand the labour market and identify potential employers. A rigorous **employer mapping** exercise should answer questions like: *Which sectors are growing? What digital roles are in demand? Which companies champion inclusion?* This process will inform curriculum design, partnership strategy and candidate matching.

10.2.1 Sector analysis and occupational demand

44. **Collect labour market data** – Gather regional statistics on ICT vacancies, average wages, growth forecasts and skill shortages. Sources include national statistics offices, industry associations and research bodies. For example, Flanders reported more than 10,000 ICT vacancies in 2024.
45. **Identify priority sectors** – Focus on industries with strong digital needs: cybersecurity, cloud computing, data analytics, digital marketing, CRM (e.g., Salesforce), software development, user experience design, IoT and AI.

46. **Map job roles** – Within each sector, define roles (e.g., software engineer, cloud architect, Salesforce administrator) and specify the technical and soft skills required. The **TechGrounds** job guarantee program matches learners to employers before training; this prescreening identifies which roles will be available at the end of the programme[6].

10.2.2 Engaging local stakeholders

To ensure that the hub's offer reflects real needs, involve local and regional stakeholders from the start:

- **Industry associations and chambers of commerce** – They provide insights into regional labour shortages and help convene employers.
- **Public employment services** – They have data on job seekers and can publicise training opportunities to unemployed and underemployed citizens.
- **Vocational education and training (VET) providers** – Collaborate to bridge non-formal digital training with formal qualifications, a key recommendation from the *diversITY* report.
- **Municipalities and economic development agencies** – These bodies align hub activities with regional strategies (e.g., smart city initiatives) and facilitate funding or facilities.

10.2.3 Employer personas

Creating personas for different employer types can help tailor outreach and collaboration proposals:

Employer type	Characteristics	Incentives to partner
Large corporates	Require a constant stream of specialised talent (e.g., cybersecurity, data analytics). Often have CSR programmes and diversity goals.	Access to diverse talent, branding as an inclusive employer, opportunity to shape curricula, pipeline of pre-qualified candidates.
SMEs/start-ups	Need flexible, multi-skilled workers; often cannot afford lengthy recruitment processes.	Affordable talent pipeline, ability to co-design short courses, access to coworking community and resources.
Public sector & non-profits	Need digital transformation skills for public services and social innovation projects.	Workforce development, social impact, upskilling of civil

Employer type	Characteristics	Incentives to partner servants, improved service delivery.
Staffing & recruitment agencies	Match job seekers with employers across sectors. Seek pre-trained candidates to reduce recruitment cycles.	Ready-to-deploy talent pool, reduced screening time, alignment with diversity quotas.

10.3 Partnership strategies and models

Successful partnerships share clear objectives, transparent roles and mutual benefit. New hubs can adopt several partnership models, ranging from light-touch collaborations to strategic alliances.

10.3.1 Resource and service sharing

Resource partnerships involve companies or institutions contributing tangible or intangible resources to the hub. The **Proximus** partnership demonstrates a robust resource exchange: the telecom company provides equipment, connectivity, IoT sensors, knowledge transfer, training and internships; MolenGeek offers a talent pool, coworking space and synergistic start-up community. Such partnerships deliver mutual value—companies gain access to emerging talent and innovation, while hubs reduce operational costs.

Knowledge exchange can include guest lectures, mentoring, hackathon challenges, or participation in working groups. In the **Work & Learn** programme, iKanbi and Proximus contribute contact-centre mentors for the initial four-month job experience phase

. Mentors guide participants, impart soft skills and evaluate progress.

10.3.2 Co-design of curricula

The *diversITY* report underscores the importance of involving employers in course design. This co-design ensures that technical content aligns with workplace requirements and that behavioural and mindset skills (communication, teamwork, problem solving) are emphasised. Employers can:

- **Participate in curriculum advisory boards** to update modules regularly.
- **Sponsor industry projects** that become capstone assignments.
- **Provide real data sets or problems** for students to solve.

- **Offer certifications** – for example, Salesforce courses leading to administrator and developer credentials.

10.3.3 Job guarantees and apprenticeships

The TechGrounds job guarantee model shows that matching students to employers before training significantly improves placement rates. Initially, TechGrounds had 60 % placements; after introducing prescreening, the rate increased to **80 – 85 %**. Job guarantees create accountability and confidence among learners, funders and employers. Key elements include:

- **Employer pre-commitment** – Companies pledge to hire a specified number of graduates, contingent on successful completion of training and evaluation.
- **Defined role profiles** – The training programme tailors modules to match the exact job description.
- **Performance feedback loops** – Employers provide continuous feedback on candidate skills, allowing course adjustments.

Apprenticeships can operate similarly, combining paid work with structured learning. They may be formally recognised as part of national vocational frameworks and supported by government incentives.

10.3.4 Multi-stakeholder consortia

Large-scale partnerships often involve multiple stakeholders. The **Work & Learn** programme illustrates how a tri-partite consortium—MolenGeek, Proximus and iKanbi—coordinates a two-phase training and employment pathway. Each partner contributes complementary assets (training, contact centre experience, job placements). A consortia management plan should define governance structures (see Chapter 3), including decision-making protocols, conflict resolution mechanisms and shared KPIs.

10.3.5 Memoranda of Understanding (MoUs) and legal considerations

Formalising partnerships with MoUs or contracts clarifies expectations and mitigates risk. Key clauses include:

- **Purpose and scope** – articulate the objective (e.g., training 20 cloud specialists per quarter and placing them in partner companies).
- **Responsibilities** – define what each partner provides (equipment, mentors, job roles, funding).

- **Data protection and confidentiality** – ensure compliance with GDPR and secure handling of participant information.
- **Duration and termination** – specify the agreement's length and exit clauses.
- **Reporting and evaluation** – align with the hub's monitoring framework (KPIs such as placement rates, diversity, time-to-hire).

10.3.6 Employer engagement strategies and wraparound support

Many training programmes claim employer involvement but fail to engage companies deeply. A Jobs for the Future (JFF) brief stresses that meaningful employer engagement requires going beyond occasional feedback sessions. Recommended strategies include:

- **Developing a comprehensive employer engagement strategy** – identify multiple engagement points (mentoring, advisory committees, curriculum design, co-delivery of training, hackathons) and assign relationship managers who maintain regular contact.
- **Engaging sectoral associations and workforce boards** – they amplify employer participation and can pool resources or create collective job guarantees.
- **Providing wraparound services** – supportive services such as transport stipends, childcare, language courses and mental health counselling remove barriers that disproportionately affect NEETs, women and other underrepresented groups. JFF notes that wraparound support is essential to maintaining participant engagement and ensuring completion.
- **Creating multi-entry pathways** – collaborate with other training providers to establish flexible entry points (boot camps, micro-credentials, apprenticeships) that feed into longer programmes.

10.3.7 Linking to formal VET and apprenticeships

The *diversITY* report highlights the importance of connecting non-formal digital training to formal vocational education and training (VET) pathways. Partnerships with public VET providers and universities offer several benefits:

- **Accreditation and recognition** – collaborative programmes can lead to national or EU-wide recognised credentials, increasing employability and mobility.
- **Apprenticeship integration** – formal apprenticeships combine work and study and often provide government subsidies to employers, making them attractive partnership tools.
- **Permeability** – creating articulation agreements allows graduates of non-formal courses to enter higher education or advanced technical degrees[9].

Hubs should explore opportunities to align their curricula with existing qualifications frameworks (e.g., European Qualifications Framework) and collaborate with certification bodies (e.g., CompTIA for cybersecurity, AWS Academy for cloud, Salesforce Trailhead for CRM) to ensure portability of skills. This linkage can also attract public funding and qualify participants for scholarships.

10.4 Pipeline to employment

Creating a talent pipeline involves guiding learners from outreach and training into employment or entrepreneurship. This section offers a step-by-step framework based on MolenGeek's practices and global best practices.

10.4.1 Outreach and candidate selection

- **Inclusive recruitment** – advertise across youth centres, community organisations, employment agencies and social media to attract NEETs, women, refugees and people with disabilities (see Chapter 9). Use accessible language and emphasise that no prior qualifications are needed, just motivation.
- **Orientation sessions** – organise Pathways-style programmes (see Chapter 5) to expose candidates to various digital careers and assess their aptitudes.
- **Selection criteria** – focus on motivation, availability and commitment rather than academic credentials; consider a brief trial project or challenge to evaluate perseverance and collaboration.

10.4.2 Phase 1: Early work experience or job shadowing

The **Work & Learn** programme demonstrates the value of an early job experience phase: participants spend four months learning contact-centre skills while simultaneously attending digital boot camps. This stage allows learners to earn income, apply soft skills and understand workplace dynamics. Elements include:

- **Job shadowing** – participants observe professionals in roles like IT support, customer success or digital marketing.
- **Paid work assignments** – in call centres, retail or administrative roles; this addresses financial needs and builds work readiness.
- **Soft skills workshops** – sessions on communication, professionalism and time management.

10.4.3 Phase 2: Intensive training and project-based learning

After initial work experience, participants enter a full-time training phase (6–11 months). Key components:

47. **Project-based learning** – training centres like MolenGeek emphasise real scenarios and group projects, encouraging collaboration and problem solving (see Chapter 5).
48. **Industry mentors** – professionals support students as project coaches. This fosters networks and offers insights into job expectations.
49. **Continuous assessment** – combine formative evaluations (code reviews, presentations) with summative assessments (final projects, technical tests) to track readiness.

10.4.4 Phase 3: Matching and placement

- **Employer speed-dating** – organise interview sessions where participants meet potential employers; this fosters quick matches and real-time feedback.
- **Internships or apprenticeships** – for roles requiring longer onboarding; these can be part of job guarantees.
- **Continuous support** – assign career coaches to assist with CVs, portfolios and interview preparation; provide psychological support and resources for job search.

10.4.5 Entrepreneurship track

Not all participants will pursue salaried work; some may want to start a business. Offer an entrepreneurial pathway including:

- **Business ideation workshops** – hackathons and design sprints help refine ideas.
- **Incubation** – provide coworking space, mentors and access to funding via micro-credit or venture partners.
- **Legal and administrative support** – assistance with company registration, intellectual property and accounting.

10.4.6 Wraparound support and inclusivity in pipelines

Even the best training will not lead to employment if participants face insurmountable practical barriers. JFF stresses that training providers should offer **wraparound services** such as transport vouchers, meals, childcare subsidies and digital devices to ensure that participants can attend and focus on learning. Additional inclusive practices include:

- **Accessibility and reasonable accommodations** – provide assistive technologies (screen readers, ergonomic equipment) and flexible schedules for people with disabilities.

- **Language support** – offer language classes or translation services for refugees and migrants; incorporate local languages into training materials.
- **Psychosocial support** – partner with mental health professionals to support participants dealing with stress or trauma; provide peer support groups.
- **Community building** – cultivate a sense of belonging through alumni networks, mentorship and community events (see Chapter 7). This social capital can be critical for job search and career resilience.

When designing job pipelines, hubs should collaborate with employers to ensure that workplaces are inclusive and accessible. Employers may need guidance on flexible working arrangements, inclusive recruitment policies and anti-discrimination practices.

10.5 Job guarantee and placement models

10.5.1 The TechGrounds model

The **TechGrounds** job guarantee is a hallmark of employer-led training. Initially, placement rates were only around 60 %; once employers were engaged upfront and matched with students, the rate increased to **80 – 85 %**. The model's key features are:

50. **Employer matching before training** – prospective students interview with partner companies that pledge to hire them upon graduation. The employer selects candidates based on potential rather than technical ability.
51. **Curriculum alignment** – once matched, course content is tailored to the specific job requirements; for example, a candidate matched to a Salesforce partner focuses on Salesforce administration and CRM processes.
52. **Accountability** – the employer monitors progress, and the training centre updates them on performance. If the candidate meets agreed milestones, the employer offers a contract at the end of training.
53. **Retention support** – after hiring, the training provider remains engaged, offering coaching, alumni networks and additional upskilling.

10.5.2 Lessons for replication

- **Employer capacity** – not all companies can guarantee hires; focus on those with clear talent pipelines or acute shortages.
- **Legal implications** – ensure compliance with labour law (e.g., probationary periods, minimum wages, collective agreements).
- **Participant expectations** – communicate clearly that employment is contingent on completing the programme and meeting performance criteria.

10.6 B2B synergies and return on investment (ROI)

10.6.1 Why companies partner

Companies engage with hubs like MolenGeek for various reasons:

1. **Access to diverse talent** – participants often come from underrepresented backgrounds; this aligns with diversity, equity and inclusion goals.
2. **Skills alignment** – employers influence curricula and ensure graduates have the specific technical skills required for immediate onboarding.
3. **Cost savings** – hiring from a hub reduces recruitment, onboarding and training costs; participants are often pre-screened and partially trained on company-specific tools.
4. **Corporate social responsibility (CSR)** – supporting inclusive training programmes enhances brand image and strengthens relationships with local communities.
5. **Innovation and co-creation** – involvement in hackathons and projects fosters new ideas and encourages staff to mentor or volunteer.

10.6.2 Measuring ROI for employers

To convince companies to partner, hubs should articulate the ROI. Metrics include:

ROI dimension	How to measure	Expected benefits
Time-to-hire	Compare average recruitment cycle (e.g., 6–8 weeks) with hiring through the hub (e.g., 1 week after speed-dating).	Faster onboarding, reduced vacancy costs.
Training costs saved	Estimate the cost of internal training for junior hires (boot camps, mentoring hours).	Graduates already have baseline skills, reducing the need for lengthy orientation.
Retention	Track employee retention over 12–24 months; graduates engaged via hubs often have strong loyalty due to the support network.	Lower turnover reduces recruitment and training costs.
Productivity	Evaluate time to reach full productivity versus typical junior hires.	Project-based learning and job-specific curricula accelerate ramp-up.

ROI dimension	How to measure	Expected benefits
Diversity impact	Monitor workforce composition changes (gender, ethnicity, socio-economic background).	Diversity correlates with innovation and improved financial performance.

10.6.3 Sustainability for hubs

From the hub perspective, B2B synergies contribute to financial sustainability. Some hubs adopt a **fee-for-service** model: companies pay to access the talent pipeline or to customise training programmes. MolenGeek's self-sustaining model involves companies financing training programmes and hiring graduates directly, which reduces dependency on public funding. Hubs may also generate revenue by:

- **Providing corporate training** – upskilling employees in new technologies (e.g., cloud migration, digital marketing).
- **Licensing curricula** – offering ready-made training modules to other education providers.
- **Hosting innovation events** – hackathons or innovation challenges sponsored by companies, generating sponsorship fees.

10.6.4 Policy incentives and public support

Public policies and funding instruments can significantly enhance employment partnerships. Several mechanisms exist:

- **Apprenticeship subsidies** – Many European countries offer wage subsidies, tax credits or social security exemptions to employers who hire apprentices. These reduce the cost of on-the-job training and encourage companies to hire junior talent. The Erasmus+ scheme supports transnational apprenticeships, allowing participants to train abroad while remaining employed.
- **Training vouchers and skills funds** – Governments may provide vouchers that individuals or employers can use to purchase training from accredited providers. Examples include Italy's *Fondo Nuove Competenze* and Belgium's *Vlaamse opleidingsincentives*. Hubs can register as providers to tap into these funds.
- **Regional development grants** – Economic development agencies offer grants for projects that create jobs and promote digital innovation. Such grants can co-finance equipment, curricula development or outreach programmes.
- **Employment incentives for underrepresented groups** – Some regions offer financial bonuses to employers who hire women, migrants, people with

disabilities or long-term unemployed individuals. Partners can incorporate these incentives into job guarantee programmes.

- **Public-private partnerships** – Governments may co-found hubs or provide facilities and shared services. For example, municipal co-working spaces or innovation districts can host training centres at reduced rent.

Hubs should survey national and regional incentives, connect with public employment services and integrate these opportunities into partnership proposals. Demonstrating alignment with policy goals (e.g., lowering youth unemployment, promoting digital inclusion) increases the likelihood of support.

10.6.5 Risk management and diversification

Dependence on a small number of partners or sectors can jeopardise a hub's sustainability. To manage risk:

- **Diversify partnerships** – Build relationships across industries (healthcare, finance, logistics, public sector, creative industries) to spread placement opportunities. This reduces vulnerability to sector-specific downturns.
- **Stagger partnership commitments** – Avoid the expiration of multiple MoUs or job guarantees at the same time; maintain a pipeline of prospective partners.
- **Monitor labour market trends** – Regularly assess whether training offerings align with emerging job categories (e.g., AI ethics, XR development, green tech). Adjust curricula and partnerships accordingly.
- **Financial resilience** – Maintain reserve funds and explore multiple revenue streams (training fees, sponsorships, consulting). Pursue multi-year grants and endowments to cushion against funding fluctuations.
- **Succession planning** – Identify staff members who can step into partnership management roles if key personnel depart; cultivate a culture of knowledge sharing to ensure continuity.

10.7 Case studies

10.7.1 Work & Learn (Proximus – iKanbi – MolenGeek)

Programme design: The two-phase **Work & Learn** project, launched by Proximus, iKanbi and MolenGeek, trains vulnerable job seekers for ICT roles. In phase 1, participants work for four months in a contact centre to learn basic communication and digital skills while receiving income. In phase 2, participants spend eleven months at MolenGeek's BorgerHub undergoing intensive AWS cloud training.

Outcomes: Participants earn an AWS certification and can secure roles within Proximus or iKanbi at the programme's conclusion. The project addresses a labour shortage of more than **10,000** ICT vacancies and demonstrates that integrated job experience and training fosters employability.

Replicable insights:

Provide paid work experience at the start to build confidence and support living costs.

Engage employers in mentoring and contact-centre operations.

Offer robust technical training (cloud, cybersecurity) that leads to industry certifications.

Create a direct pathway to employment with partner companies.

10.7.2 Cybersecurity training partnership (MolenGeek – Microsoft)

Programme design: In 2023, MolenGeek partnered with Microsoft to deliver specialised cybersecurity training. The programme teaches students to detect and mitigate cyber threats, aligning with industry demands. Microsoft provides expertise, tools and potential employment opportunities, while MolenGeek supplies the training environment and recruits from underrepresented populations.

Outcomes: The partnership taps into a critical skills gap, as cybersecurity jobs are among the hardest to fill. After training, learners can be hired by Microsoft or its partners. This collaboration contributes to MolenGeek's 85 % positive exit rate.

Replicable insights:

Align training with a partner's strategic business area (e.g., cybersecurity).

Use industry-recognised certifications (e.g., Microsoft Cybersecurity Architect).

** Create targeted recruitment campaigns focusing on NEETs and women to expand diversity.*

10.7.3 PwC and MolenGeek: governance and talent pipeline

Programme design: PwC collaborates with MolenGeek by providing governance assessment, financial planning, legal advice. PwC also hired a MolenGeek alumna as a Salesforce expert and continues to sponsor training programmes.

Programme design: TechGrounds pioneered a two-step approach to recruit and train hidden talent in the Netherlands. The **Pathways orientation programme** helps unemployed or underemployed individuals explore IT careers and determine their fit. Participants learn the basics of programming (HTML, CSS, cloud, CRM, cybersecurity,

online marketing and UX design) and discover **151** different IT roles across **10** domains. Those who complete Pathways move on to the **Academy**, a 3- to 6-month training course that includes a job guarantee. Before starting the Academy, participants interview with potential employers.

Outcomes: More than **1,000** people have attended Pathways and over **350** have completed the Academy. After matching employers to students before training, the placement rate increased to **80 – 85 %**. Employers commit to hiring participants who successfully complete the programme, and curricula are tailored to the job roles.

Replicable insights:

Offer a low-barrier orientation programme that demystifies tech careers, teaches learning-to-learn skills and helps participants identify their interests and aptitudes.

Use orientation data to match candidates with employers ahead of formal training and co-design the curriculum around specific job roles.

Integrate a job guarantee into contracts with employers to increase accountability and motivate participants.

Provide continued support after placement (alumni network, upskilling, mentorship) to improve retention and career progression.

10.8 Implementation toolkit

The following practical steps guide new hubs in building and sustaining employment partnerships. This toolkit is designed to be adapted to local contexts.

1. **Employer mapping template:** Create a spreadsheet listing employers by sector, size, contact person, known vacancies, diversity initiatives and potential partnership type. Conduct periodic updates.
2. **Partnership engagement plan:** For each priority employer, define a tailored outreach strategy: describe the value proposition (talent pipeline, CSR, innovation projects), propose specific collaboration options (mentoring, job guarantees, curriculum design), and schedule meetings.
3. **MoU template:** Provide a standard memorandum of understanding covering purpose, roles, data protection, evaluation, timeline and termination. Adapt as needed for different partners (corporate, public sector, SMEs).
4. **Job guarantee guidelines:** Outline how to implement a job guarantee programme: (a) identify roles and employers; (b) design selection process; (c) align curriculum; (d) define performance milestones; (e) provide retention support.

5. **Internship / apprenticeship framework:** Describe internship duration, compensation, learning outcomes, supervision, evaluation and potential transition to employment.
6. **Tracking and evaluation:** Establish a dashboard tracking recruitment, training and employment outcomes. Use metrics such as positive exit rate, diversity (gender, ethnicity), time-to-hire, employer satisfaction and retention. Regularly analyse data and adjust programmes accordingly.
7. **Alumni and employer networks:** Develop an alumni platform where graduates can share job openings, experiences and mentorship opportunities. Host periodic networking events where employers meet alumni and trainees.
8. **Communication toolkit:** Provide employers with a press kit and success stories to share internally and externally. Celebrate hires on social media and in partner communications to enhance visibility.
9. **Wraparound service checklist:** Develop an inventory of support services available to participants (transport subsidies, meals, childcare, mental health counselling, assistive technology). Assign staff to coordinate service delivery and track uptake. Secure funding or partnerships to cover these costs (foundations, municipal programs, corporate CSR budgets). Adapt services to different cohorts (e.g., evening childcare for single parents, travel bursaries for participants from rural areas).
10. **Cross-programme collaboration:** Create agreements with other digital skills initiatives (public VET, NGOs, vocational schools) for referral pathways and shared participants. For example, a short coding bootcamp may feed into a longer Molengeek programme, or a university may award credit for hub courses. Formalise data-sharing agreements and adopt compatible curricula to reduce duplication and maximise impact.

10.9 Monitoring, evaluation and continuous improvement

Just as training programmes benefit from clear metrics, employment partnerships require monitoring and evaluation to ensure they deliver on their promise. Key actions include:

- **Define KPIs** – baseline measures (starting unemployment rates, current diversity levels), process measures (number of employers engaged, job guarantee agreements), and outcome measures (placement rate, job retention at 6 and 12 months, average salaries, promotions).
- **Collect data ethically** – ensure GDPR compliance and obtain participant consent; anonymise sensitive information; share aggregated data with partners.

- **Conduct employer surveys** – gather feedback on candidate preparedness, recruitment experience, and suggestions for improving training.
- **Hold review meetings** – convene quarterly partnership review sessions to discuss progress, challenges and course adjustments.
- **Benchmark against peers** – compare outcomes with similar training initiatives and industry standards; adjust strategies to maintain competitiveness.
- **Close the loop** – integrate insights from employers and graduates into curriculum revisions (see Chapter 5) and community programmes (see Chapter 7).

10.10 Key takeaways and next steps

Employment and partnership development lie at the heart of the MolenGeek model. The following principles summarise the chapter:

1. **Demand-driven training** ensures programmes align with market needs, addressing the EU's Digital Decade targets and local labour shortages.
2. **Inclusive recruitment** brings NEETs, women, refugees and other underrepresented groups into the tech workforce (see Chapter 9) and prepares them for careers.
3. **Employer mapping and engagement** enable hubs to identify opportunities and tailor their offer to different sectors and company types.
4. **Partnership models**, including resource sharing, co-designed curricula, job guarantees and multi-stakeholder consortia, provide a blueprint for collaboration.
5. **Integrated pipelines** combine early work experience, project-based training and matching mechanisms to prepare candidates for work and entrepreneurship.
6. **Job guarantee programmes** improve placement rates and require employer pre-commitment.
7. **B2B synergies and ROI** benefit both hubs and employers through cost savings, faster hiring, diversity and innovation.
8. **Case studies** illustrate replicable practices (Work & Learn, cybersecurity training with Microsoft, PwC partnership) and highlight successful outcomes.
9. **Implementation tools** provide practical guidance on mapping, partnering and monitoring results.
10. **Continuous improvement**—through data analysis, employer feedback and iterative design—ensures that the employment and partnership strategy remains relevant, inclusive and sustainable.

By following this framework, new hubs can transform digital skills training into economic opportunities, empower participants and forge lasting alliances with industry. The result

is a scalable, inclusive ecosystem where learning, innovation and employment reinforce each other and contribute to the broader goals of Erasmus+ and the Digital Decade.

Looking ahead, employment and partnerships will remain dynamic fields. As technologies evolve, new job roles will emerge and require updated training modules; as labour markets fluctuate, partnerships must adapt to shifting demands. Hubs should maintain a culture of **experimentation and learning**, testing novel engagement models (e.g., micro-internships, remote apprenticeships, cross-sector secondments) and sharing results with the broader community. Building a reputation as a **trusted intermediary**—equally attentive to learners’ aspirations and employers’ needs—will attract more stakeholders and ensure that the hub’s impact endures beyond the lifecycle of any individual project or grant. Ultimately, the true measure of success will be whether graduates not only find jobs but thrive in their careers, contribute back to the ecosystem and catalyse a virtuous cycle of inclusion and innovation.

Chapter 11. Peer Learning & Capacity Building

The **MolenGeek International** project rests on the idea that no single actor holds all the knowledge needed to build inclusive tech ecosystems.

Peer learning and capacity building therefore sit at the heart of the model: hubs learn from each other, staff acquire new skills from colleagues, and learners support one another's progress.

This chapter provides a framework for cultivating vibrant communities of practice (CoPs), designing peer-learning initiatives across MolenGeek's hubs, and building the internal capacity to deliver and scale programmes.

It draws on international research on communities of practice, digital learning and capacity development and adapts these insights to the Erasmus+ context.

11.1 Why peer learning and capacity matter

Mutual learning fuels innovation

Modern learning research shows that people acquire most of their knowledge through experience and interaction with peers rather than through formal lectures.

The **70/20/10** model, summarised by the UN-Habitat capacity-building guide, states that **70 % of learning comes from job-related experiences, 20 % from human interactions, and only 10 % from formal training.**

Peer learning (defined as the "acquisition of knowledge and skill through active helping and supporting among status equals" is thus both effective and cost-efficient.

In the digital age, peer-to-peer learning has become more accessible and collaborative, allowing learners to **connect, share resources, and engage in discussions regardless of location.**

Aligning with MolenGeek's values

MolenGeek's pedagogy champions **collective intelligence and mutual help**, rejecting the notion of knowledge gatekeepers.

The **"Three Before Me"** policy used by Digital Harbor Foundation illustrates this ethos: learners are encouraged to consult at least three sources (peers, educational resources or the internet) before asking a facilitator.

This approach encourages self-reliance, builds confidence and reinforces peer networks. Similarly, the **learn-by-doing** philosophy insists that staff and learners develop skills through practice, iteration and reflection.

These principles underpin the peer-learning model presented in this chapter.

Building durable capacity across hubs

Erasmus+ Work Package 3 (WP3) commits partners to **peer-to-peer learning and staff exchanges**.

To replicate the MolenGeek model across Europe, partners must develop **internal capacity**: training educators, programme managers and support staff to deliver high-quality courses, events and services.

Capacity building ensures that knowledge does not remain concentrated in a single location but is shared across the network.

Communities of practice (CoPs) and learning circles are proven vehicles for such sharing: research from RTI International notes that vibrant CoPs are decentralised, feature skilled moderation, foster reciprocity among members and enjoy leadership support.

When properly resourced, CoPs allow partners to **collectively design programmes, share lessons learned and co-create innovation engines**, particularly when travel or formal meetings are constrained.

11.2 Guiding principles for peer learning

Create decentralised, inclusive communities

Successful peer learning requires **decentralised communities where no single person controls access or content**.

This decentralisation fosters ownership and prevents the emergence of gatekeepers.

The European Commission's *Communities of Practice Playbook* identifies five **success conditions** that thriving communities share: (1) a **shared vision**, (2) active **participation and engagement**, (3) effective **knowledge retention and circulation**, (4) **trust and a sense of community**, and (5) **inclusive communication**.

Communities must continually adapt their mission and objectives, co-own decisions and engage in boundary-spanning practices to sustain momentum.

Ensure adequate resources and leadership commitment

Communities do not flourish on goodwill alone.

Wenger-Trayner and colleagues emphasise that CoPs need **adequate resources**—dedicated time and budget for coordination, facilitation and knowledge curation—if they are to survive.

They also highlight **high expectations, voice and engagement, strategic conversations** linking community insights to organisational strategy, an **ongoing learning culture**, and formal **recognition of contributions** as key success factors.

Conversely, top-down control, perfunctory participation, micromanagement and neglect undermine communities.

Leadership must sponsor communities, provide space for experimentation and protect them from shifting priorities.

Cultivate trust and mutual aid

Trust is the foundation of peer learning.

The EU playbook notes that communities thrive when members **feel familiar with one another, participate in transparent decision-making and experience an informal, welcoming atmosphere.**

Inclusive, diverse membership and clear communication norms help build this trust.

Similarly, the BMJ account of a digital community of practice in global health underscores how **equal funding and intentionally horizontal partnerships** turned a centralised capacity-building project into a peer-to-peer learning platform.

As knowledge and confidence grew, the original technical lead shifted to a facilitation role, enabling multidirectional learning across institutions.

Focus on active participation and reciprocal benefits

Participation should not be passive.

The Paradiso article suggests that effective P2P learning requires **clear guidelines, access to collaborative tools, encouragement of active participation and facilitated group work.**

The Whatfix blog adds that peer-to-peer learning decentralises knowledge, accelerates upskilling and reduces reliance on formal training.

Benefits include **faster knowledge transfer, better skill retention, lower training costs, higher engagement and real-time problem solving.**

Organisations can nurture this by identifying knowledge champions, designing standardised formats (e.g., “lunch-and-learn” sessions, communities of practice, mentoring programmes), integrating learning into the flow of work and recognising peer contributions.

Build inclusive and equitable CoPs

CoPs should reflect the diversity of their communities.

The BMJ article warns that historically, global partnerships have relegated partners from the Global South to subordinate roles.

By shifting to an online CoP with equal funding and shared ownership, partners created **horizontal and inclusive collaboration**, enabling all voices to be heard and fostering the co-production of knowledge.

Molengeek hubs should therefore design peer-learning initiatives that ensure all

partners—large or small, established or new—have equal opportunities to shape agendas and contribute.

11.3 Designing MolenGeek’s peer-learning framework

A community architecture aligned with Work Package 3

WP3 requires the creation of **three working groups** (Belgium, Netherlands, Italy) and continuous exchanges.

We propose the following architecture:

54. **Domain-specific CoPs** – separate communities for key functions: training & pedagogy, community management, events & hybrid technology, inclusion & diversity, employment & partnerships, data & impact.
Each CoP has a core group (3–5 members drawn from all partners) responsible for convening sessions, curating resources and liaising with the international lead.
55. **Transversal working groups** – cross-disciplinary teams tackling shared challenges (e.g., VR experimentation, inclusion strategies, sustainability). These groups produce deliverables such as toolkits and policy briefs.
56. **Annual peer-learning summits** – rotational events (physical or virtual) where all hubs present innovations, share failures, run workshops and decide on collective priorities. These may coincide with hackathons or the European Geek Summit.
57. **Digital peer-learning platform** – Odoo, Notion or a digital adoption platform integrated with Molearning to host discussions, resources, asynchronous mentoring and micro-learning modules.
Facilitators ensure channels remain active, moderate questions and encourage contributions.

Setting clear goals and guidelines

Each community must define its **purpose, objectives and expected outputs**.

For example, the *Training & Pedagogy* CoP might aim to co-develop new course modules, share best practices for micro-credentialing, and review evaluation rubrics.

The EU playbook emphasises the need for a **shared vision** and **co-ownership**; members should periodically review and refine these goals through participatory feedback loops.

Similarly, establishing **participation guidelines**—frequency of meetings, expected contributions, code of conduct—creates clarity and fosters accountability.

Identify knowledge champions and mentors

Within each hub, map staff members who excel in specific domains (curriculum design, cloud operations, event logistics, career coaching) and formally recognise them as **knowledge champions**.

Encourage these champions to **document workflows, host sessions and mentor peers**, turning tacit knowledge into scalable assets.

Alumni can also act as mentors: inviting graduates who have transitioned to employment back into the community provides relatable role models and real-world insights.

Standardise learning formats and tools

To avoid fragmentation and information overload, implement **repeatable formats** for peer-learning sessions:

- **Lunch-and-learns**: short presentations by staff, alumni or partners followed by Q&A;
- **Project retrospectives**: reflective sessions where teams dissect completed programmes or events to identify successes, challenges and improvements;
- **Peer mentoring**: experienced coaches guide new hires or new hubs through specific tasks;
- **Communities of practice meetings**: regular cross-site calls with a structured agenda, rotating facilitation and note-taking responsibilities.

Provide **collaborative tools** to support these formats: video conferencing (Zoom/Meet), shared documents (Google Docs/Notion), asynchronous discussion forums (Odoo/Discourse), and interactive boards (Miro/Padlet).

Ensure that tools are accessible in all partner languages and that members receive training on their use.

Encourage active participation and reciprocity

Facilitators should encourage members to **ask questions, share feedback and contribute resources**.

Use simple policies like “Ask two peers before the coach” (a variation of the “Three Before Me” policy) to stimulate peer support and prevent dependency on trainers.

Promote a culture where **everyone is both a learner and a teacher**, regardless of seniority.

Recognition programmes—such as shout-outs in meetings, badges on digital platforms or small tokens—can reinforce contributions.

Foster inclusive, horizontal collaboration

Take lessons from the global health CoP described in *BMJ Global Health*: digital platforms enabled **multidirectional peer-to-peer learning and knowledge co-production**, and equal funding ensured that all partners—regardless of geography—had a voice.

In MolenGeek's context, allocate a **common budget for peer-learning activities**, ensure that facilitation roles rotate across hubs, and design translation and accessibility support so that no group is marginalised.

Adopt transparent decision-making processes and participatory governance, allowing partners to propose topics and vote on priorities.

11.4 Building capacity: from trainer training to organisational learning

Train-the-trainer (ToT) programmes

To replicate courses across countries, local trainers must master both **content** and **facilitation methods**.

A structured ToT programme should include:

1. **Technical mastery**: deep dives into each module of the seven core programmes (Full-stack, Marketing, Salesforce, Cybersecurity, Cloud, Agile, Blockchain) and Pathways.
2. **Pedagogical techniques**: project-based learning, peer instruction, inclusive facilitation, assessment rubrics, and digital literacy.
3. **Cultural adaptation**: strategies for localising content to different languages and cultural contexts.
4. **Mentoring and observation**: trainees co-facilitate sessions with experienced coaches, receive feedback, and gradually assume full facilitation roles.
5. **Community membership**: new trainers automatically join the relevant CoP and commit to contributing to its knowledge base.

Growing new leaders and knowledge stewards

Communities thrive when leadership is distributed.

Identify and nurture **emerging leaders**—individuals who consistently contribute, facilitate discussions and mentor others.

Provide them with opportunities to lead sessions, represent the community in governance meetings and participate in external conferences.

Offer **capacity-building workshops** on facilitation, conflict resolution, inclusive

communication and data-driven decision-making, ensuring that the next generation of leaders can steward the community.

Institutionalise learning

To avoid knowledge loss, institutionalise peer learning through **documentation and knowledge management**.

Encourage communities to produce **guides, FAQs, annotated code samples, case studies and recorded sessions**.

Host these on a shared repository accessible to all partners, with metadata to facilitate search.

Adopt open licences where possible (e.g., CC BY-NC-SA) to encourage reuse.

Regularly review and update materials through community feedback loops.

11.5 Monitoring, evaluation and continuous improvement

Indicators of successful peer learning

To track progress, define metrics aligned with the EU playbook's success conditions and WP3 objectives:

Domain	Indicator (examples)
Shared vision & co-ownership	Percentage of members who can articulate the community's mission; number of partners contributing agenda items or leading sessions
Participation engagement	Number of active participants per session; diversity of speakers (gender, organisation, role); frequency of interactions on digital platforms
Knowledge retention & circulation	Number of resources produced (guides, recordings); downloads or reuse statistics; adoption of shared practices by other hubs
Trust & sense of community	Member satisfaction surveys; number of peer-mentoring connections; qualitative feedback indicating trust and psychological safety
Inclusive communication	Availability of materials in multiple languages; accessibility features (e.g., captions); participation from under-represented groups

Collect quantitative data via platform analytics and attendance logs, and qualitative data via surveys and focus groups.

Use these insights to adjust formats, topics and resource allocation.

Regular reflection and adaptation

Learning communities are dynamic.

Schedule **quarterly reflection sessions** where core groups review metrics, discuss challenges and successes and adjust plans.

Invite external experts or alumni to share fresh perspectives.

Encourage a culture of experimentation: pilot new formats (e.g., hack-and-learn sprints, lightning talks) and scale those that resonate.

Addressing obstacles and pain points

The EU playbook highlights several common **pain points** in CoPs: difficulty combining online and offline interactions, lack of resources and recognition, challenges retaining knowledge, and limited participation.

Mitigation strategies include:

- **Hybrid convening strategies** that blend in-person retreats with regular virtual meetings;
- **Resource pooling** across hubs to fund facilitation and translation;
- **Incentive programmes** for community managers and contributors;
- **Knowledge management plans** detailing how outputs are captured, stored and shared;
- **Awareness campaigns** that demonstrate how participation enhances productivity and career growth.

11.6 Implementation toolkit

To facilitate adoption, we provide templates.

11.7 Key takeaways

- **Peer learning is essential** – People learn most effectively through experience and interaction, making peer learning a cornerstone of the MolenGeek model.
- **Communities of practice need careful cultivation** – Success requires decentralisation, inclusive participation, adequate resources, leadership sponsorship and clear communication.

- **Active participation and reciprocity drive outcomes** – Establishing clear guidelines, providing collaborative tools and encouraging active engagement creates a vibrant peer-learning environment.
- **Capacity building strengthens the network** – Train-the-trainer programmes, staff exchanges and emerging leader development ensure knowledge flows across hubs and scales sustainably.
- **Continuous monitoring and adaptation** – Use data to measure participation, knowledge retention and inclusivity; refine practices through regular reflection and experimentation.
- **Inclusivity and equity are non-negotiable** – Design peer-learning initiatives that provide equal voice to all partners, invest in translation and accessibility, and create horizontal partnerships.

By embedding these principles into the fabric of MolenGeek's international ecosystem, hubs will not only replicate an effective model but also co-create an adaptive learning community capable of evolving with technological and societal changes.

Chapter 12 – Monitoring, Evaluation & Impact

12.1 Why monitor and evaluate?

Monitoring and evaluation (M&E) are often viewed as an administrative burden or a box-ticking exercise for funders. In reality, they are essential tools for steering a complex social-impact programme like MolenGeek International. A growing body of practice in development and digital inclusion shows that M&E should be embedded throughout the project life cycle, not just at the end. As ActivityInfo's inclusive M&E guide notes, the purpose of M&E is changing: it is now seen as an integral part of project management that supports improvement, learning and accountability to stakeholders. Evaluations that satisfy donor requirements without contributing to learning miss the opportunity to improve programmes, to respond to participants' actual needs and to build trust with communities.

For digital inclusion and tech-training initiatives, M&E provides evidence that goes far beyond counting seats filled. The National Digital Inclusion Alliance (NDIA) reminds practitioners that evaluation should measure whether programmes are meeting their intended impact, help to track services and anticipate capacity needs and justify additional funding. A thoughtful evaluation answers questions such as: *Are community members satisfied with the services? Are programmes preparing participants for current*

and emerging technologies? Do our timings and methods reduce barriers to participation? Evaluations also help assess equity dimensions—for example, whether participants experience fair and equitable service and whether the programme advances racial, class and community equity.

Continuous improvement

M&E should be viewed as a **continuous, adaptive process** rather than an occasional activity conducted at reporting deadlines. NDIA emphasises the importance of formative assessments and regular check-ins to identify areas of growth, adaptation and success[5]. Developing the evaluation plan at the same time as the programme scope ensures that evaluation questions, data sources and responsibilities are built into everyday operations. This rolling cycle allows programmes to adjust quickly when data show that particular approaches are ineffective or when participants' needs evolve.

Inclusion and accountability

Because MolenGeek International targets groups that are often marginalised—young NEETs, women, migrants, minorities and refugees—monitoring must be inclusive. Inclusive M&E frameworks recognise that people have multiple intersecting identities and that discrimination can affect participation and outcomes. Evaluations therefore need to disaggregate data by gender, age, origin, disability and socio-economic status. Mainstreaming inclusion means ensuring that all groups are visible and meaningfully represented in data collection and analysis. ActivityInfo's guide stresses that including affected populations in programme management enhances responsiveness and sustainability—and the same is true for evaluation. When participants are involved in designing surveys and interpreting results, programmes can better understand whether interventions are genuinely removing barriers.

12.2 Key indicators and data sources

Evaluations should measure progress across four levels:

58. **Inputs and resources** – staff time, volunteer hours, funding, equipment, digital licenses and VR headsets. These metrics track the resources invested in training and community activities.
59. **Outputs** – the direct products of activities, such as number of participants in each training programme, number of hackathons or Geek Talks held, number of mentors trained, etc.
60. **Outcomes** – the short- and medium-term changes that result from the programme, including skills gained, confidence improved, participants completing training, or obtaining certifications (e.g., AWS, Salesforce). For digital inclusion

programmes, outcomes may also include participants' progression to further learning or employment. Programmes should track retention and completion rates disaggregated by gender and other identities.

61. **Impact** – longer-term changes at the individual or community level: participants securing sustainable employment (positive exits), increases in income or stability, improved well-being, reduced isolation, increased civic engagement, or the creation of new tech start-ups. Social impacts also include improvements in health management via digital tools and improved access to services.

Suggested indicators

For each pillar of Molengeek International, evaluators should select a set of indicators aligned with the theory of change. Some examples include:

- **Participation and diversity:** number of enrolments and completions per programme; percentage of participants from target groups (NEETs, women, migrants, etc.); number of mentors and volunteers; gender balance of mentors and leadership; share of participants with disabilities.
- **Skills development:** pre- and post-assessments of digital competencies (e.g., coding, digital marketing, cloud administration, cybersecurity); number of certifications awarded; self-reported confidence in tech skills.
- **Employment and entrepreneurial outcomes:** percentage of graduates securing employment or internships within six months of completion; number of participants starting their own business; number of participants entering further education; retention in employment after one year.
- **Community engagement:** attendance at events (hackathons, Demo Days, Coffee Talks); number of events organised; number of mentors and alumni engaged; reach and activity of Odoo/Discord channels; satisfaction with community support.
- **Inclusion and accessibility:** measures of user satisfaction with accessibility features (e.g., accessible facilities, translation services, flexible schedule); number of requests for accommodations met; demographic breakdowns of beneficiaries (gender, age, nationality, socio-economic status).
- **Social impact:** improvements in health and well-being, reduced social isolation, improved financial resilience; increased digital confidence among family members of participants; improvement in local digital ecosystem indicators (e.g., NEET rates, regional employment rates).

Data sources

- **Programme records:** sign-in sheets, registration forms, attendance logs, digital learning platforms (e.g., Molearning), Odoo activity logs, VR user metrics.
- **Surveys and feedback forms:** satisfaction surveys at the end of each course or event; follow-up surveys at 6 and 12 months to track employment and further learning; digital skills self-assessments; ongoing progression surveys that collect demographic data and measure behavioural change.
- **Monthly activity reports:** regular surveys of partner organisations to collect quantitative evidence of the number of organisations, digital champions and end users involved.
- **Qualitative methods:** focus groups, interviews and case studies with participants, alumni, mentors and employers to capture stories of change and identify barriers; narrative reporting emphasising strengths, assets and lessons learned. These methods provide context that numbers alone cannot.
- **External data:** labour market statistics, NEET rates, digital skills indices, and local economic indicators to contextualise the programme's impact.

12.3 Building an evaluation framework

A robust evaluation framework ties together the theory of change, evaluation questions, indicators, data sources, and responsible parties. The Global Schools Forum's Monitoring, Evaluation and Learning (MEL) Framework emphasises that the starting point should always be the theory of change, which outlines how the organisation plans to achieve its goals. From there, teams should identify the questions they want to answer, why they are important, how to find answers, and who is responsible for collecting and analysing data. The framework suggests building a spreadsheet or matrix with the following columns:

62. **Monitoring questions:** what aspects of the programme do we want to examine? These questions should be prioritised based on relevance to the organisation's goals.
63. **Purpose:** why is each question important? How will the information be used?
64. **Success criteria:** what does good look like for each question? The criteria serve as benchmarks for progress.
65. **Data sources and indicators:** where will we find the information to answer each question? Indicators translate data into measurable evidence.
66. **Frequency:** how often will data be collected (e.g., monthly, quarterly, annually)?
67. **Owner:** who is responsible for collecting, analysing and reporting the data?

This structured approach ensures that evaluation is purposeful and that data are linked to decisions and improvements. It also helps teams allocate responsibilities and plan data collection activities throughout the programme cycle. Evaluation plans should align with the resources and capabilities of each hub and be realistic about what can be measured. Where capacity is limited, partnering with universities or research organisations can bring additional expertise; the Digital Inclusion Toolkit notes that programmes lacking in-house skills can partner with organisations experienced in research and evaluation.

Setting up a steering group

For larger evaluation efforts, especially those spanning multiple partners, it is beneficial to establish a steering or advisory group. The UK's Digital Inclusion Evaluation Toolkit recommends forming a steering group to oversee the evaluation process, plan the sequence of tasks, engage stakeholders and ensure the evaluation remains focused on beneficiaries. The steering group should include representatives from all partners (e.g., MolenGeek, TechGrounds, TechStation, local authorities, employers), community members and, where possible, independent experts. Their tasks include approving the theory of change, finalising indicators, overseeing data collection, reviewing findings and championing the evaluation results within their organisations.

Theory of Change

Developing or updating the theory of change (ToC) at the outset is critical. The ToC maps the pathways through which inputs and activities lead to outputs, outcomes and impact. MolenGeek International's ToC will show how inclusive training, community support and events lead to increased skills, employment and social inclusion. The ToC helps identify assumptions and external factors, which should be monitored. Linking indicators to specific outcomes in the ToC ensures that data collection remains focused on the programme's objectives. The ToC should be revisited regularly as programmes evolve.

12.4 Tools and methods

NDIA's Digital Inclusion Impact Aggregator

To build a scalable evaluation system across multiple hubs and programmes, MolenGeek International can adapt the NDIA's **Digital Inclusion Impact Aggregator**, a tool designed to assess digital inclusion ecosystems. The aggregator comprises three components: an **evaluation framework with nested logic models**, an **impact evaluation database**, and a **data collection guide**. The logic models organise evaluation metrics at the ecosystem, measurable objective and strategy levels. The

database (available as an Airtable template and open-source versions) aggregates data from partners and generates reports on progress towards digital equity goals. The data collection guide provides templates and instructions for gathering data from direct service providers and capacity-building programmes.

Administrators and evaluation partners can customise the aggregator's templates to align with local goals and indicators. Direct service partners use the data collection forms during programme delivery, and the aggregated data feed into reports for funders and policymakers. Adopting a modular tool like this reduces duplication of effort and ensures that each hub collects consistent data. For the MolenGeek ecosystem, the aggregator could be expanded to include specific tables for training programmes, events, mentorship activities and employment outcomes.

Digital Inclusion Evaluation Toolkit (UK)

The UK **Digital Inclusion Evaluation Toolkit** provides a step-by-step guide to demonstrate the social impact of digital inclusion projects. It outlines four stages: **planning the evaluation, collecting data, analysing data and using the data**. Planning includes forming a steering group, developing a theory of change and setting indicators. Data collection guidance covers survey design, sampling, measuring change and ensuring confidentiality. Analysis involves converting survey responses to numerical values and understanding how many people experienced change. The final stage emphasises using findings to improve programmes and share results.

Three principles underpin this toolkit: **stakeholder participation, transparency, and outcome-based measurement**. Stakeholder participation ensures that beneficiaries and other stakeholders are involved from the start and that evaluation focuses on what matters most. Transparency builds confidence in the results, while outcome-based measurement distinguishes between activity outputs and actual change. Programmes should measure how participants' digital skills and quality of life have improved, not just how many attended a course.

Surveys and mixed-method approaches

Evaluations should employ a combination of quantitative and qualitative methods to capture both breadth and depth of impact. The Digital Inclusion Toolkit recommends **ongoing progression surveys** to collect demographic information and track behavioural change. These surveys can be integrated into registration and follow-up processes. **Monthly activity surveys** gather quantitative evidence of the number of organisations, digital champions and end users involved. Programmes should complement surveys with **case studies** that document individual journeys and capture the nuanced impacts of training on personal and professional lives. Focus groups and

interviews with participants, alumni, trainers and employers can reveal the reasons behind success or drop-out and provide actionable insights.

Digital tools can streamline data collection: online survey platforms, digital forms integrated into Molearning, Odoo or Notion, and analytics dashboards that track progress in real time. However, programmes should also ensure that paper-based options are available for participants who may not be comfortable completing surveys online.

Dashboards and reporting

Regularly updated dashboards help teams monitor key indicators and identify trends. The evaluation team should design dashboards that display completion rates, employment outcomes, diversity metrics, training quality scores, event attendance, and user feedback. Each hub should have access to a real-time dashboard, while a central aggregator collates data across sites. Dashboards should allow filtering by site, programme, cohort and demographic categories. Reporting tools should automatically generate summary reports for funders and partners. The NDIA Impact Evaluation Database can be adapted for this purpose.

12.5 Inclusive monitoring

Inclusion must be woven into every aspect of M&E. The ActivityInfo guide highlights that the aim of development and humanitarian action is to improve people's lives and that programmes must reach those most marginalised. Therefore, evaluations need to identify which groups may be excluded and design indicators and data collection methods accordingly. Baseline analyses should carefully consider power relationships and the causes of discrimination and inequality in the target context. Data should be disaggregated by gender, age, disability, ethnicity, migration status and other relevant characteristics. Inclusive indicators measure whether changes are experienced equally by different groups (e.g., comparing employment outcomes for refugees versus non-refugees).

Programmes should also incorporate **twin-track approaches** to evaluation: mainstreaming inclusion across all indicators while using specific indicators and targeted analyses for groups that face particular barriers. Evaluation teams must ensure data collection tools are accessible—available in multiple languages, accessible formats (e.g., large print, audio), and culturally sensitive. Privacy and dignity should be protected, especially when stories of marginalised participants are shared.

12.6 Learning and adaptation

Evaluation is not complete until findings inform decisions. NDIA emphasises using evaluation to determine which programme components are effective and to anticipate future capacity needs. Programme teams should schedule regular learning sessions to review data, reflect on successes and challenges, and decide on course corrections. A learning cycle might include:

68. **Monthly review meetings** at each hub to discuss survey results, dashboards and qualitative feedback. These meetings can identify immediate issues, such as low engagement in a specific module or drop-off at a particular time.
69. **Quarterly cross-site learning sessions** among MolenGeek, TechGrounds and TechStation to share insights, challenges and innovations. These sessions encourage peer learning and help harmonise evaluation approaches across sites.
70. **Annual strategic review** with the International Governance Board to assess progress against the overall project's objectives, examine trends (e.g., improving positive exit rates) and adjust targets or resources accordingly.

Documenting lessons learned is crucial. NDIA encourages organisations to share reports widely and maintain them online to build a collective knowledge base. Reports should follow an asset-minded approach, celebrating strengths, achievements and growth while acknowledging challenges and improvements. Stories of impact should respect participants' privacy and dignity.

12.7 Sustainability and impact evidence

Robust M&E systems contribute to the long-term sustainability of the MolenGeek model. They provide evidence for funders, policymakers and partners that the programme delivers tangible outcomes. The Digital Inclusion Toolkit notes that evaluation helps to *prove* and *improve* projects. By demonstrating the value of training and community initiatives, MolenGeek can attract further investment, build strategic partnerships, and influence policy. An evidence base showing how programmes reduce NEET rates, increase employment and promote social inclusion strengthens advocacy for digital equity policies at local, regional and EU levels.

To ensure sustainability:

- **Integrate M&E into resource planning:** Budget for dedicated evaluation staff, data systems and training. The NDIA manual highlights that programmes often require resources for evaluation and that return-on-investment calculations may be required by funders.

- **Align with external targets:** Collect data that contributes to broader benchmarks, such as the EU Digital Decade goal that 80% of people aged 16–74 have at least basic digital skills by 2030 and that 20 million ICT specialists are employed. Aligning local indicators with these targets helps demonstrate how the programme contributes to national and European objectives.
- **Build an evidence coalition:** Partner with researchers, universities and think-tanks to conduct independent evaluations, publish findings and participate in conferences. Sharing data through platforms like the NDIA Impact Evaluation Database ensures transparency and promotes collaboration.

12.8 M&E toolkit

To support hubs in implementing effective M&E, MolenGeek International should provide a set of templates and tools:

Evaluation framework template	Purpose Organise evaluation questions, indicators, data sources, frequency and responsibility	Key features Pre-formatted spreadsheet based on the MEL framework; linked to theory of change; includes pre-populated examples
Theory of Change template	Map inputs, activities, outputs, outcomes and impact	Visual diagram with placeholders; identifies assumptions and external factors
Survey templates	Collect participant feedback and track outcomes	Standard pre/post training surveys; ongoing progression survey; monthly activity survey; inclusive demographic questions
Case study guide	Gather qualitative stories	Interview guide with questions on motivations, experiences, outcomes and barriers; consent form templates
Dashboards	Real-time monitoring of key metrics	Centralised dashboard for each hub; integrated with Molearning data and Odoo activity; aggregated dashboard for international coordination
Reporting templates	Communicate findings to stakeholders	Structured reporting formats for quarterly and annual reports; sections for achievements, challenges, lessons learned

Tool	Purpose	Key features and recommendations; guidelines for asset-based language
Data protection guidelines	Ensure privacy and compliance	Checklist for data storage, anonymisation, informed consent, accessible privacy notices and ethical approval where required

12.9 Key takeaways

- Monitoring and evaluation are not just funder requirements; they are vital for continuous improvement, learning and accountability.
- Evaluations should measure more than attendance or device distribution; they should examine satisfaction, relevance, ease of participation, equity and sustainability.
- Develop the evaluation framework alongside the programme design, using a theory of change to guide questions, indicators and data sources.
- Use mixed methods—quantitative surveys and qualitative stories—to capture both breadth and depth of impact, and disaggregate data to ensure inclusion.
- Adopt modular tools like the NDIA Digital Inclusion Impact Aggregator to streamline data collection and reporting across partners.
- Inclusive monitoring requires disaggregated indicators, accessible data collection methods, and participation of marginalised groups.
- Share findings widely and use evaluation results to advocate for funding, policy change and program adaptation.

By embedding rigorous, inclusive and participatory monitoring and evaluation practices, Molengeek International can demonstrate impact, improve its offerings, and inspire confidence among learners, partners and funders. Evaluation is the bridge between the day-to-day work of training and community building and the long-term vision of an inclusive digital society.

Chapter 13 – Project Management & Quality Assurance

13.1 Why a rigorous project management framework matters

Erasmus+ projects and international partnerships thrive on clear planning, transparent decision-making and continuous quality control. A well-designed **project management framework** ensures that objectives are met on time and within budget, and that emerging risks are addressed before they derail the initiative. The European Commission's guidelines emphasise that effective risk management involves **identifying, evaluating, preventing and mitigating risks**, and that the project coordinator and partners have joint responsibility for monitoring risks throughout the life of the project. Experience from previous EU-funded projects shows that poor coordination and weak quality control are among the most common causes of delays and cost overruns; conversely, well-managed projects not only deliver outputs on schedule but also build trust among partners and funders.

This chapter translates those high-level principles into a comprehensive plan tailored for organisations seeking to replicate the MolenGeek model. It describes how to structure the management of work packages (WPs), allocate responsibilities, develop budgets, monitor progress, mitigate risks and ensure that deliverables meet agreed standards. It also provides templates and tools to support hands-on implementation, from Gantt charts and RAID logs to peer-review processes and data collection schedules.

13.2 Structuring work packages and assigning roles

13.2.1 Work package (WP) overview

Erasmus+ projects such as **MolenGeek International** are organised into four major work packages. This structure can be adapted when replicating the model:

WP	Scope	Key activities	Deliverables
WP1 – Project management & coordination	Administrative coordination, financial management, reporting,	Appoint project coordinator and co-coordinator, hold steering committee meetings, manage	Risk register, budget tracking files, monthly progress reports

	compliance with Erasmus+ rules	budget, produce periodic reports	
WP2 – VET activity transfer, documentation & adaptation	Documentation of seven training programmes and the Pathways orientation, localisation into partner languages, production of the final handbook	Coordinate curriculum design teams, set translation timeline, organise peer reviews	Finalised course templates, translations, Handbook with annexes
WP3 – Peer-to-peer learning & staff exchanges	Staff exchanges, working groups (BE/NL/IT), Odoo space and knowledge sharing	Plan staff visits, moderate Odoo channels, record learnings in the handbook	Peer learning reports, adoption of best practices
WP4 – Event planning & implementation	Organisation of hackathons and the Geek Summit, use of hybrid/VR technologies, evaluation of events	Detailed event plans, safe-event protocols, registration and evaluation processes	Hackathon & Geek Summit reports, participant feedback

13.2.2 Defining roles and responsibilities

Clear responsibility assignment prevents gaps and overlaps. The **Responsibility Assignment Matrix (RACI)** is a proven tool for clarifying who is Responsible (R), Accountable (A), Consulted (C) or Informed (I) for each task. For each WP and each deliverable, identify:

- **Lead partner (Accountable):** the organisation responsible for final delivery and coordination.
- **Supporting partners (Responsible/Consulted):** organisations or departments carrying out tasks or providing input.
- **Quality manager (Consulted):** ensures that deliverables meet quality standards and schedules.

- **Stakeholders (Informed):** funders and external stakeholders who need to be kept updated.

Assigning these roles early reduces confusion and helps new hubs manage multi-country collaborations. The project coordinator should maintain an online **RACI table** that is accessible to all partners and updated when tasks evolve.

13.2.3 Governance bodies and meetings

To ensure consistency and transparency, the partnership should establish formal governance bodies:

- **Steering Committee:** Composed of senior representatives from each partner, this committee meets quarterly (or more frequently if needed) to review progress, approve budget adjustments and resolve strategic issues. It acts as the final decision-making authority.
- **Project Management Office (PMO):** Led by the coordinator, the PMO oversees day-to-day management, maintains the risk register, tracks expenditures, and prepares reports. It organises monthly management meetings and coordinates communication across WPs.
- **WP Leaders & Sub-teams:** Each WP leader convenes weekly or bi-weekly meetings with team members to monitor tasks, allocate resources and prepare deliverables. WP leaders report back to the PMO.
- **Quality & Risk Committee:** A small group including the quality manager, risk manager and external experts (if available). This committee reviews deliverables before submission and monitors the risk log.

Regular meetings are essential. The **TRESCA risk management plan** for Horizon 2020 projects recommends monthly progress meetings and quarterly consortium meetings, along with separate meetings of WP leaders to monitor tasks and reallocate efforts when necessary. The TRESCA plan also emphasises that deliverable leaders should circulate drafts one week before submission to allow review and revisions. These practices ensure timely detection of issues and alignment of outputs with expectations.

13.3 Budget control and reporting

13.3.1 Building a realistic budget

Cost planning should reflect the specific circumstances of each hub: staff salaries, venue rental, equipment, training materials, translations and event costs. When drafting the budget, consider:

71. **Personnel costs:** Salaries for coordinators, trainers, community managers, event organisers, and administrative staff. Use full-time equivalent (FTE) calculations and include social charges.
72. **Operational costs:** Rent, utilities, insurance and maintenance for the physical hub. Chapter 4 outlines typical cost ranges for renovations, equipment and connectivity.
73. **Programme costs:** Travel and subsistence for staff exchanges, translation services, licensing fees (e.g., e-learning platforms), and materials for hackathons (kits, prizes, VR headsets).
74. **Contingency:** A 5–10% buffer for unexpected expenses or currency fluctuations.

Budgeting should be done at the WP level and aggregated for the entire project. In accordance with Erasmus+ guidelines, budgets must also account for co-financing and contributions in kind. Partners should sign a consortium agreement clearly stating cost allocations and reimbursement rules.

13.3.2 Tracking expenses and cash flow

Once the budget is approved, partners need to **monitor cash flow** and ensure expenses align with the planned budget. The project coordinator should maintain a **budget tracking sheet** with the following fields: WP, expense description, budgeted amount, actual expenditure, variance, invoice number, date paid, and funding source. Partners submit expense claims with supporting documents (invoices, timesheets). The PMO reviews and approves payments, ensuring that costs are eligible and documented.

A best practice is to hold **quarterly financial reviews** to compare planned versus actual expenditure and adjust budget forecasts. If deviations exceed a predefined threshold (e.g., $\pm 10\%$), the steering committee should decide on corrective measures such as reallocating funds between WPs or requesting amendments. The **risk register** should include potential financial risks (e.g., delayed funding, cost overruns, currency fluctuations) and mitigation strategies (e.g., exchange rate hedging, re-prioritising activities).

13.4 Risk management

Risk management is a continuous process of **identifying, analysing, responding to and monitoring risks**. The Erasmus+ management toolkit stresses that the project coordinator and partners must jointly oversee risk management and maintain a **risk register** to support assessment and monitoring. Without a proactive risk strategy, even well-designed projects can falter because of unforeseen events.

13.4.1 Developing a risk register

A **risk register** (or **RAID log** for Risks, Assumptions, Issues and Dependencies) documents identified risks, their likelihood and impact, owners and mitigation actions. The columns of the register should include:

ID	Description	Type	Probability	Impact	Score (P×I)	Owner	Mitigation	Status
R1	Partner leaves the consortium	Operational	Medium	High	12	WP leader	Maintain reserve partners; cross-train staff; define reallocation procedures	Open
R2	Delay in delivering training content	Schedule	High	Medium	15	WP2 team	Monitor milestones; weekly check-ins; allocate additional translators	Open
R3	Budget overruns due to rising utility prices	Financial	Low	Medium	4	PMO	Include contingency; monitor energy costs; negotiate fixed-rate contracts	Open

Use a colour-coding system (e.g., red for high risks, amber for medium, green for low) to quickly visualise priorities. At each management meeting, review the register, update statuses and decide whether new risks should be added or mitigation plans adjusted.

13.4.2 Identifying and categorising risks

Risks can stem from internal and external factors. The **TRESCA risk management plan** identifies typical issues such as partners leaving the consortium, inability to deliver on time, difficulty coordinating, insufficient quality, delayed deliverables and budget overruns[3]. In replicating MolenGeek, common risk categories include:

- **Operational risks:** Staffing shortages, turnover, equipment failure, lack of suppliers, translation delays.
- **Financial risks:** Cost overruns, funding delays, unexpected taxes or duties.

- **Schedule risks:** Delays in curricula translation, event scheduling conflicts, slow procurement processes.
- **Partnership risks:** Miscommunication between organisations, cultural differences, conflicting priorities, legal and regulatory changes.
- **Quality risks:** Deliverables not meeting standards, inconsistent training quality across sites, insufficient participant satisfaction.

13.4.3 Risk analysis and response planning

Assign a **probability** and **impact** (e.g., on a scale from 1 to 5) for each risk. Multiply these to compute a **risk score**. High-score risks require immediate attention and robust mitigation strategies, while low-score risks can be monitored. For each risk, define:

- **Preventive actions:** Measures taken to avoid the risk (e.g., cross-training staff to cover absences, having backup internet connectivity).
- **Corrective actions:** Steps to take if the risk materialises (e.g., reassign tasks, negotiate timeline extensions, secure emergency funding).
- **Contingency plans:** Pre-agreed fallback solutions (e.g., switching to remote delivery if in-person events are cancelled).

All partners should be familiar with the risk register and encouraged to contribute new risks. A culture of openness helps surface potential issues early. **Accelopment**, a research management consultancy, recommends that WP leaders review risks monthly and discuss them at executive board meetings. They also suggest that quality and risk managers oversee risk management processes, encourage proactive planning and foster a collaborative risk-management culture.

13.4.4 Monitoring and updating risks

Risk monitoring is ongoing. At each management meeting, the PMO should ask whether risks have changed in probability or impact and whether mitigation measures remain appropriate. New risks should be added and old ones retired. Periodically review whether risk scores reflect current realities; for example, if translation delays are resolved, adjust the risk rating accordingly. Documenting these updates helps maintain institutional memory and justifies decisions during audits.

13.5 Quality assurance (QA)

Quality assurance ensures that outputs and processes meet agreed standards and that the project delivers on its objectives. The **UP TO SPEED** Erasmus+ project emphasises that QA must cover the project as a whole; monitoring and evaluation should be continuous, not just at the end. Quality assurance includes pre-development, review,

approval of outputs and monitoring activities against schedules. A dedicated **Quality Monitoring Entity** or quality manager should ensure activities align with the project proposal and deadlines.

13.5.1 Defining quality criteria

Quality criteria should be established early for each deliverable. Consider:

- **Compliance with scope:** Does the output meet the specifications in the project plan? For example, the final handbook should cover all required sections, be consistent with the agreed structure and incorporate translation guidelines.
- **Accuracy and completeness:** Are facts correct and supported by evidence? Are all necessary components (annexes, templates) included?
- **Clarity and readability:** Is the content understandable for the target audience? Have professional editors reviewed the text?
- **Technical robustness:** Are training materials error-free and functional? For digital outputs, do links work and are files accessible?
- **Stakeholder satisfaction:** Does the deliverable meet partner and participant expectations? Use surveys or focus groups for feedback.

13.5.2 Deliverable review process

Establish a review process similar to that described in the **TRESCA Quality Assurance Plan**, where deliverable leaders send drafts to reviewers not directly involved in production at least one week before submission. Reviewers provide comments and improvements; the deliverable leader integrates feedback and resubmits for final approval. Key steps:

75. **Draft preparation:** WP leader drafts the deliverable following templates and quality criteria.
76. **Internal review:** The draft is shared with internal reviewers (other partners, quality manager). They check for completeness, accuracy, clarity and format.
77. **Revisions:** The WP leader addresses comments and prepares the final version.
78. **Final review:** The quality manager ensures that comments have been addressed and verifies conformity with templates.
79. **Approval:** The steering committee formally approves the deliverable before submission to the funder or public release.

This process promotes knowledge sharing across partners and helps maintain a consistent standard.

13.5.3 Monitoring project performance and impact

In addition to reviewing deliverables, the quality team should monitor **performance indicators**. Chapter 12 outlines an evaluation framework with nested logic models and a suite of indicators (participation rates, positive exits, event outcomes, diversity metrics). The NDIA Digital Inclusion Impact Aggregator provides templates and database structures for capturing data across programmes. These tools allow partners to aggregate data at the ecosystem level and produce dashboards for decision-makers.

Quality assurance also includes periodic **process audits** to check whether workflows, communication channels and decision processes are functioning as intended. For example, an audit may examine whether RACI assignments are clear, whether monthly reports are submitted on time and whether meeting minutes capture decisions and action items. Findings should feed into continuous improvement processes.

13.6 Reporting and communication

Transparent and timely reporting builds trust with partners and funders. The PMO should establish a reporting calendar that sets out deadlines for monthly progress reports, quarterly financial statements and annual technical reports. **Reports should include:**

- **Executive summary:** Key achievements, challenges and next steps.
- **Progress against objectives:** Status of each WP and deliverable, including quantitative metrics (e.g., number of participants, budgets spent).
- **Financial overview:** Expenditures by category, variances against budget, reasons for deviations, forecast for the next period.
- **Risk and issue log:** Updated risk register and description of mitigation actions taken.
- **Quality assurance activities:** Summary of reviews, audits and corrective actions.
- **Lessons learned:** Insights gained and recommendations for improvement.

Meeting minutes should be distributed within 48 hours of each meeting, summarising decisions taken, assigned actions and deadlines. Use shared collaboration tools (e.g., Odoo, Notion, Drive) to centralise documents and ensure version control. Each partner should have access to an updated repository of templates and instructions.

13.7 Sustainability and continuous improvement

Project management does not end with the final report. To ensure sustainability, organisations should:

- **Document lessons learned:** At the end of each phase, conduct a retrospective to capture what worked, what did not and why. Share these insights across the partnership.
- **Set up a sustainability fund:** Allocate resources to maintain key activities after the project ends, such as updating course content and supporting alumni networks.
- **Plan handover of responsibilities:** Identify who will maintain the risk register, budget tracking and quality monitoring after project closure. Consider appointing an “International Manager” to oversee continued coordination across hubs.
- **Leverage networks:** Continue engaging with partner institutions, donors and public authorities. Use the evaluation results to advocate for new funding and expansion.
- **Iterate on processes:** Adopt a mindset of continuous improvement. Use feedback from participants, staff and partners to refine training programmes, event organisation and community engagement. Ensure that risk management and quality assurance processes evolve to address new challenges.

Quality assurance plans from Erasmus+ projects emphasise that evaluation and quality improvement should not be seen as one-off exercises but as ongoing learning processes. Building a culture of continuous improvement will strengthen the long-term impact of any Molengeek replication project.

13.8 Key takeaways

80. **Project management is a shared responsibility:** The coordinator leads but all partners contribute to planning, monitoring and decision-making. Use clear governance structures and assign roles via a RACI matrix.
81. **Plan and track budgets meticulously:** Estimate costs at WP level, include contingencies, monitor cash flow and hold regular financial reviews. Transparent budgeting builds trust and supports timely delivery.
82. **Adopt proactive risk management:** Maintain a risk register, analyse and prioritise risks, plan preventive and corrective actions and monitor them regularly. Make risk discussions a standing agenda item in management meetings.

83. **Embed quality assurance into every process:** Define quality criteria, implement a peer-review process, and monitor performance indicators. Continuous evaluation and learning are essential for improvement.
84. **Communicate transparently:** Use regular reports, meetings and shared tools to ensure all partners remain aligned and informed. Provide clear guidance on documentation and version control.
85. **Think beyond the grant:** Plan for sustainability by documenting lessons learned, maintaining networks and allocating resources for post-project activities. Continuous improvement ensures the MolenGeek model remains relevant and impactful.

By following these guidelines, new hubs can build robust project management and quality assurance systems that not only deliver on Erasmus+ commitments but also set the stage for long-term success. A disciplined approach to planning, budgeting, risk management and quality assurance is the backbone of any thriving educational ecosystem and a cornerstone of the MolenGeek model.

Chapter 14 – Financial Model & Sustainability

14.1 Introduction: why sustainability matters

Financial sustainability is the backbone of any replicable social enterprise. For organisations that seek to replicate the **MolenGeek model**, long-term impact depends not only on delivering quality training and community activities but also on securing diversified and resilient funding. The **European Investment Bank's report on digital innovation hubs** notes that most hubs still rely heavily on public grants but warns that the availability of public funding is uncertain; therefore hubs must diversify and develop more commercially-oriented business models. Without a robust financial plan, training programmes may struggle to scale, cross-border collaboration may stall and inclusive ecosystems may be short-lived.

This chapter provides guidance on **cost structures, revenue streams, emerging financing models, partnership strategies** and **scenario planning**. It draws on evidence from digital hub case studies, social enterprise funding models and nonprofit sustainability frameworks to offer practical strategies for hubs across Europe.

14.2 Understanding the cost structure

14.2.1 Capital and operational expenditures

Building and operating a hub requires both **capital expenses (capex)** and **operational expenses (opex)**. Chapter 4 summarised typical setup costs: **structural renovations** (\$465–\$518 per square foot) and **furniture & design** ($\approx$ \$1,000–\$1,500 per square metre), **technology infrastructure** ($\approx$ \$2–\$4 per square foot plus equipment), **insurance** (around \$340.75 per month for basic coverage) and **legal fees** (\$200–\$1,000 per hour). Operational costs include rent, utilities, internet, maintenance, insurance renewals and staff salaries (e.g., program managers, trainers, support staff). Event and programme costs cover training materials, translation services, marketing, prizes and travel. These cost categories form the baseline for budgeting.

14.2.2 Allocating resources across work packages

From a project management perspective, costs should be allocated across the four work packages (WP1–WP4). **WP1 (management)** needs budget for coordination staff, meeting costs and financial audits. **WP2 (training and documentation)** requires resources for curriculum development, translation, accreditation and digital platforms. **WP3 (peer learning & staff exchanges)** covers travel and subsistence, staff time for knowledge sharing and digital collaboration tools. **WP4 (events)** includes venue rental, catering, prizes, VR headsets, security and insurance. Separating costs by WP helps partners identify funding gaps and justify expenses during audits.

14.2.3 Hidden costs and contingency

Projects often underestimate the cost of **maintenance, translations, IT upgrades** and **staff turnover**. Insurance, legal compliance, accounting services and accessibility adaptations must also be factored into the budget. To reduce the risk of budget overruns, allocate a **contingency fund** of 5–10 % and review costs quarterly. Include inflation assumptions and currency fluctuation buffers if working across countries.

14.3 Revenue diversification: building a resilient income mix

A sustainable hub relies on **multiple income streams** rather than a single funding source. The EIB report points out that while most digital innovation hubs are still skewed towards public funding, an increasing number recognise the need to shift toward private contributions and commercial services. Diversifying revenue reduces dependence on grants and future-proofs the hub.

14.3.1 Public funding

Public funds remain essential, especially in the early stages. EU programmes such as Erasmus+, national and regional grants, and municipal subsidies can cover infrastructure, training and staffing. However, as the EIB report notes, the landscape of public funding is changing and the future availability of grants is uncertain[5]. Moreover, grants often come with strict eligibility and reporting requirements. Organisations should treat public funding as seed capital to build capacity and develop revenue-generating activities, rather than as the sole source of income.

14.3.2 Corporate partnerships and sponsorships

Partnerships with private companies offer financial contributions, in-kind support (equipment, software), skills-based volunteering and co-branded events. According to sustainability experts, corporate partnerships can include **philanthropic donations, event sponsorships, payroll giving schemes, matching donations, cause-based marketing and pro-bono services**. Careful due diligence is needed to ensure alignment between the hub's mission and the company's values. In return, hubs can offer access to talent, brand visibility, impact reporting and co-creation of training programmes. For example, MolenGeek's long-standing partnership with Proximus provides telecom equipment, IoT sensors, knowledge exchange and training placements. These collaborations not only reduce operating costs but also expand the hub's network and credibility.

14.3.3 Fee-for-service and membership models

Fee-for-service offerings allow hubs to monetise their expertise. Humentum suggests that non-profits can generate revenue by providing capacity building or compliance support to other organisations, consulting services, or charging fees for educational programmes. In the context of a MolenGeek-like hub, fee-based services may include:

- **Tailored training courses for companies** (e.g., digital marketing bootcamps, Salesforce certification, cyber security upskilling). Companies pay for employees to attend these courses, which cross-subsidise free training for NEETs and underserved groups.
- **Consulting and project incubation services:** Helping startups with business planning, prototyping, user testing or digital transformation.
- **Job placement and recruitment services:** Charging employers a success fee for each graduate hired; the EIB report notes that some digital innovation hubs levy milestone success fees and utilisation fees for testing facilities.

Additionally, hubs can implement **membership and subscription models**, charging individuals or organisations to access coworking space, mentorship, tools and events. Members receive benefits such as priority access to workshops, reduced event fees or dedicated desks. Sliding-scale pricing can ensure affordability for students and early-stage entrepreneurs while maintaining revenue from corporate clients.

14.3.4 Rental income and utilisation fees

Digital innovation hubs can rent office space, meeting rooms, studios and event venues to external clients. The EIB case study of an Irish public–private partnership hub shows that such hubs generate income through **rental income, monthly/annual memberships, utilisation fees for testing and research facilities, coaching and other investment readiness support, and milestone success fees**. Renting out space during off-hours or off-peak seasons maximises asset utilisation. Hubs may also charge fees for equipment hire (VR headsets, multimedia studios, 3D printers) and for access to specialized labs.

14.3.5 Digital products and intellectual property

Hubs can develop and sell digital products such as e-learning courses, resource toolkits, or mobile applications. These products can be offered as **stand-alone subscriptions** or packaged with membership plans[14]. Advanced hubs may also monetise intellectual property from projects developed in the hub, for example, by taking equity stakes in incubated startups or licensing software developed through hackathons. However, this requires careful legal frameworks to protect participants' rights and align with the hub's social mission.

14.3.6 Events and fundraising activities

Organising events (hackathons, conferences, galas) not only supports the community but also generates revenue through **ticket sales, sponsorships and merchandise**[15]. As described in Chapter 8, hackathons and the **Geek Summit** can be designed to cover their own costs via sponsorship packages and entry fees for corporate participants. Fundraising events should reflect the organisation's mission, be accessible and inclusive, and have costs covered by sponsors before ticket sales begin[16]. Post-event engagement is crucial: follow up with participants, invite them to become donors or volunteers, and convert them into long-term supporters.

14.3.7 Social enterprises and earned income

Social enterprises blend business strategies with social missions. Humentum cites examples such as youth employment organisations operating cafés to train and employ

underserved youth and recycling cooperatives earning income through upcycled products. In the MolenGeek context, social enterprise activities could include a café or merchandise store run by trainees, or micro-businesses incubated within the hub that generate profits for reinvestment. Before launching any commercial venture, hubs must ensure legal compliance and assess market demand. Starting with small pilots helps test assumptions and minimise risk.

14.3.8 Bonds and impact finance

Development impact bonds and social or green bonds offer access to capital from investors seeking both financial return and measurable social impact. While typically associated with governments or large organisations, these instruments may become viable for networks of hubs or consortia. Hubs considering this option need strong governance, the ability to define and measure outcomes, and partnerships with financial intermediaries. Participating in bond-funded projects, rather than issuing bonds independently, can provide a stepping stone into this space.

14.3.9 Monetising existing assets

Nonprofits often have underutilised assets—physical spaces, equipment, vehicles or intellectual property—that can be leased or shared for a fee. For example, hubs can rent out unused meeting rooms to local organisations, lend multimedia equipment to content creators, or license curriculum content to schools. Monetising assets does not mean abandoning the mission; it involves making strategic use of what the organisation already owns.

14.4 Emerging business models: lessons from digital innovation hubs

The EIB report identifies two **emerging financing models** that allow digital innovation hubs to reduce reliance on public grants and pursue commercial opportunities:

14.4.1 Public–private partnership (PPP) model

In a PPP model, the hub is structured as a not-for-profit partnership between private enterprises, public research institutes and local authorities. The private partner contributes commercially oriented expertise and sometimes physical assets (e.g., a 20 000 square foot building donated under a long lease), while the public partners provide research capacity, infrastructure and initial funding. Revenues come from **rental income, memberships, utilisation fees for testing facilities, coaching services and milestone success fees**. The goal is to achieve self-sustainability within

five years. PPP hubs can be appealing because they align the incentives of public and private partners: the public sector fosters innovation and economic development, while private companies benefit from talent pipelines and technology transfer.

14.4.2 Research & technology organisation (RTO) model

RTO-based hubs broaden their financing mix by combining grants with **repayable sources**. They leverage their expertise and knowledge to expand into **fee-based services**, such as project-oriented research, advanced training, membership fees and technology transfer. In the example cited by the EIB report, a hub founded in 2003 in Ireland initially received full public funding but now generates two-thirds of its income from private sources, primarily rent from 70+ companies on campus and paid workshops. This model shows that hubs can gradually transition from grant dependence to commercial viability by exploiting their intellectual property and facilities.

14.4.3 Hybrid models and cross-subsidisation

Most hubs will combine elements of these models. A hybrid approach might use public funding to subsidise entry-level programmes for NEETs while charging market rates for corporate training. Cross-subsidisation ensures equity and allows financially sustainable growth. The EIB report notes that some hubs are expanding into revenue-generating activities like advanced training, membership fees and fee-based services, while still delivering non-commercial community initiatives. For MolenGeek-style hubs, a cross-subsidised model could involve corporations sponsoring cohorts in exchange for hiring commitments, thus offsetting costs of free training.

14.5 Building a financial plan: scenarios and projections

14.5.1 Key metrics and assumptions

When drafting a financial plan, base your projections on realistic assumptions. Key metrics include:

- **Number of participants per cohort** and **courses delivered per year**.
- **Cost per participant**, including overhead, training materials and staff time.
- **Completion and positive exit rates** (e.g., 85–90 % for MolenGeek programmes).
- **Corporate client acquisition**: number of corporate trainees and price per seat.
- **Membership utilisation** (number of members, occupancy rates).
- **Event revenue** (ticket sales, sponsorship packages, merchandise).

- **Grant income** and **donations** (likely decreasing over time as other revenue grows).

Projects should also track **cash flow**, **operating margin** and **break-even point** (the moment when total revenue covers total operating costs). Inclusion of a contingency line and sensitivity analyses helps manage uncertainty.

14.5.2 Scenario planning

Develop at least three scenarios—optimistic, realistic and conservative—to evaluate how different assumptions affect sustainability. For example:

- **Optimistic scenario:** The hub rapidly fills its cohorts, corporate demand grows, and event sponsorship targets are met. Grant funding remains stable in the short term and the hub reaches break-even in Year 2.
- **Realistic scenario:** Participation grows steadily, corporate demand is moderate, and some events underperform. Break-even occurs in Year 3.
- **Conservative scenario:** Participation lags, corporate training sales are lower than expected, and public funding declines. The hub relies on reserve funds and delays expansion. Break-even may occur in Year 4 or later.

Scenario planning allows leaders to test strategic options (e.g., launching a social enterprise, increasing fees, cutting costs) and prepare mitigation strategies. Financial planning should be updated annually based on actual results and changing market conditions.

14.5.3 Setting financial targets and monitoring performance

Establish targets for revenue composition (e.g., no more than 50 % from grants by Year 3; at least 30 % from earned income; 20 % from corporate partnerships). Use dashboards (see Chapter 12) to monitor performance indicators such as revenue per programme, cost per participant, and surplus/deficit. When targets are not met, adjust pricing, marketing or product offerings. Build a culture of financial literacy among staff so that everyone understands how their decisions affect sustainability.

14.6 Fundraising strategies and donor engagement

14.6.1 Individual and institutional donors

Traditional fundraising remains important. Develop a donor pipeline that includes **individual donors**, **foundations** and **corporate philanthropies**. Craft compelling stories illustrating how the hub transforms lives and contributes to local economic development. Offer donors transparency by reporting how funds are used and the social

return on investment. For institutional donors (e.g., foundations, EU agencies), tailor proposals to align with their thematic priorities and demonstrate strong governance and impact measurement.

14.6.2 Digital giving and community campaigns

Use digital platforms to launch **crowdfunding campaigns**, monthly giving programmes or peer-to-peer fundraising. Highlight success stories from alumni and emphasise how small contributions can make a tangible difference. Digital giving platforms reduce transaction costs and extend the donor base beyond the local community. Encourage alumni and corporate partners to run matching campaigns to increase reach.

14.6.3 Government and multilateral support

Continue to pursue funding from local authorities, European Structural Funds and multilateral organisations (e.g., UNICEF, UNHCR) for initiatives that align with their mandates (e.g., inclusion of refugees or women in digital skills). Leverage the metrics and success rates from previous cohorts to build credibility. Consider joint applications with partner institutions to increase competitiveness.

14.7 Ensuring compliance and ethical finance

Financial sustainability must be accompanied by compliance with legal and ethical standards. Hubs should:

- **Adhere to Erasmus+ and national accounting rules:** Ensure that expenses are eligible, supported by invoices and properly reported.
- **Monitor tax obligations:** Understand VAT, withholding taxes and exemptions applicable to educational services and social enterprises.
- **Implement transparent procurement:** Use open and fair processes for selecting suppliers and partners.
- **Respect participant rights:** When generating revenue from graduates (e.g., success fees), ensure that terms are clear and fair.
- **Avoid mission drift:** Evaluate whether new revenue activities align with the hub's social mission. Decline opportunities that could compromise values or exclude underserved groups.

14.8 Impact measurement and return on investment

Financial sustainability is not just about income—it is about **value creation**. Investors and partners increasingly expect evidence of social impact. Use the evaluation

frameworks from Chapter 12 to link financial inputs to outcomes such as **employment, income growth, diversity** and **community engagement**. In addition to standard financial ratios (e.g., net income, liquidity), compute social return metrics (e.g., cost per positive exit, employer satisfaction, alumni career progression). According to the EIB report, digital innovation hubs aim to leverage services and fees to enhance offerings and support SMEs[13]; measuring how these services translate into improved employment and economic activity will strengthen fundraising efforts.

14.9 Risk management for financial sustainability

Financial risks—such as grant cuts, non-payment by clients, fluctuating demand and economic downturns—should be integrated into the overall **risk management framework** described in Chapter 13. Include financial risks in the risk register, assign owners and define mitigation strategies. Examples:

- **Grant reduction:** Build reserves and diversify revenue to cover at least six months of operating costs.
- **Corporate client churn:** Maintain a robust sales pipeline and maintain relationships via regular check-ins and feedback.
- **Currency fluctuations:** If dealing with multiple currencies, consider hedging or pricing contracts in stable currencies.
- **Cash flow gaps:** Negotiate payment terms with clients, set up lines of credit and invoice promptly.

14.10 Sustainability governance and accountability

Establish a **Finance & Sustainability Committee** within the governance structure (see Chapter 13) to oversee financial strategy, monitor progress towards revenue diversification and ensure alignment with mission. This committee should include representatives from finance, programme management, and external advisors (e.g., accountants, social finance experts). Responsibilities include reviewing quarterly financial reports, evaluating new revenue initiatives, assessing risk exposure and recommending corrective actions.

Accountability also involves transparency: publish annual reports summarising revenue sources, expenditure and impact. Use visual dashboards to communicate key metrics to stakeholders. Involving community representatives and alumni on advisory boards can strengthen trust and ensure that financial decisions support inclusive objectives.

14.11 Conclusion and key takeaways

Financial sustainability is not an afterthought; it is a core design principle for replicating the MolenGeek model. Successful hubs blend public funding with diversified revenue streams, including corporate partnerships, fee-based services, membership models, social enterprises and impact finance. Emerging business models—such as public–private partnerships and research & technology organisation hybrids—demonstrate how hubs can transition from grant dependence to commercial viability. At the same time, clear budgeting, scenario planning, risk management and impact measurement ensure transparency and accountability.

Key messages:

- 86. **Diversify revenue early:** Do not rely on grants alone; pursue corporate sponsorships, memberships, services and innovative financing.
- 87. **Leverage public–private and RTO models:** These models combine public support with commercial activities and have proven effective in digital innovation hubs.
- 88. **Align income with mission:** Ensure that revenue activities (training, consulting, events) support rather than dilute the social purpose.
- 89. **Plan for multiple scenarios:** Use financial models to anticipate best-case and worst-case outcomes, and revise plans based on actual performance.
- 90. **Measure and communicate impact:** Link financial inputs to social outcomes to secure ongoing support from donors, partners and investors.

By adopting these practices, new hubs can build resilient financial foundations, replicate the MolenGeek model at scale and continue to empower underserved communities long after initial funding ends.

Chapter 15 – Communication, Brand and EU Visibility

The long-term impact of a local tech ecosystem depends not just on the quality of its training or the strength of its business model, but also on how well it communicates its vision and builds recognition. Creating a unique and consistent voice enables the network to reach the people it seeks to serve — young people outside work and education, women and minorities, refugee and migrant communities, corporate partners, funders and public authorities. At the same time, projects that benefit from Erasmus+ funding are subject to explicit obligations regarding the visibility of the European Union. This chapter outlines a comprehensive communication strategy for the MolenGeek ecosystem and explains how to comply with EU branding rules. The goal is to produce messaging that is inspiring, practical and inclusive, while ensuring that the role of the European Union is properly acknowledged.

15.1 Why communication and visibility matter

Communication is not an optional extra but a central component of ecosystem development. It serves multiple purposes: it reaches prospective learners and motivates them to enrol; it builds trust with families and local communities; it demonstrates accountability to funders and policy makers; it helps partners understand how to support the mission; it elevates the success stories of participants; and it provides momentum for replication by positioning MolenGeek-style hubs as credible solutions to youth unemployment and digital skills gaps. A well-designed communication strategy therefore supports recruitment, partnership building, fundraising, policy advocacy and evaluation. It also embeds the values of inclusion, diversity and social innovation into the public image of the hub. By telling stories of participants from different backgrounds, addressing barriers head-on and highlighting successes, a hub can become a beacon of possibility in its community.

15.2 Brand identity and core messaging

Mission-driven positioning. All communication should stem from a clear statement of purpose. MolenGeek's mission is to make digital technology, innovation and entrepreneurship accessible to everyone regardless of academic background. This mission is shared by its partners TechGrounds and TechStation and underpins the vision of a European ecosystem of inclusive tech hubs. Core messages should therefore emphasise inclusion, empowerment through digital skills, community building, and opportunities for sustainable employment. Storytelling that focuses on aspiration, resilience and agency resonates strongly with audiences and counters narratives of hopelessness or deficiency.

Values and tone of voice. A consistent tone conveys credibility. The content should be inspiring yet realistic, hopeful yet evidence-based. It should speak respectfully to different groups and avoid jargon. An inclusive tone acknowledges diversity in gender, ethnicity, disability, age and class, and invites people who may not see themselves represented in mainstream tech discourses. In line with the European Parliament's inclusive communication guidelines, the hub should strive to reach diverse segments of its target groups, recognising that audiences include women, men, persons identifying as LGBTIQ, people with disabilities and people of various social or ethnic origins. The guidelines emphasise that communication output must be inclusive and appealing to diverse segments and should avoid turning people away because of vocabulary, imagery or speaker selection. In practice this means using gender-fair language, avoiding stereotypes, representing diverse faces in photos, and ensuring content is accessible.

Visual identity. A coherent visual identity promotes recognition. Hubs should adopt a logo system and colour palette that reflect the parent brand (Molengeek or TechGrounds) while adapting it to local culture. Logos must be simple, legible and adaptable for digital and print. Co-branding with partners must follow the hierarchy described in the EU emblem guidelines (see section 15.6). The look and feel should reflect modern technology without appearing elitist; friendly typography, bold icons, and aspirational imagery help convey accessibility.

15.3 Audience segmentation and tailored messaging

Different stakeholder groups require distinct messages and channels. Use audience insights — including gender, age, socio-economic background and digital access data — to adapt messages. The European Parliament guidance stresses that campaigns should use available demographic data and tailor messaging to the specific concerns and interests of different segments.

- **Prospective learners and NEETs.** Messages should highlight that the programmes are free, accessible without academic prerequisites and grounded in practical projects. Emphasise the supportive community, mentorship and real job opportunities. Use plain language and multiple languages where relevant. Visuals should represent people who look like the audience, including women, migrants and older adults.
- **Parents and families.** Address concerns about security, certification and employability. Share success rates (e.g., 85 %–90 % positive exits) and partnerships with reputable companies. Testimonies from graduates and employers build credibility.

- **Corporate partners and funders.** Highlight the opportunity to recruit diverse talent, meet corporate social responsibility goals and innovate through hackathons. Provide data on cohort sizes, skills taught and placement rates. Emphasise tax or reputational benefits and the chance to shape the curriculum to industry needs.
- **Public authorities and policy makers.** Frame messaging around impact on employment, social inclusion and economic development. Show alignment with regional and EU digital skills targets. Provide evidence of cost-effectiveness (e.g., cost per participant, outcomes) and emphasise the hub's role as a complement to formal education.
- **General public and media.** Tell compelling stories of individuals who have transformed their lives through the programme. Use data to show how the model contributes to community revitalisation. Emphasise that anyone can learn digital skills regardless of background.

15.4 Multi-channel strategy

An effective communications plan combines owned, earned and paid media. The selection of channels should consider where target audiences spend time, what formats they consume and what resources are available.

Digital channels.

- **Website.** The hub's website is its primary information hub and should present courses, success stories, events and opportunities to donate or partner. It must be mobile-friendly, accessible (keyboard navigation, alt-text for images, sufficient contrast) and available in multiple languages. It should prominently display the EU emblem and funding statement (see section 15.6). A blog can showcase participant stories, behind-the-scenes insights and thought leadership on digital inclusion.
- **Social media.** Use platforms where youth and partners are present. For example, Instagram and TikTok for inspirational stories and short video tutorials; LinkedIn for professional updates and partnership announcements; Facebook for community engagement; Twitter/Mastodon for advocacy. Use subtitles on videos, descriptive captions for images and hashtags to widen reach. Regularly highlight the EU emblem with the funding statement on relevant posts.

- **Newsletters.** Monthly or quarterly newsletters keep stakeholders informed. Segment lists (participants, partners, alumni, policymakers) and tailor content. Include impact data, upcoming events and calls to action.
- **Podcast and live streams.** Consider a podcast series featuring learners, instructors and employers. Use live streaming for hackathons and panels to engage remote audiences. Ensure captioning for accessibility.

Offline channels.

- **Events.** Hackathons, job fairs, code cafés and the Geek Summit provide opportunities to showcase the model. Prior to events, run targeted outreach campaigns; during events, ensure signage displays the EU emblem and funding statement; afterwards, share highlights and outcomes across all channels.
- **Print.** Flyers and posters distributed in community centres, schools and public transport can reach audiences without digital access. These materials should follow EU emblem requirements. Consider accessible formats (e.g., large print, easy-read versions) for people with visual or cognitive disabilities.
- **Press.** Cultivate relationships with local and national journalists. Develop media kits and press releases emphasising success stories, partnerships and the EU's role in funding. Offer spokespersons who reflect the diversity of the cohort. Provide data to support claims.

15.5 EU branding and visibility obligations

As a beneficiary of Erasmus+ funding, a hub must prominently display the EU emblem and an appropriate funding statement on all communication activities and outputs. The operational guidelines for EU programmes 2021–2027 state that recipients must display the emblem and funding statement on communication materials, events and any infrastructure funded by the grant. The guidelines define 'prominent display' as ensuring the emblem is visible and easily seen in context. To comply:

- **Use of the emblem.** The EU emblem is the single most important visual element for acknowledging EU funding. No other visual identity or logo may be used to highlight EU support. The emblem must not be modified or merged with any other graphic elements. If other logos appear, the EU emblem must be at least the same size as the largest other logo.
- **Funding statement.** The statement "Funded by the European Union" or "Co-funded by the European Union" must accompany the emblem and be placed next to it. It should be translated into local languages where appropriate. The

typeface must be simple (recommended fonts include Arial, Calibri, Tahoma, Trebuchet or Verdana) and proportionate to the emblem. Avoid underlining or other effects; colours should match the EU flag (Reflex Blue, white or black depending on background).

- **Positioning and size.** Place the funding statement to the right of or below the emblem without interfering with the emblem. Ensure sufficient contrast, adding a white border if necessary. When multiple partners appear, group their logos separately and keep the EU emblem with its statement distinct. For events, plaques or billboards, display the emblem at least as prominently as other logos.
- **Bilingual and horizontal options.** The guidelines provide horizontal, vertical and bilingual layouts; choose the format that best fits the material. Use the downloadable files from the European Commission's logo repository.
- **Documentation and proof.** Keep records of where the emblem appears (e.g., brochures, slides, websites, event photos) and how prominence is ensured. Be prepared to demonstrate compliance during audits.

Adhering to these rules not only fulfils legal obligations but also strengthens the relationship with funding authorities and underscores the European dimension of the project.

15.6 Inclusive and accessible communication

Communications must reflect the project's commitment to inclusion and diversity. This involves both the content and the process of communication.

Inclusive language and representation. Use gender-fair and non-discriminatory language. Avoid idioms or slang that assume shared cultural context. Provide context when using acronyms. Select images and stories that represent the diversity of participants, including people of different genders, ethnicities, abilities and ages. The European Parliament guidelines emphasise that defined target groups have diverse segments and that communications should make efforts to ensure nobody is turned away because of vocabulary, images or speakers. They also recommend mainstreaming gender equality and diversity into all campaign strategies and adjusting messaging based on disaggregated data.

Accessibility. Digital content should follow Web Content Accessibility Guidelines (WCAG 2.1) to ensure access for people with visual, auditory, motor or cognitive impairments. This includes providing alt-text for images, subtitles for videos, transcripts for audio content, keyboard navigability and compatible colour contrasts. Printed

materials should be available in easy read formats and large print where needed. Events must offer accessible venues, captioning, sign language interpretation, gender-neutral toilets and quiet spaces for people with sensory sensitivities.

Intersectional approach. Recognise that participants hold multiple social identities (gender, race, ethnicity, class, disability) and that these intersect to shape experiences. Tailor communication to address these intersections. Avoid tokenism by involving diverse voices in the creation of content. Provide translation or interpretation in languages spoken by local communities.

15.7 Storytelling and ethical narratives

Storytelling connects audiences with the human impact of a hub. People respond to narratives of growth, resilience and community. However, communicators must balance inspiration with dignity. Adopt an asset-framing approach: focus on participants' aspirations and resources rather than deficiencies. Do not sensationalise or exploit personal stories. Obtain informed consent before sharing names or images. Anonymise sensitive information and respect individuals' rights to privacy. Provide feedback to story subjects on how their stories are used. Encourage alumni to co-create content; their authentic voices build trust.

15.8 Media relations and public engagement

Building relationships with media outlets amplifies the hub's reach. Develop a media list covering local newspapers, radio, TV, online publications and specialised tech and social entrepreneurship platforms. Prepare a press kit including a fact sheet about the hub, bios of founders and spokespeople, high resolution photos, and success stories. Issue press releases for major milestones (programme launches, graduation ceremonies, funding awards). Offer journalists opportunities to visit the hub and interview participants. When speaking with media, always mention that the programme is funded or co-funded by the European Union, following the funding statement guidelines.

Engage the public through community events. Host open days, coding taster sessions, exhibitions of students' projects and public lectures. Use these events to recruit new participants, sign up volunteers and build relationships with local civic organisations. Offer spaces for Q&A and feedback.

15.9 Brand and visual guidelines

Develop a brand manual that covers logos, colour palette, typography, photography style and tone of voice. The manual should explain how to adapt the brand for various media (digital, print, merchandise) and languages. It should specify how to integrate

the EU emblem and funding statement with partner logos, following the rules in section 15.5. Provide templates for PowerPoint slides, social media posts, press releases and newsletters. Offer guidance on accessible design (e.g., minimum font sizes, colour contrast, legible typefaces). Encourage partners to consult the brand manual when producing materials to maintain cohesion across the network.

15.10 Monitoring and evaluation of communications

To ensure communications are effective and inclusive, establish metrics and regularly review performance. Key performance indicators (KPIs) may include:

- **Reach** — website traffic, social media impressions, newsletter subscriptions, number of event attendees.
- **Engagement** — likes, shares, comments, time spent on page, webinar questions, event participation.
- **Conversion** — number of applications or registrations resulting from campaigns, donation conversions, number of new partners.
- **Audience diversity** — demographic data on participants (gender, age, ethnicity) collected via voluntary surveys; proportion of women and under-represented groups in communications.
- **Sentiment analysis** — qualitative feedback, media tone, social media sentiment.
- **Compliance** — proportion of materials correctly using the EU emblem and funding statement.

Use analytics tools integrated into social media platforms, website metrics (e.g., Google Analytics), and survey results. Evaluate regularly (e.g., quarterly) and adjust strategy based on findings. Disaggregate data to analyse whether messages reach diverse segments. Conduct focus groups and user interviews to understand perceptions and suggestions for improvement.

15.11 Implementation roles and timeline

Establish a communications team or designate roles within existing staff. Suggested roles include:

- **Communications Lead** — responsible for strategy, planning, EU compliance and brand oversight. Coordinates with programme managers and reports to leadership. Ensures alignment with EU visibility rules.

- **Content Creator / Storyteller** — produces blogs, social media posts, press releases, videos and podcasts. Coordinates with instructors and participants to gather stories. Ensures inclusive language and imagery.
- **Digital Marketing Specialist** — manages website, social media channels, newsletters and analytics. Optimises content for search engines and accessibility.
- **Events and Community Manager** — liaises with event organisers to ensure branding and messaging are consistent. Oversees signage and material production for events and ensures EU emblem placement.
- **Design & Production** — designs visual materials, layouts and merchandise. Maintains templates and ensures they follow the brand manual and EU specifications.
- **Compliance Officer** — keeps track of EU visibility obligations and collects documentation. Works with finance and project management teams to ensure audit readiness.

Develop a communications calendar that maps out content for the year, including programme launches, hackathons, peer learning events, project milestones and awareness dates (e.g., Women in ICT Day, International Day for Migrants). Schedule regular posts on social media, newsletter issues and press releases around these dates. Use project management tools (e.g., Odoo and Notion) to assign tasks, set deadlines and track progress. Incorporate review cycles to ensure quality and inclusivity.

15.12 Conclusion and call to action

A robust communication and visibility strategy amplifies the impact of MolenGeek-style hubs and honours the contribution of the European Union. By crafting a coherent brand, tailoring messages to diverse audiences, leveraging multiple channels, complying with EU emblem requirements, and embedding inclusive and accessible practices, hubs can build recognition, attract participants and partners, and inspire replication across Europe. Communication should not be an afterthought but a continuous, participatory process that evolves with feedback and changing contexts. Implementing the principles in this chapter will ensure that the voices of learners, communities and the EU resonate, reinforcing the project's legacy and contributing to a more inclusive digital future.

Chapter 16 – Legal, Regulatory and Ethical Compliance

Replicating the MolenGeek model across different countries requires more than pedagogical expertise and community mobilisation. Hubs must operate within complex legal frameworks that protect participants, staff, partners and the broader public. Compliance is both a moral imperative and a condition of funding: failure to meet regulatory requirements can lead to legal liability, financial penalties and reputational damage. This chapter outlines the key areas of legal and ethical compliance that organisers must address when establishing and running an inclusive tech hub. It provides practical guidelines for choosing a legal structure, protecting personal data, implementing codes of conduct, ensuring equality and non-discrimination, managing health and safety, structuring contracts, safeguarding intellectual property and maintaining financial transparency.

16.1 Choosing the right legal form and governance

A hub's legal structure determines how it is regulated, taxed, governed and funded. Common forms include non-profit associations, foundations, social enterprises, cooperatives and public-private partnerships. Each form carries distinct obligations regarding governance, reporting and accountability. In Belgium, for example, many social innovation hubs are organised as non-profit associations (ASBL/VZW), which require a board of directors, annual general meetings and transparent accounting. In the Netherlands, social enterprises may operate as foundations (stichting) or private limited companies with a public benefit status (B.V. with ANBI status), while in Italy non-profit associations or social cooperatives (cooperativa sociale) are common. When selecting a legal form, consider:

- **Mission alignment.** Ensure that the legal vehicle can own and operate training programmes, coworking spaces and events while embedding social impact in its statutes.
- **Governance requirements.** Some forms require a board of directors, supervisory committee or external auditors. Assess the capacity of partners to fulfil these roles.
- **Tax and financial implications.** Non-profit status may confer tax exemptions but restrict profit distribution. Social enterprises may generate revenue but must reinvest surpluses into their mission.
- **Liability.** Choose a structure that protects board members and volunteers from personal liability while covering the hub's activities.
- **Cross-border operations.** If the hub will operate across EU member states, consider establishing separate legal entities per country and coordinating via a

network agreement, or adopting a European legal form (e.g., European Cooperative Society).

Whichever form is chosen, governance documents (statutes, bylaws) should articulate the mission, define roles and responsibilities, specify decision-making processes and embed mechanisms for transparency and accountability.

16.2 Data protection and privacy (GDPR)

Digital skills programmes collect and process personal data from applicants, students, staff, volunteers, mentors and donors. In the EU, the General Data Protection Regulation (GDPR) sets stringent requirements on how organisations handle such data. GDPR distinguishes between **data protection** (keeping data safe from unauthorised access) and **data privacy** (empowering individuals to control how their data is used). To comply:

91. **Determine lawful basis.** Identify whether you process data based on consent, contract, legitimate interest, legal obligation or vital interests. Consent must be informed, freely given and revocable.
92. **Inform data subjects.** Articles 12–14 of the GDPR require controllers to explain how data is processed “in a concise, transparent, intelligible and easily accessible form, using clear and plain language”. When collecting data, you must communicate what information is collected, why it is collected, how long it will be stored and who will access it.
93. **Respect data subject rights.** Individuals have the right to access their data (Article 15), correct inaccurate data (Article 16), have data erased (“right to be forgotten”, Article 17), restrict processing (Article 18), receive data in a portable format (Article 20) and object to processing (Article 21). Hubs must implement procedures to respond to such requests within statutory deadlines.
94. **Minimise and secure data.** Collect only data necessary for defined purposes, store it securely, encrypt sensitive information and restrict access to authorised personnel. Conduct Data Protection Impact Assessments (DPIAs) for high-risk processing (e.g., using biometric attendance systems). Maintain records of processing activities and update them regularly.
95. **Appoint a Data Protection Officer (DPO).** Organisations processing large volumes of sensitive data or monitoring individuals systematically should designate a DPO to oversee compliance, train staff and liaise with supervisory authorities.

96. Data processing agreements. When sharing personal data with third-party services (e.g., learning management systems, CRM software), sign data processing agreements specifying the processor's obligations, data security measures, breach notification procedures and restrictions on sub-processing.

97. Transparency and accountability. Document policies and procedures, provide privacy notices and train staff. Keep logs of consent and data subject requests. Report data breaches to the supervisory authority within 72 hours if there is a risk to individual rights.

Privacy and dignity in storytelling. Beyond compliance with GDPR, ethics demand respect for the privacy and dignity of participants. NDIA's manual warns that impact stories should empower community members and emphasises obtaining informed consent, using preferred names and languages, and highlighting achievements rather than deficits. When sharing stories or images, ensure anonymity where appropriate and provide translators if necessary.

16.3 Ethics and codes of conduct

Creating a safe, respectful and inclusive environment is a legal and ethical obligation. Harassment and discrimination not only harm participants but also expose organisers to liability under anti-discrimination and harassment laws.

Adopt a code of conduct. The widely used Hack Code of Conduct states that hackathons must provide a harassment-free experience for everyone regardless of gender, gender identity and expression, age, sexual orientation, disability, physical appearance, body size, race, ethnicity, nationality or religion. It prohibits sexual language and imagery at any hackathon venue and extends the policy to presentations, workshops and online media. The code defines harassment broadly to include offensive comments, unwelcome attention, stalking, non-consensual photography and intimidation^[9]. It specifies that participants asked to stop harassing behaviour must comply immediately and that organisers may sanction or expel offenders. Sponsors and partners must also adhere to the anti-harassment policy and not use sexualised imagery or uniforms.

Implementation. Display the code of conduct prominently online and at events. Brief staff and volunteers on how to handle reports of harassment. Provide anonymous reporting channels. Establish a response protocol: triage the situation, protect victims, document incidents, impose sanctions and involve law enforcement if necessary. Post clear contact details of safeguarding officers or designated persons. Encourage bystander intervention.

Safeguarding minors and vulnerable adults. If programmes serve minors, additional protections apply. Require staff and volunteers working with minors to obtain background checks and safeguarding training. Adopt child protection policies covering supervision ratios, physical boundaries and reporting obligations.

16.4 Equality, inclusion and non-discrimination

Hubs must comply with national and EU anti-discrimination laws and promote equal opportunities. Although EU directives vary by member state, they prohibit discrimination on grounds of sex, race, ethnicity, disability, age, sexual orientation, religion and belief in employment and service provision. Programmes should:

- **Implement inclusive recruitment.** Remove unnecessary prerequisites, provide accessible application forms and advertise in diverse communities.
- **Provide reasonable accommodations.** Offer assistive technologies, flexible schedules and accessible venues for people with disabilities.
- **Mainstream gender and diversity.** The European Parliament's inclusive communication guidelines emphasise that campaigns should tailor messaging based on data disaggregated by gender and other identities to avoid excluding segments of the target group. They advise ensuring that communications and events reach beyond the "usual suspects" and represent diverse speakers and images.
- **Train staff on unconscious bias and cultural competence.** Provide workshops on inclusive practices and intersectionality. Evaluate recruitment and learning outcomes to identify disparities and improve interventions.

16.5 Health, safety and insurance

Maintaining the physical safety of learners, staff and visitors is a non-negotiable responsibility. Organisers must comply with national health and safety regulations, fire codes and building standards. For events, produce a comprehensive event safety plan covering risk assessment, emergency response and coordination with authorities. An Irish event safety guide lists six key components: a comprehensive risk assessment to identify hazards and prioritise controls; emergency response protocols (evacuation routes, medical provision, fire safety plans and contingency scenarios); a communication strategy with clear channels; event layout design that ensures efficient crowd movement; training and staffing to assign clear roles; and coordination with local agencies such as police, fire and medical responders.

Steps to follow:

- **Risk assessment.** Evaluate hazards (infrastructure, weather, crowd dynamics) and apply control measures (elimination, substitution, engineering, administrative controls and personal protective equipment). Update risk assessments as plans evolve.
- **Emergency preparedness.** Develop response protocols detailing evacuation routes, on-site medical resources, fire safety measures and contingencies for severe weather, terrorism or crowd surges.
- **Communication and training.** Establish internal and external communication channels. Train staff, volunteers and vendors on their roles. Conduct drills to test plans. Provide clear signage and announcements during events.
- **Insurance.** Obtain appropriate coverage: general liability (to cover injuries or property damage), professional indemnity (for advice or training services), property insurance (for equipment), and event cancellation insurance where relevant. Verify that vendors and partners carry their own insurance.
- **Accessibility and inclusivity.** Ensure venues meet accessibility standards (ramps, lifts, accessible restrooms) and provide quiet rooms, seating accommodations and gender-neutral facilities. See Chapter 4 for physical hub guidelines and Chapter 8 for event management.

16.6 Contracts, agreements and intellectual property

Formal agreements protect the interests of all parties and clarify rights and obligations. Key documents include:

- **Partnership Memoranda of Understanding (MoUs).** Define the scope, objectives, roles, responsibilities, resource commitments, data sharing protocols, confidentiality and termination conditions of partnerships with companies, government agencies and NGOs.
- **Training agreements.** Specify the duration, curriculum, learning outcomes, attendance requirements, assessment methods, certification and conditions for withdrawal. Include clauses on the use of training materials and intellectual property.
- **Volunteer agreements.** Clarify roles, supervision, training, codes of conduct, confidentiality, data protection obligations and insurance.
- **Event waivers.** For hackathons and workshops, require participants to sign waivers acknowledging risks, agreeing to the code of conduct and consenting to recording and photography. Include a release of liability and a media consent clause that respects privacy and dignity.

- **Data processing agreements.** When sharing personal data with external service providers (learning management systems, mailing list services, CRM), use agreements specifying data handling procedures, confidentiality, security measures, breach notification and data deletion.

Intellectual property (IP). Clarify ownership of curriculum content, software code produced during hackathons and digital assets. Consider using open licences (e.g., Creative Commons) for educational materials to facilitate sharing while protecting moral rights. Where commercial exploitation is possible (e.g., start-ups emerging from hackathons), define ownership shares and revenue-sharing agreements. Protect the hub's brand through trademark registration and monitor unauthorised use.

16.7 Financial compliance and reporting

Financial integrity is central to sustaining trust with funders, partners and communities. Hubs receiving public funds must comply with grant agreements and financial regulations. Requirements include:

- **Accurate bookkeeping.** Maintain transparent financial records of income and expenses. Use standard accounting software and reconcile accounts regularly. Retain invoices and receipts for audits.
- **Budget control.** Monitor spending against approved budgets. Create contingency buffers for unforeseen expenses. Seek approval from funders before reallocating funds across budget categories.
- **Reporting.** Submit interim and final financial reports according to funding agreements. Provide narrative explanations of budget variances.
- **Procurement.** Follow procurement guidelines (e.g., obtaining competitive quotes) and avoid conflicts of interest. Document selection processes and criteria.
- **Anti-fraud measures.** Implement internal controls to prevent misuse of funds: segregation of duties, approval hierarchies, audit trails and whistle-blowing channels. Conduct periodic internal and external audits.
- **Tax compliance.** Register for and comply with VAT, payroll taxes and any local taxes. Issue tax receipts for donations and ensure donor compliance with gift aid or tax deduction schemes.

16.8 Compliance management and continuous improvement

Compliance is an ongoing process rather than a one-off checklist. To manage legal and ethical obligations effectively:

- **Appoint a compliance officer or team.** Assign responsibility for monitoring regulatory changes, updating policies, training staff, documenting compliance and liaising with authorities.
- **Develop policies and procedures.** Write clear policies on data protection, health and safety, codes of conduct, diversity and inclusion, conflict of interest, procurement and finance. Make them accessible to staff and participants. Review them annually.
- **Conduct training.** Provide regular induction and refresher training on GDPR, safeguarding, equality and inclusion, health and safety and ethical storytelling. Use scenario-based exercises to reinforce understanding.
- **Perform audits and risk assessments.** Schedule internal audits to evaluate compliance and identify gaps. Use risk registers (see Chapter 13) to monitor legal risks and mitigation measures. Respond to audit findings promptly.
- **Engage legal counsel.** Consult lawyers familiar with non-profit and social enterprise law, data protection, labour law and intellectual property. Seek advice before entering contracts or launching new activities.
- **Monitor legislative changes.** EU and national laws evolve. Subscribe to updates from supervisory authorities, join networks (e.g., European networks for social enterprises) and participate in webinars. Adjust policies accordingly.

16.9 Conclusion

Legal and ethical compliance protects participants and staff, safeguards the organisation's reputation and ensures eligibility for public funding. By selecting an appropriate legal structure, adhering to data protection rules, adopting codes of conduct, promoting equality, ensuring health and safety, drafting clear contracts, respecting intellectual property and maintaining financial integrity, Molengeek-style hubs can operate responsibly and sustain their impact. Compliance is not a static goal but a dynamic practice that evolves with changes in law, technology and community needs. Embedding compliance into governance and culture enables hubs to focus on their mission — empowering diverse populations through digital skills, community and opportunity.

Final Words

Together for an Inclusive Digital Future

This handbook brings together all the essential knowledge, tools, and strategies needed to replicate the MolenGeek model and build inclusive, community-driven tech hubs. All checklists, templates, and toolkits referenced throughout the chapters are available in the **Annexes** section for practical use and adaptation.

For anyone interested in developing a local hub or joining our ecosystem, we warmly invite you to contact us through our official platforms and social networks. Together, we can continue to empower communities, bridge the digital divide, and shape a more inclusive and innovative future.