KTSoftSkills - Soft Skills for Knowledge Transfer - Project n. 2022-1-IT02-KA220-HED-000089663

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🔒 Confidential Brief – University of Novaris Team

The University of Novaris is home to a leading-edge research lab in quantum materials. Over the last four years, a research team at the **Advanced Materials Lab** has developed **QuantumX,** a novel material that enables ultra-low energy data storage at room temperature. This breakthrough has the potential to revolutionize data centers, computing, and mobile technologies, reducing energy consumption by over 70%.

PhotonEdge Inc., one of the leading companies in emerging memory technologies, has approached the university with interest in co-developing and commercializing QuantumX.

Meeting Background

Both parties recognize the high potential of the technology but also acknowledge that significant R&D effort is needed to move QuantumX from a lab prototype to a scalable product. After a series of exploratory meetings and a successful joint pilot project, both parties recognized the value of a Joint Venture (JV) co-founded by two organizations.

Previously, parties have already agreed on several fundamental issues such as share splits, revenue sharing schemes, and IP ownership. In the upcoming meeting, they must now negotiate and finalize four operational aspects of the Joint Venture.

Involved Parties

The University of Novaris	PhotonEdge Inc.
Head of Technology Transfer Office	VP of Strategic Innovations
University Legal Counsel	Company Lawyer
Head of Advanced Materials Lab	Unit Head of R&D

Your task is to come up with an agreement on all 4 issues. If you can't agree on all the issues, the negotiation will not be valid.

Please see the scorecard on the last page. Your main goal is to get as many points as possible. If you get less than 100 points, the deal is not valid.

Detailed Information on Key Issues

Investment Contribution

The QuantumX joint venture requires an initial investment of **€2 million** to fund R&D infrastructure, staffing, and early development activities. Both the University of Novaris and PhotonEdge Inc. must decide how to divide this financial responsibility. In theory, University can financially cover at much as **€1.8 million** including in-kind contributions (e.g., lab space, personnel).

However, the university's core mission is academic and educational, not commercial risk-taking. Therefore, your team prefers not to pay more than **€200.000**. University budgets are often restricted and must prioritize teaching, student services, and basic research. Over-contributing financially may set a risky precedent for future partnerships and can raise ethical and regulatory concerns.

Equipment & Software

One of the critical operational decisions in the QuantumX joint venture is selecting which **equipment and software toolkit** will be used in the joint R&D environment. This includes simulation tools, prototyping systems, testing equipment, and lab infrastructure. The choice directly affects **workflow compatibility, IP protection, data security, training requirements**, and the efficiency of technology transfer between the partners. It also has long-term implications for the ownership and standardization of any processes or innovations that emerge from the joint venture.

Your team prefers your own **university software & hardware kit** because it leverages your existing infrastructure—publicly funded, proven, and aligned with academic research protocols. It also allows university researchers and students to work in a familiar, accessible environment without requiring steep learning curves or license transitions. On the other hand, **PhotonEdge software & hardware kit** is the least favorable to the university, as it may restrict student access, introduce proprietary barriers to publishing or thesis work. A **third-party software and hardware kit** can be a compromising solution.

The Location of the R&D Centre

Another key operational decision in the QuantumX joint venture is determining the **physical location of the joint R&D centre**. This facility will host researchers, equipment, and collaborative development teams from both the University of Novaris and PhotonEdge Inc. The location impacts day-to-day logistics, researcher engagement, student participation, and even long-term governance and visibility of the venture. All five possible locations require approximately the same level of financial resources.

Your team strongly prefers your **University Campus,** as it enables direct involvement of faculty, easy access for students, and seamless integration into further research collaborations. **PhotonEdge Campus** is the least desirable, as it may isolate the QuantumX from students, reduce academic oversight, and discourage participation by researchers concerned with corporate constraints. **A space that is somewhere in the middle** presents a good compromise, offering neutral ground while allowing structured engagement from both sides.

Student engagement

Another major goal of the meeting is to define how **students and emerging talent** will be engaged in the R&D and commercialization process. Both partners recognize that involving students not only builds workforce capacity but also strengthens innovation pipelines and ensures knowledge transfer. The options on the table range from internships and thesis projects to entrepreneurial and training initiatives.

Your team prefers **paid Internships within the Venture** because it offers students hands-on industry experience without compromising academic priorities, while also strengthening employability. These internships can be clearly structured, ethically managed, and are more scalable than academic research positions. **Research Assistant Roles** are less desirable as it may create blurred boundaries around publication rights, IP ownership, and academic supervision responsibilities. **Thesis Collaborations** serves as a reasonable compromise—allowing academic continuity while still aligning student

work with real-world challenges posed by the joint venture.

Issue	Options	University Points
Investment	€ 200 000 University, € 1 800 000 Company covers	85
	€ 500 000 University, € 1 500 000 Company covers	75
	€ 700 000 University, € 1 300 000 Company covers	45
	€ 1 000 000 University, € 1 000 000 Company covers	20
	€ 1 300 000 University, € 700 000 Company covers	15
	€ 1 500 000 University, € 500 000 Company covers	10
	€ 1 800 000 University, € 200 000 Company covers	5
Equipment & Software	PhotonEdge software & hardware kit	15
	3rd party software & PhotonEdge hardware	20
	3rd party software & hardware kit	25
	3rd party software & university hardware	55
	University software & hardware kit	65
Location of the R&D Centre	University Campus	75
	Close to the university	65
	In the middle	25
	Close to PhotonEdge	20
	PhotonEdge Campus	15
Student Engagement	Startup Programs	10
	Thesis Collaborations	15
	Paid Internships within the Venture	25
	Joint Skills Academy or Certificate Programs	15
	Research Assistant Roles in the R&D projects	5

Please don’t share any of the information in this table with anyone.

🔒 Confidential Brief – PhotonEdge Inc.

PhotonEdge Inc., one of the leading companies in emerging memory technologies. In order to stay on top of a highly competitive and innovative industry, the company is constantly searching for recently emerging technologies that can give a competitive edge.

This was the reason why your team has approached **the University of Novaris** which is the home to a leading-edge research lab in quantum materials. Over the last four years, a group of researchers at the **Advanced Materials Lab** has developed **QuantumX.**

QuantumX is a novel material that enables ultra-low energy data storage at room temperature. This breakthrough has the potential to revolutionize data centers, computing, and mobile technologies, reducing energy consumption by over 70%.

Meeting Background

Both parties recognize the high potential of the technology but also acknowledge that significant R&D effort is needed to move QuantumX from a lab prototype to a scalable product. After a series of exploratory meetings and a successful joint pilot project, both parties recognized the value of a Joint Venture (JV) co-founded by two organizations.

Previously, parties have already agreed on several fundamental issues such as share splits, revenue sharing schemes, and IP ownership. In the upcoming meeting, they must now negotiate and finalize four operational aspects of the Joint Venture.

Involved Parties

The University of Novaris	**PhotonEdge Inc.**
Head of Technology Transfer Office	VP of Strategic Innovations
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Your task is to come up with an agreement on all 4 issues. If you can't agree on all the issues, the negotiation will not be valid.

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Detailed Information on Key Issues

Investment Contribution

The QuantumX joint venture requires an initial investment of **€2 million** to fund R&D infrastructure, staffing, and early development activities. Both the University of Novaris and PhotonEdge Inc. must decide how to divide this financial responsibility.

PhotonEdge Inc. wants to minimize its cash or in-kind contribution to reduce financial exposure in an early-stage, high-risk venture where commercial success is still uncertain. Your team anticipates bearing future costs related to product development, scaling, and regulatory compliance, which will far exceed initial R&D spending. Keeping upfront investment low allows the company to preserve capital for later-stage commercialization efforts where its core expertise and resources will be most critical.

Equipment & Software

One of the critical operational decisions in the QuantumX joint venture is selecting which **equipment and software toolkit** will be used in the joint R&D environment. This includes simulation tools, prototyping systems, testing equipment, and lab infrastructure. The choice directly affects **workflow compatibility, IP protection, data security, training requirements**, and the efficiency of technology transfer between the partners. It also has long-term implications for the ownership and standardization of any processes or innovations that emerge from the joint venture.

Your team strongly prefers your existing **company software & hardware** because it ensures full control over the technological environment, protects proprietary data workflows, and guarantees compatibility with your internal manufacturing and commercialization systems. This setup accelerates development by using familiar tools and minimizes integration or retraining costs. Conversely, **university software & hardware** is the least attractive to PhotonEdge, as it risks introducing inefficiencies, lacks standardization with industrial systems, and may jeopardize IP security due to academic tool licensing terms and open science policies. A **third-party software and hardware kit** can be a compromising solution.

The Location of the R&D Centre

Another key operational decision in the QuantumX joint venture is determining the **physical location of the joint R&D centre**. This facility will host researchers, equipment, and collaborative development teams from both the University of Novaris and PhotonEdge Inc. The location impacts day-to-day logistics, researcher engagement, student participation, and even long-term governance and visibility of the venture. All five possible locations require approximately the same level of financial resources.

Your team strongly prefers **PhotonEdge Campus** because it provides full integration with its product development teams, secure data environments, and direct access to proprietary infrastructure and senior engineers. **University Campus** is the least attractive, as it may introduce restrictions around data handling, and limitations on physical access or scheduling. **A space that is somewhere in the middle** is viewed as a fair compromise that provides manageable logistics for both partners.

Student engagement

Another major goal of the meeting is to define how **students and emerging talent** will be engaged in the R&D and commercialization process. Both partners recognize that involving students not only builds workforce capacity but also strengthens innovation pipelines and ensures knowledge transfer. The options on the table range from internships and thesis projects to entrepreneurial and training initiatives.

Your team strongly favors **paid Internships** because it allows the company to evaluate and develop talent directly and manage project scopes effectively. Interns can contribute to defined tasks without the complexity of academic constraints or long-term obligations. **Research Assistant Roles** are the least preferred, as they often involve university-driven timelines, unclear deliverables, and divided accountability. **Joint Skills Academy or Certificate Programs** could be a good compromise — offering broader impact, standardized training, and visibility for both the university and the company, while building a shared innovation culture.

Issue	Options	Pho.Edge Points
Investment	€ 200 000 University, € 1 800 000 Company covers	5
	€ 500 000 University, € 1 500 000 Company covers	10
	€ 700 000 University, € 1 300 000 Company covers	15
	€ 1 000 000 University, € 1 000 000 Company covers	20
	€ 1 300 000 University, € 700 000 Company covers	45
	€ 1 500 000 University, € 500 000 Company covers	75
	€ 1 800 000 University, € 200 000 Company covers	85
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Location of the R&D Centre	University Campus	15
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