Key Enabling Technologies for Clean Production Survey

Fields marked with * are mandatory.

All the data provided will be used by the project KET4CP. The participants may be re-contacted by KET4CP consortium for further information.

Registration

*Contact Person

*Telephone or email

*Country (drop down)
- ○ Austria
- ○ Belgium
- ○ Bulgaria
- ○ Croatia
- ○ Cyprus
- ○ Czech Republic
- ○ Denmark
- ○ Estonia
- ○ Finland
- ○ France
- ○ Germany
- ○ Greece
- ○ Hungary
- ○ Ireland
- ○ Italy
- ○ Latvia
- ○ Lithuania
- ○ Luxembourg
- ○ Malta
- ○ Netherlands
- ○ Poland

- ○ Portugal
- ○ Romania
- ○ Slovak Republic
- ○ Slovenia
- ○ Spain
- ○ Sweden
- ○ United Kingdom

Part 1. General Information

* 1. Is your company an SME? If you are not certain that you fulfil the conditions set by the EC, please consult the SME Self-Assessment Questionnaire.

- ○ Yes
- ○ No

* 2. What is your company size?

- ○ Micro <5
- ○ Small <50
- ○ Medium <250

* 3. Which sector are you active in?
Check all that apply

- ☐ Aeronautics & space
- ☐ Agriculture
- ☐ Automotive / transportation
- ☐ Green Chemistry
- ☐ Chemicals and plastics
- ☐ Construction & building sector
- ☐ Consumer goods/products
- ☐ Energy
- ☐ Environment
- ☐ Food and Beverages
- ☐ Forestry and forest-based industry
- ☐ ICT industry, hardware (including electronics, computer and communication related products)
- ☐ ICT industry, software and services (system installation, training, etc.)
- ☐ Industrial Biotechnology
- ☐ Measurements/standards
- ☐ Medical & Healthcare
- ☐ Maritime & Marine
- ☐ Production technology (machinery / equipment / automation)
- ☐ Service
- ☐ Textile and Textile Products
- ☐ Tourism
- ☐ Consulting, training, education, social services

Other, please specify

[   ]

* 4. Does your company conduct in-house research for new product development?

○ Yes
○ No

If yes, please indicate the number of employees involved in R&D activities.

[   ]

Part 2. Innovation and Key Enabling Technologies (KET)

* 5. In terms of innovation development and business growth, what are the factors that you find most challenging?
Check all that apply

☐ Access to finance
☐ Efficiency pressures (time)
☐ Lack of production capacity
☐ Low technological awareness
☐ Lack of knowledge and/or innovation skills
☐ Information overload

Other, please specify

[   ]

* 6. How important is clean, sustainable or green production for your company?

○ Not at all important
○ Slightly important
○ Moderately important
○ Important
○ Very Important

* 7. How important is optimizing production facilities for your company?

○ Not at all important
○ Slightly important
○ Moderately important
○ Important
○ Very Important

* What are the major objectives for you in improving your production process (if any)?

☐ reducing production costs
☐ reducing reliance on raw materials

- [ ] reducing consumption of energy
- [ ] reducing generation of waste and pollution
- [ ] other (please specify)
- [ ] we have no plans to improve our production process

*8. Do you use external support to implement business and process improvement within your company?

- ( ) Yes
- ( ) No

If yes, how do you finance this support?
Check all that apply

- [ ] Micro Grant
- [ ] Loan
- [ ] Voucher
- [ ] Equity

Other, please specify

[   ]

*9. Which Key Enabling Technologies are more relevant for your business?
Choose all that apply

- [ ] Nano medicine
- [ ] Nano membranes
- [ ] Nanostructured coatings
- [ ] Nanoparticles Nanowires and tubes
- [ ] Nano emulsions and pigments
- [ ] 2D materials
- [ ] Electronic and optical functional materials
- [ ] Environmental materials (e.g. recycling, recourse efficiency, less impact, CO_2 capture/ utilisation)
- [ ] Industrial materials (incl. catalysts, membranes, adhesives, filters)
- [ ] High performance materials (strong, light, weight, resistant)
- [ ] Materials for energy storage and generation
- [ ] Smart and multifunctional materials (incl. phase change, shape memory, self-healing, self-manufacturing)
- [ ] Surface engineering and coatings
- [ ] Smart Manufacturing / Industry 4.0
- [ ] Robotics/Human machine interaction
- [ ] Process industry (processing novel materials, structures, etc.)
- [ ] Monitoring and control
- [ ] High performance computing / cloud based simulation services
- [ ] Additive manufacturing
- [ ] High-performance production (flexibility, productivity, precision and zero defect)
- [ ] High -performance, high precision processing
- [ ] Intelligent/ sensor-based equipment
- [ ] Vitamins
- [ ] Polymers, bioplastics

- ☐ High value food & feed additives
- ☐ Enzymes
- ☐ Amino acids
- ☐ Antibiotics
- ☐ Bio based chemicals
- ☐ Biofuels
- ☐ Enzymology
- ☐ Microbiology (Bacteria + Fungi)
- ☐ Metabolic modelling
- ☐ Waste Valorisation
- ☐ Waste Water Management
- ☐ Large-scale monitoring / industrial processes environment
- ☐ Quantum technology
- ☐ Optoelectronics (Optical networks, optical sensors)
- ☐ Outsides system connectivity (communication, data transfer, Wi-Fi)
- ☐ Power electronics
- ☐ Printed/flexible electronics
- ☐ Memory and storage
- ☐ Equipment technology
- ☐ Analogue and mixed signal devices (micro-wave, RF, THz)
- ☐ Computing (low power computing, high performance computing, new computing)
- ☐ Heterogeneous components & more than Moore (MEMS, NEMS, sensors, transducers)
- ☐ Heterogeneous integration embedded systems
- ☐ Displays (LCD, plasma)
- ☐ Photodetectors (solar cells, photo diodes, photo transistors)
- ☐ Optical fibres
- ☐ Laser based applications
- ☐ Lighting (LED, OLED)
- ☐ Optical communication and networks
- ☐ Optical components & systems

* 10. Do you know how KETs can enhance, improve and optimize your production/value chain?

- ○ Not really
- ○ Moderately
- ○ Yes

* 11. Has your company launched specific initiatives within the KET area?

- ○ Yes
- ○ No

* 12. Does your company plan to initiate any KET initiatives in the next period?

- ○ Yes
- ○ No

If yes, would your company need external support to launch a KET initiative?

- ○ Yes

○ No

* 13. What channels do you use to inform yourself on the latest technological developments of KET applications?

☐ KET technology centres

☐ Newsletters

☐ Internet

☐ Conferences/Info days

☐ Practices from your competitors

☐ Practices from other industry sectors

Other, please specify

[   ]

Part 3. Collaboration with KET Technology Centers (TCs)

KETs Technology Centres help SMEs cross the 'Valley of Death' and go from lab to market to develop and produce new KETs-based products. They help companies reduce the time-to-market for new ideas. KETs Technology Centres are public or private organisations carrying out applied research and close-to-market innovation (Technology Readiness Levels TRL 3 to 8, not necessarily the whole range) in Key Enabling Technologies (KETs).

* 14. Have you ever collaborated with a KET TC?

○ Yes

○ No

If you answer **Yes** in Question 14, please skip Part 3.a and go directly to part 3.b

Part 3.a Questions for SMEs **without** experience in collaboration with KET TCs

15. What are the reasons for not having collaborated with a KET TC, so far?
Check all that apply

☐ We like doing everything internally

☐ There is no need for collaboration

☐ We don't really know what services are offered by a KET TC

☐ There are no KET TCs in my region

☐ The services are too expensive

☐ The collaboration contract is too complex Unresolved IP-related issues

☐ The services that we need are not available in KET TC service portfolios

☐ Low level of trust

☐ There are no communication channels between the KET TC and my company

☐ The most suitable KETC TC does not have a good reputation

Other, please specify

[   ]

16. Do you have a technology problem that you would expect to address with the help of KET TC services?
- ○ Yes
- ○ No

If yes, please indicate below the area or areas where you would need support from a KET TC:
- ☐ Technology awareness and networking
- ☐ Access to specialist facilities and expertise
- ☐ Trouble shooting, testing and analysis
- ☐ Product/process validation, qualification and/or certification
- ☐ Concept development, design and prototyping
- ☐ Product/process development and scale up
- ☐ Skills and training (mentoring and coaching)
- ☐ Business and operational innovation
- ☐ Collaborative research and development
- ☐ Custom Manufacturing

Other, please specify

[   ]

17. How important is the geographical proximity with a KET TC partner?
- ○ Not at all important
- ○ Somewhat important
- ○ Important
- ○ Very important

18. How far (geographically) would your organisation be willing to travel to access a KET TC?
- ○ Only within my region
- ○ Only within my country
- ○ Across my country and neighbouring countries
- ○ Across Europe
- ○ Globally

19. Would you consider language to be a barrier for future collaboration with a KET TC in another country?
- ○ Yes
- ○ No

20. How would your company finance a possible collaboration with a KET TC?

- ☐ Micro Grant
- ☐ Loan

☐ Voucher

☐ Equity

☐ Own cash

Other, please specify

[ ]

21. Would you need our support to find the right / most suitable KET TC for you?

○ Yes

○ No

Part 3.b Questions for SMEs with experience in collaboration with KET TCs

22. How many times have you collaborated with a KET TC in the last 5 years?

○ 1 to 3 times

○ 4 to 6 times

○ 7-9 times

○ More than 10 times

23. Did any of these collaborations involved a KET TC from another country?

○ Yes

○ No

If yes, please indicate the number of collaborations and the different countries involved.

[ ]

24. How did you initiate/establish contact with the KET TC?

Check all that apply

☐ Personal contact

☐ Online advertisement

☐ KET TC web site

☐ EU-funded project

Other, please specify

[ ]

25. What type of services did you receive from the KET TC?

Check all that apply

- [ ] Technology awareness and networking
- [ ] Access to specialist facilities and expertise
- [ ] Trouble shooting, testing and analysis
- [ ] Product/process validation, qualification and/or certification
- [ ] Concept development, design and prototyping Product/process development and scale up
- [ ] Skills and training (mentoring and coaching)
- [ ] Business and operational innovation Collaborative research and development
- [ ] Custom Manufacturing

Other, please specify

_____

26. Why did you choose to collaborate with a KET TC?
Check all that apply

- [ ] To increase awareness of technology area
- [ ] To access or gain skills
- [ ] For access to facilities
- [ ] For access to expertise
- [ ] To solve a current problem
- [ ] To validate products or processes
- [ ] To collaborate with on a wider project

Other, please specify

_____

27. What were the gains from your collaboration with the KET TC?
Check all that apply

- [ ] New product/service/process development
- [ ] First/Second source for production
- [ ] Shorter Time-to-market
- [ ] Improvement of our technological skills
- [ ] Enhancement of the company's network
- [ ] Access to knowledge/expertise about latest technology trends, scientific achievements, inventions
- [ ] Strengthening our competences and competitiveness in new areas of expertise that would take long period to achieve without KET TC collaboration
- [ ] Access to pool of potential top experts and new employees (e.g. young researchers/PhDs)
- [ ] Access to R&D infrastructure (equipment, space, expert service)

Other, please specify

_____

28. What challenges did you encounter when collaborating with the KET TC?
Check all that apply

- ☐ Services too expensive
- ☐ Process too complicated
- ☐ Difficulty to establish points of contact
- ☐ Low responsiveness level
- ☐ No alignment between the technology and the business model of the company
- ☐ Lack of understanding of the company's business needs by KET TC
- ☐ Outcomes were not satisfactory
- ☐ Language barrier (if you collaborated with a TC abroad)
- ☐ Lack expertise for the company's specific needs
- ☐ Intellectual property issues
- ☐ No challenges

Other, please specify

[   ]

29. What are the most important criteria for choosing a KET TC?
Check all that apply

- ☐ Previous positive collaboration
- ☐ Well established KET TC
- ☐ Geographical Proximity
- ☐ Quick identification of its services
- ☐ R&D-Partner with technologically and economically neutral perspective
- ☐ Level of experience in industrial collaboration
- ☐ Relevance of KET TC services
- ☐ Relevance in sector/market
- ☐ It was recommended by a business partner

Other, please specify

[   ]

30. When collaborating with a KET TC, how important is geographical proximity for you?

- ○ Not at all important
- ○ Somewhat important
- ○ Important
- ○ Very important

31. How far (in terms of distance) would your organisation be willing to travel to access a KET TC?

- ○ Only within my region
- ○ Only within my country

○ Across my country and neighbouring countries

○ Across Europe

○ Globally

32. Do you consider language to be a barrier for international collaboration with a KET TC?

○ Yes

○ No

Stay in touch!

* Would you be interested in receiving updates from the KET4CP project and more information about its services and opportunities for your business?

○ Yes

○ No