

ACTIVE4SME

Third Deliverable

Implementation and evaluation of educational and raising awareness activities for promoting physical activity in SMEs (D3.1)

Implementing steps and processes for scaling-up physical activity initiatives to SMEs: Effectiveness evaluation (D3.2)

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1. Implementation and evaluation of educational and raising awareness activities for promoting physical activity in SMEs (D3.1)

1.1 Introduction

The overall aim of [Active4SME](#) is to develop and pilot a plan for implementing physical activity in SMEs of two European countries as a Proof-of-Concept; to be later applied and validated across a wider range of European countries in a future Erasmus+ Sport Call 2026.

To do so, the first specific objective of [Active4SME](#) aims “to reach out SMEs and key stakeholders for raising awareness and improve education on the implementation of workplace PA initiatives”. To achieve this objective and according to the four stages of the RE-AIM framework for the successful scalability of physical activity interventions (Planification, Implementation, Follow-up and Maintenance), the current delivery (D3.1) fits within the Implementation stage (WP3).

The aims of D3.1 are (i) to identify and design effective SME-specific raising awareness and formative activity, (ii) to implement the raising awareness and formative activity in two voluntary SMEs and, (iii) to evaluate the impact of the SME-specific raising awareness and formative activity on specified learning outcomes for SMEs. This will allow to identify effective raising awareness and training activities to be scaled up across SMEs in Spain and Finland; contributing to increase the awareness and education of SMEs regarding the promotion of physical activity initiatives and to enhance the learning and implementation experience of newcomers for physical activity promotion in the context of SMEs.

D3.1 contributes towards the sustainability strategy of [Active4SME](#), based on the premise that difficult access and resources for implementing physical activity initiatives in SMEs across Europe is a main obstacle to initiating physical activity promotion programs in SMEs but also to investing in their sustainability in the long term (EU-OSHA, 2012). For this reason, this delivery is built on the results identified by deliverable D2.1, which aimed to co-design effective and feasible raising awareness and training activities contents, format, schedule and learning outcomes in the context of SMEs.

1.2 Co-designed content, format, learning outcomes and process of delivery for raising awareness and training activities regarding physical activity in SMEs: Summary of delivery D2.1

From delivery D2.1, co-creation sessions with SMEs and stakeholders agreed on what could be an effective and feasible delivery process (proof-of-concept) for designing and implementing raising awareness and training activities for physical activity promotion in the context of SMEs. The delivery process and steps for raising awareness and training in SMEs are now summarized in Figure 1.

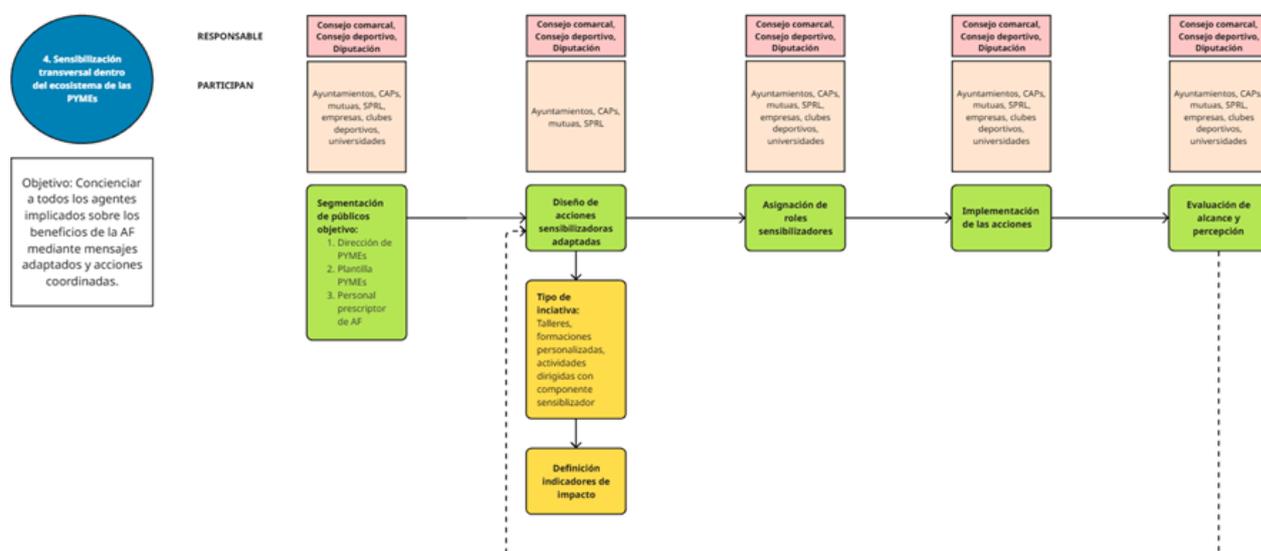


Figure 1. Training and awareness-raising process for designing, implementing and evaluating physical activity promotion awareness and training activities in SMEs.

Briefly, the identified processes and steps related to an effective and feasible implementation of education and awareness-raising activities for physical activity in SMEs include the following. **First**, education and raising awareness activities content, delivery, schedule and learning outcomes should be tailored to three different target groups: managers, workers and physical activity specialists (as professionals that should deliver and support SMEs for physical activity promotion). **Second**, raising awareness and training activities should be tailored to how each SME is organised, operates, communicates with the workers, and to the SME's health and productivity needs. **Third**, the implementation of raising awareness and training activities should be based on a private-public alliance where training activities should be co-funded by Municipal or Local Enterprises Associations with the support of Municipalities (city councils, sport municipal organisations), Supra-municipality organisations (Diputació de Barcelona) but also by municipal organizations that support SMEs in occupational health as well as public and private sport of physical

activity centres located in the municipality or local area of implementation. Fourth, the targeted content, format of delivery and schedule should be continuously evaluated by academic organizations (universities) that have an influence on the specific area where SMEs are located.

In summary, municipal and local stakeholders were identified to play a key role in improving SMEs' awareness and training on how to implement physical activity initiatives in their enterprises. Regional organisations and stakeholders were considered to play a role in supporting SMEs on promoting physical activity but not on implementation. National organisations and stakeholders were perceived to play a role in promoting to SMEs that they have a fundamental role in promoting working adults' health and wellbeing. While this was already observed in Finland, an urgent need for cultural awareness on the key role SMEs have on looking after their workers was identified in Catalonia.

1.3 Methodology for identifying effective and feasible contents, format, schedule of delivery and learning outcomes for raising awareness and training activities on physical activity promotion in the context of SMEs.

Based on the previously described processes and steps related to designing and implementing effective and feasible education and awareness-raising activities for physical activity in SMEs (Figure 1), individual semi-structured interviews were organized and performed with each stakeholder that was identified to have a role in improving training and raising awareness for physical activity in SMEs. Table 1 shows the dates when the meetings were performed both in Catalonia and Finland.

Stakeholder	Date of the meeting	
	Catalonia	Päijät-Häme
Business Council	30/06/2025	26/05/2025
Public Health Agency	01/07/2025	27/05/2025
Sports Council	02/07/2025	28/05/2025
City Council	02/07/2025	02/06/2025
Supramunicipal Council	07/07/2025	17/06/2025

Table 1. Stakeholder's meetings calendar

The individual interview guide consisted in presenting to the stakeholders the education and raising awareness process (Figure 1) that had resulted from the co-creation sessions. Then, more in-depth information was explored to identify effective and feasible contents, format and schedule of delivery as well as learning outcomes.

1.4 RESULTS: Raising awareness and educational and training activities for promoting physical activity in SMEs.

Agreement was reached on the content for the raising-awareness activities in that content should focus on the factors that SMEs identified as motivators for implementing sustainable PA in their enterprise (as seen in D2.1). Agreement was also reached on the content for training activities in that content should focus on helping to overcome the barriers for promoting physical activity and the solutions for implementation identified in D2.1.

Accordingly, agreement was reached on that the learning outcomes for effectiveness evaluation should reflect indicators that measured the motivators, barriers and solutions for implementing physical activity in the context of SMEs previously identified.

1.4.1 Raising awareness activities for promoting physical activity in SME

An exhaustive literature review analysis was carried out to identify content-related messages for raising awareness that targeted all the factors that acted as motivators for implementing physical activity in SMEs. The factors that acted as motivators were (see D2.1):

- (i) Improve the work environment by promoting workers' cohesion, teamwork and a sense of belonging
- (ii) Develop a positive brand image by promoting employees' care and well-being
- (iii) Reduce employees' sick leave and associated costs
- (iv) Increase productivity by having more motivated employees and retaining talent.
- (v) Improvement of employees' care of well-being
- (vi) Promoting talent loyalty, increased productivity and improved brand image (becoming a Healthy Company).
- (vii) Contributing to a healthier and more attractive work environment for their staff.

1.4.1.1 Feasible raising awareness messages content

From the literature review, several evidence-based raising awareness messages were developed to target each of the motivational factors before mentioned. Table 2 shows the messages that we developed to address these motivations, which could then be used in any format of delivery that was most suited to each SMEs.

Table 2. Content messages based on stakeholder motivations and scientific evidence

<p>Motivator 1: WORKPLACE SAFETY CLIMATE</p> <p><i>“Improving the safety climate reduces the risk of losing physical and mental capacity. The more safety issues, the higher the risk. Investing in safety means investing in health and performance.”</i> (Brandt et al., 2021)</p> <p>A strong perceived workplace safety climate is associated with (Kartz et al., 2024):</p> <ul style="list-style-type: none"> • 82% higher likelihood of achieving optimal sleep (OR = 1.82). • 56% higher likelihood of maintaining regular physical activity (OR = 1.56). • 37% lower incidence of back pain (OR = 0.63). • 30% lower risk of depression (OR = 0.70). • More than three times greater job and life satisfaction (OR = 3.28 and OR = 3.57). • 46% lower productivity loss (OR = 0.54).
<p>Motivator 2: COHESION / TEAMWORK</p> <p><i>“Participating in team sports at work improves health”</i></p> <ul style="list-style-type: none"> • Significant improvement in cardiorespiratory fitness (VO₂ max) (p < 0.002). • Increase of about 155 minutes of weekly physical activity compared to the control group (p < 0.006). <p>Team sports promote fitness and communication among employees, with a potential positive impact on organizational health.</p> <p><i>“Group physical exercise at work strengthens social capital”</i></p> <ul style="list-style-type: none"> • Participating in group exercise at work increases bonding social capital among teams (p = 0.02). • From baseline to 10 weeks, this social capital increased by 5.3 points (95% CI: 2.3 to 8.2), with a moderate effect (0.31). • For each additional weekly exercise session, bonding social capital at work increases by 3.5 points (95% CI: 1.2–6.0). • This effect is not observed for exercise done at home. <p>Participating in team exercise at work not only improves health but also strengthens relationships and cooperation among colleagues.</p>
<p>Motivator 3: SENS OF BELONGING</p> <p><i>“Physical activity enhances sense of community and work vigor”</i> (Di Luizo et al., 2019)</p> <ul style="list-style-type: none"> • Employees with high levels of moderate-to-vigorous physical activity (MVPA) experience a stronger connection between sense of community and work vigor. • This relationship is measured through satisfaction of the need for social connection (positive indirect effect: 0.06). • In contrast, for those engaging in low or moderate physical activity, this mediation is not significant. • Physical activity strengthens how sense of community contributes to vigor and well-being in the workplace. <p><i>“Exercising with colleagues at work improves vitality and pain management”</i> (Jakobsen et al., 2017)</p> <ul style="list-style-type: none"> • Exercising at the workplace increases vitality and helps better manage pain (small effect, Cohen’s d = 0.27–0.36). • This improvement is greater than exercising at home. • Work pace slightly increases when exercising at work. • Reduction of neck, shoulder, and lower back pain is associated with better pain control and less worry about pain. <p>Group exercise during the workday is an effective strategy to enhance employees’ physical well-being.</p>
<p>Motivator 4: CORPORATE BRAND</p> <p><i>“Occupational health: key for employees and companies”</i> (Ullberg et al., 2023)</p> <ul style="list-style-type: none"> • Employees are an essential resource, and companies are committed to a zero occupational disease vision. • Promoting healthy behaviors improves productivity and personal well-being.

<ul style="list-style-type: none"> • Health and wellness benefits help attract and retain talent. • Companies collaborate with gyms, trainers, and therapists to provide health activities and services. • These initiatives are valued and contribute to a better brand image and a healthy work environment. <p>Investing in occupational health is investing in the company's future and employees' well-being.</p>
<p>Motivator 5: PROMOTE CARE AND WELL-BEING</p> <p><i>“Physical activity protects against occupational burnout”</i> (Mincarone et al., 2024)</p> <ul style="list-style-type: none"> • Engaging in physical activity reduces the risk of emotional exhaustion and depersonalization. • The protective effect is maintained with exercise frequency ranging from once a week to daily. • Exercise is a key tool for preserving mental health and preventing burnout. <p>Incorporate physical activity to take care of your emotional well-being at work!</p>
<p><i>“Exercising at the workplace for at least 12 weeks can improve your cardiorespiratory fitness by +2.7 mL·kg⁻¹·min⁻¹. The more weeks you commit, the greater the health benefits!”</i> (Burn, 2019)</p> <p>“Proven benefits of physical activity at work” (Conn et al., 2010)</p> <ul style="list-style-type: none"> • Average increase of 612 additional daily steps in intervention groups (8,869 vs. 8,257 steps). • Improvement in cardiorespiratory fitness with +3.5 mL/kg/min in VO₂ max. • Significant reduction of 12.6 mg/dL in fasting glucose levels. • Enhancements in work attendance and reduction of stress.
<p><i>“Workplace wellness programs work!”</i> (Ryan et al., 2021)</p> <ul style="list-style-type: none"> • Over 50% of studies show a strong or moderate effect in improving both physical and psychological well-being of employees. • These programs promote employees' overall health and enhance their quality of work life.
<p>Motivator 6: PRODUCTIVITY</p> <p><i>“Workplace exercise programs are positively valued by both employees and employers for improving performance, well-being, and job satisfaction”.</i> Moreover, these programs can be a key tool in corporate social responsibility and create opportunities for sports professionals and entrepreneurship. (Miragau & Aleixo, 2021)</p> <p><i>“Reducing sitting time at work can decrease sedentary time by up to 11% in just 8 weeks”.</i> This improves employees' motivation and productivity while working. (Ojo et al., 2024)</p> <p><i>“Interventions to reduce sedentary behavior in the office are effective and easy to implement, providing visible benefits for both health and work performance”.</i> (Ojo et al., 2024)</p> <p><i>“A more active work environment is associated with increased engagement and productivity, with data showing significant improvement in just 8 weeks”</i> (Ojo et al., 2024)</p> <p><i>“Improved productivity and reduced absenteeism with specific neck exercises at the workplace”</i> (Pereira et al., 2018)</p> <ul style="list-style-type: none"> • Reduction in monetized productivity loss: AU\$276 less in the exercise group (P = 0.023) • Less presenteeism: 0.4 points lower on a 0–10 scale (P = 0.007) • Fewer sick leave days: 0.7 days less in the exercise group (P = 0.012)
<p>Motivator 7: SICK LEAVE AND RELATED COSTS</p> <p><i>“Each additional hour of weekly physical activity can reduce up to 1.2 days of sick leave per year.”</i> (López-Bueno et al., 2020)</p> <p><i>“Regular physical activity is associated with lower sick leave among university employees.”</i> (López-Bueno et al., 2020)</p> <p><i>“Incorporating physical activity into the work routine can improve health and reduce workplace absenteeism.”</i> (López-Bueno et al., 2020)</p> <p><i>“Workplace health promotion programs that encourage better nutrition and increased physical activity generate cost savings by reducing absenteeism and medical service expenses, according to observational studies”.</i> (Dongen et al., 2012)</p>
<p>Motivator 8: TALENT RETENTION</p>

“Benefits for the company of improving employees’ fitness” (WHO, 2020):

- Healthier employees with longer working lives.
- Lower staff turnover.
- Improved work quality.
- Better public relations inside and outside the organization.
- Reduction in sick leave and costs associated with illness.
- Increased productivity and fewer workplace accidents.
- Decreased stress among staff.
- Enhanced attractiveness for attracting and retaining talent.

Motivator 9: HEALTHY WORKPLACE

“Benefits of Workplace Health Promotion” (REES, 2013–2030):

- Improves employees’ Health.
- Increases business productivity.
- Enhances work climate, motivation, and participation.
- Reduces accidents and illnesses, especially chronic conditions.
- Fosters engagement and talent retention, decreasing staff turnover.
- Generates a positive return on investment (ROI) and intangible value (VOI).
- Decreases social healthcare and social security costs.

“Contributes to a better quality of life for society.”

1.4.1.2 Format, schedule and delivery of messages awareness

The stakeholders identified to play a key role in delivering the raising awareness messages for physical activity promotion in SMEs were the following (see Figure 2). (i) [Universities located in influence of SMEs](#) (for delivering university-based training and awareness programs to managers based on motivators, for delivering brief awareness to workers based on previous evidence (Codina-Nadal et al, under review) and, for general dissemination among relevant stakeholders in the municipality. (ii) [The Municipal Enterprises Association](#) (as for instant CEDO or Consell d’Empreses d’Osona) for dissemination directly to SMEs tailored to SMEs operating systems. (iii) [Regional organizations](#) like Public Health Agencies of specific regions, supra municipality organisations or external occupational health services for delivering general dissemination to the working adults.

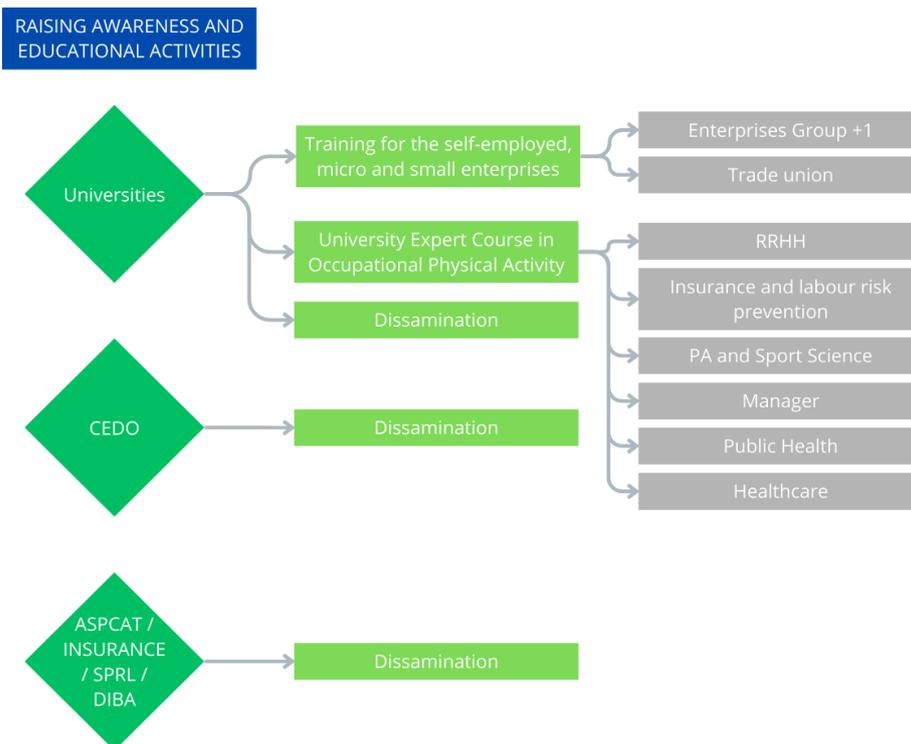


Figure 2. Process description for delivering raising awareness activities for physical activity promotion in SMEs.

The format and schedule of delivery for raising awareness activities that was agreed as feasible and effective, according to the model Input-Output-Outcome (IOOI) (Bibhu Mishra, 2018) is shown in Table 3. According to this model, the different formats of delivery are shown in the Activities column while in the output column indicators for process evaluation can be seen.

Furthermore, the outcome and impact columns identify the learning outcomes that will be used as indicators to monitor changes in awareness raising for promoting physical activity in the context of SMEs, approaching effectiveness evaluation.

Table 3. The logic model: input- output – outcome and impact (IOOI) of raising awareness activities

Input	Activities	Output/Process evaluation	Outcome/Learning outcomes for effectiveness	Impact/Learning outcomes for effectiveness
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Workplace safety climate Number of messages sent Percentage of employees who read them Feedback collected	Improved safety perception, greater compliance with protocols	Reduction in occupational accidents, established safety culture

Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Motivation: Cohesion / Teamwork Number of messages sent Percentage of employees who read them Feedback collected	Improved communication and support between colleagues	Higher team performance, more innovative and efficient projects
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Sens of belong Number of messages sent Percentage of employees who read them Feedback collected	Increased identification with the company	Less staff turnover, better work climate
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Corporate brand Number of messages sent Percentage of employees who read them Feedback collected	Reinforcement of the company image as an “employer of choice”	Improvement of reputation, attraction of talent and clients
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Promote care and well-being Number of messages sent Percentage of employees who read them Feedback collected	Better self-awareness about healthy habits	Reduced stress, increased mental and physical health
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Productivity Number of messages sent Percentage of employees who read them Feedback collected	Improved concentration and motivation	Increased productivity and quality of work
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Sick of leave and related costs Number of messages sent Percentage of employees who read them Feedback collected	Better health awareness and self-care	Reduced absenteeism and cost savings

Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Talent retention Number of messages sent Percentage of employees who read them Feedback collected	Increased employee satisfaction and loyalty	Maintaining key talent, reducing turnover
Communications material for awareness	Poster Infographics Monthly rotating posters Bi-weekly newsletters Social media Intranet	Message: Healthy workplace Number of messages sent Percentage of employees who read them Feedback collected	Well-being-oriented organizational culture	Healthy, sustainable and attractive company to work for

1.4.1.3 Effectiveness evaluation of raising awareness activities

According to the IOOI and CASP evaluation frameworks (Bibhu Mishra, 2018; Critical Appraisal Skills Programme, 2024), raising awareness activities content, format and learning outcomes will be evaluated as described below. Table 4 summarises the questions that will be used for evaluation as well as the indicators that will be used for process and effectiveness evaluation of the raising awareness activities.

- ✓ Objectives for process and effectiveness evaluation:
 - To measure recognition, message clarity and attitude towards change.
 - To detect communicative effectiveness and emotional or conceptual recall.
- ✓ “Message recognition, clarity and attitude towards change” will be evaluated through the following 7 items on a Likert scale 1–5 (*I don’t agree at all* from *I totally agree*):
 1. I have seen or received one of the campaign messages.
 2. I have clearly understood the message that is intended to be transmitted.
 3. This message has made me reflect or reconsider some practice.
 4. I believe it is relevant for small and medium-sized businesses.
 5. I feel challenged as part of the solution.
 6. It has generated interest in knowing more or taking action.
 7. The form of communication (visual/textual) has seemed right to me.
- ✓ Open question (optional):
 - Which phrase, image or idea has impacted you the most?
- ✓ Other questions:

- “Which channel did it reach you better and clearer?” (poster, networks, email...)?”
- “Do you remember any specific phrase or concept?”
- “Do you think it has influenced any recent decision of your company?”

Table 4. Summary table of the evaluation effectiveness of awareness-raising activities

Question	IOOI Evaluation	CASP Evaluation
1. I have seen or received one of the campaign messages.	Output: Measure the reach and direct exposure to the message	Clarity and validity (Did the intervention do what it intended?) Exposure, understanding and adaptation of the form
2. I have clearly understood the message that is intended to be transmitted.	Output: effective transmission of content	Clarity and validity (Did the intervention do what it intended?)
3. This message has made me reflect or reconsider some practice.	Outcome: indicates a change in attitude or personal reflection	Impact on perceptions and behaviours (What are the outcomes?) Reflection, involvement and interest in acting
4. I believe it is relevant for small and medium-sized businesses.	Outcome: Measures the perception of relevance and adequacy of content	Relevance and transferability (Is it relevant to the context/population?) Application to SMEs
5. I feel challenged as part of the solution.	Outcome: Change in involvement and active role	Impact on perceptions and behaviours (What are the outcomes?) Reflection, involvement and interest in acting
6. It has generated interest in knowing more or taking action.	Outcome: interest with projection Impact: if it translates into real action	Impact on perceptions and behaviours (What are the outcomes?) reflection, involvement and interest in acting
7. The form of communication (visual/textual) has seemed right to me.	Output: formal quality measurement of the intervention	Clarity and validity (Did the intervention do what it intended?)

1.4.2 Educational and training activities

From current workplace physical activity training in real-life, we first identified if any of the existing training activities on workplace physical activity targeted any of the motivational factors, barriers or solutions for implementing physical activity in SMEs (delivery D2.1). A summary of training activities currently available in Catalonia are summarised in Table 5 (first row). As it can be seen, only seven motivators, barriers or solutions out of twenty-one were approached by current training on workplace physical activity.

1.4.2.1 Feasible educational and training content

Feasible and effective content for training and educational activities were identified for the different target groups: managers, workers and physical activity specialists (as deliverers of physical activity in SMEs). Training contents related to motivators, barriers and solutions for promoting physical activity in SMEs were spread around two different formats of delivery for training courses according to whether the target group were workers (see Table 6) or managers/physical activity specialists (see Table 7).

Table 5. Existing training on workplace physical activity in relation with motivating factors, barriers and solutions for physical activity promotion in SMEs, according to D2.1.

	1.Promotion of health at the workplace: Training	2, Physical activity at the workplace: A Guide	3.Health prevention: Training	4.Social sciences and health promotion: Training	5.Scope of promotion and prevention	6.Course for sports physical educators in healthy physical activity and exercise programs	7.Health promoting company
MOTIVATION FACTORS							
Organizational climate							
Team Building							
Sense of belonging							
Company brand							
Promote Health and well-being							
Productivity							
Sick of leave and associated costs							
Talent							
Become a Health company							
BARRIERS (Internal)							
Lack of knowledge on how to implement physical activity in the enterprise.							
BARRIERS (External)							
Culture							
Motivation: Lack of awareness of the health-enhancing benefits of practicing physical activity and the risks of physical inactivity.							
SOLUTIONS (Internal barriers)							
Formation: Motivational on initiatives							
Formation: Encourage healthy habits with existing materials and spaces							

SOLUTIONS (External barriers)							
Training: Self-management and dynamization							
Training: Physical and mental health:							
Training: Good habits							
Training: Talks and workshops to encourage motivation							
Training: Psychosocial risks: Assessments, monitoring and corrective actions							
Changing your mindset							
Talks and workshops to encourage motivation and see the value of PA, both for workers and managers							

1. <https://www.insst.es/formacion?category=95335>
2. <https://www.insst.es/noticias-insst/ejercicio-laboral-guia-para-el-diseno-implantacion-y-evaluacion-de-un-programa-de-ejercicio-laboral-en-la-empresa-2023>
3. <https://educademia.isciii.es/curso/37>
4. <https://educademia.isciii.es/curso/49>
5. <https://promocio.cat>
6. https://esport.gencat.cat/ca/detalls/noticia/curs_infoplograma
7. <https://salutpublica.gencat.cat/ca/ambits/salut-laboral/empresa-promotora-salut/>

1.4.2.2 Feasible and effective training content for workers in SMEs

The proposed content to maximise effectiveness for training in physical activity promotion in SMEs for workers is shown in Table 6. Content should approach information on corporate branding, promoting care and well-being, promoting physical activity and on learning about municipal resources that could be used for engaging in physical activity through SMEs,

Table 6. Training content for workers in SMEs

AREA of training	Content
Corporate branding	Corporate identity
	Brand communication
	Company culture
	Recognition and prestige
Promote care and well-being	Physical health (ergonomics)
	Mental and emotional health (stress management)
	Work absenteeism (evidence-based)
	Identification of employees' real needs
Promotion of Physical Activity	Benefits of physical activity
	Strategies for promoting PA in the workplace <ul style="list-style-type: none"> - Adherence to activities - Profitability of initiatives
	Evaluation of PA programs
	Training: <ul style="list-style-type: none"> - Physical activity - Mental health - Healthy habits - Psychosocial risks
	Self-management and facilitation
	Types of initiatives <ul style="list-style-type: none"> - Talks - Trainings - Workshops - Sports days - Technical sessions - Active breaks
Resources for implementing physical activity	Spaces for physical activity practice in the company
	Spaces for an active lifestyle in the company
	Spaces for physical activity practice in the corporate environment
	External service resources
	Incentives

1.4.2.3 Feasible and effective training content for managers of SMEs and physical activity specialists (as deliverers)

The proposed content to maximise effectiveness for training in physical activity promotion in SMEs for managers and physical activity specialists is shown in Table 6. Content should approach information on team cohesion, corporate branding, promoting care and well-being, promoting physical activity and on learning about municipal resources

that could be used for implementing physical activity in SMEs. However, this training was agreed that should be delivered at a higher and in-depth level than workers.

Table 7. Training content for managers of SMEs and physical activity specialists (deliverers).

AREA of training	TOPIC
Team cohesion	Team leadership
	Group cohesion
	Communication skills
	Conflict resolution
	Flexibility and organization: - Workload management
Corporate branding	Corporate identity
	Brand communication
	Company culture
	Recognition and prestige
Promote care and well-being	Physical health (ergonomics)
	Mental and emotional health (stress management)
	Work absenteeism (evidence-based)
	Identification of employees' real needs
Promotion of Physical Activity	Benefits of physical activity
	Strategies for promoting PA in the workplace - Adherence to activities - Profitability of initiatives
	Evaluation of PA programs
	Training: - Physical activity - Mental health - Healthy habits - Psychosocial risks
	Self-management and facilitation
	Types of initiatives - Talks - Trainings - Workshops - Sports days - Technical sessions - Active breaks
Resources for implementing physical activity	Spaces for physical activity practice in the company
	Spaces for an active lifestyle in the company
	Spaces for physical activity practice in the corporate environment
	External service resources
	Incentives

1.4.2.4 Format, schedule and delivery of educational and training activities

The format and schedule of delivery for educational and training activities that was agreed as feasible and effective, according to the model Input-Output-Outcome (IOOI) (Bibhu Mishra, 2018) is shown in Table 8. According to this model, the different formats of delivery are shown in the Activities column while in the output column indicators for process evaluation can be seen.

Furthermore, the outcome and impact columns identify the learning outcomes that will be used as indicators to monitor changes in education and training for physical activity promotion in the context of SMEs, approaching effectiveness evaluation.

Table 8. The logic model: input- output – outcome and impact (IOOI) of educational and training activities

Input	Activities	Output/Process evaluation	Outcome /Learning outcomes for effectiveness evaluation	Impact/Learning outcomes for effectiveness evaluation
Designing training	Training for self-employees and SMEs University Expertise Course	Number of sessions delivered Number of participants trained Materials distributed Attendance and participation in activities Feedback from participants	Observable changes in knowledge, attitudes or behaviours: - Increased knowledge about the benefits of physical activity - Greater awareness of the risks of inactivity - Increased motivation to incorporate active habits - Participation in internal initiatives	Sustainable changes and transformation in the organization: - Improvement of the physical and mental well-being of workers - Reduction of sick leave associated with inactivity - Increase in productivity and job satisfaction - Healthier and more attractive company culture to retain talent

1.4.2.5 Effectiveness evaluation of educational and training activities

According to the IOOI and CASP evaluation frameworks (Bibhu Mishra, 2018; Critical Appraisal Skills Programme, 2024), the educational and training activities content, format and learning outcomes will be evaluated as described below. Table 9 summarises the questions that will be used for evaluation as well as the indicators that will be used for process and effectiveness evaluation of the raining awareness activities

- ✓ Objectives:
 - To assess whether entrepreneurs have demonstrated practical knowledge.
 - To measure whether they intend to implement improvements.
 - To detect changes in perceived capacity and commitment.

- ✓ Evaluation Items to assess the objectives for the training (Likert scale 1–5) from / *don't agree at all TO I totally agree*):
 1. I have practical knowledge about promoting physical activity at work.
 2. This training gives me useful tools to apply to my context.
 3. I feel capable of carrying out the proposed changes.
 4. The session was clear, applicable and well-paced.
 5. I intend to implement at least one improvement in the next 3 months.
 6. This training has changed my way of seeing the promotion of physical activity in the workplace.
 7. I would repeat or recommend this training.
- ✓ Open question (optional):
 - What changes do you intend to implement after the training?
- ✓ Other possible questions:
 - “Can you identify a specific training action that you have started to implement?”
 - “How often do you think you will apply the knowledge acquired?”
 - “What level of impact do you expect it to have on your company?”

Table 9. Summary table of the evaluation effectiveness of educational and training activities

Question	IOOI Evaluation	CASP Evaluation
1. I have practical knowledge about promoting physical activity at work.	Outcome: measures acquired knowledge	Results in knowledge and attitudes Knowledge, self-efficacy, change in perception
2. This training gives me useful tools to apply to my context.	Outcome: change in perception of usefulness and applicability	Relevance and applicability usefulness, recommendation
3. I feel capable of carrying out the proposed changes.	Outcome / Impact: improved self-efficacy, a precursor to real action	Results in knowledge and attitudes Knowledge, self-efficacy, change in perception
4. The session was clear, applicable and well-paced.	Output: quality of the raining activity (design and execution)	Clarity and quality of the intervention Clear, applied and timed
5. I intend to implement at least one improvement in the next 3 months.	Outcome: interest with projection Impact: if it translates into real action	Results in future intention or behaviour Implementation intention
6. This training has changed my way of seeing the promotion of physical activity in the workplace.	Outcome: change in attitudes and perceptions	Results in knowledge and attitudes Knowledge, self-efficacy, change in perception
7. I would repeat or recommend this training.	Outcome: Satisfaction and desire for continuity, indicator of perceived value.	Relevance and applicability

		usefulness, recommendation
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1.5 General and final reflection

From the initial co-creation process (D2.1) and the later individual interviews with stakeholders (D3.1), in-depth information has been identified on the content, format of delivery, schedule and learning outcomes for delivering raising-awareness and training activities. This should enhance effectiveness and feasibility of delivery for all target groups involved in SMEs for physical activity promotion.

Awareness and educational activities to promote physical activity in SMEs have been comprehensively developed through a structured process, focused on those factors (motivators, barriers and solutions) that could promote changes in raising awareness and training activities on both managers and workers from SMEs as well as Physical Activity specialist (as deliverers). The process has involved several key steps:

1. **Stakeholder Engagement:** Individual meetings were held with various stakeholders, including the Business Council, Public Health Agency, Sports Council, City Council, and Provincial Council.
2. **Motivations for Promoting Physical Activity:** The motivations identified for promoting physical activity in SMEs included improving the work environment by fostering cohesion, teamwork, and a sense of belonging, developing a positive brand image by promoting employee care and well-being, reducing employee sick leave and associated costs, and increasing productivity by having more motivated employees and retaining talent.
3. **Content of Awareness Messages:** The content of the awareness messages is based on scientific evidence and stakeholder motivations. These messages cover various topics such as workplace safety climate, cohesion and teamwork, sense of belonging, corporate brand, promoting care and well-being, productivity, sick leave and related costs, and talent retention
4. **Format, Schedule, and Delivery of Messages:** The messages could be delivered through various communication materials such as posters, infographics, monthly rotating posters, bi-weekly newsletters, social media, and intranet. Agreement identified that the format and schedule delivery of the messages had to be tailored to SMEs' operating system, organization, communication pathways and

health/productivity needs. Therefore, a specific format could not be designed, delivered or implemented as it would have been specific to only one SME. In the deliverable from work package four (D4.1), a survey will be carried out to more than one SME per country to identify if there is a preferred delivery option scalable to all SMEs.

5. **Evaluation of Effectiveness of the raising-awareness messages and activities:**

The process evaluation of the raising awareness activities and the effectiveness of these awareness-raising activities will be evaluated by measuring recognition, message clarity, attitude change, and the overall impact on employees and the organization according to the IOOC and CASP evaluation frameworks. Specific questions for measuring indicators on awareness-raising outcomes have been developed and will be part of the survey to SMEs from D4.1.

6. **Barriers and Solutions for implementing physical activity promotion:**

The barriers and solutions for implementing physical activity promotion in SMEs included lack of knowledge on how to implement physical activity in the enterprise, lack of awareness of the benefits of practicing physical activity and the risks of physical inactivity for SMEs, using existing resources and spaces in the community (public-private alliances) for implementing physical activity in SME, developing tailored implementation and evaluation plans for promoting PA for each SME.

7. **Content of the training activities:**

The content of the training activities is based on scientific evidence and stakeholder motivations, barriers and solutions before mentioned.

8. **Format, Schedule, and Delivery of Training contents:**

Training contents will be delivered through different communication processes depending on the target group. In-depth training contents for SMEs' managers and physical activity specialists (as deliverers) will be delivered through an expert-based university course. Training for SMEs' workers will be delivered through brief training (1-2 hours) based on the SMEs' workers' motivators and some specific barriers and solutions. A specific format and schedule of training delivery will be designed and planned. In the next work package deliverable (D4.1), a survey will be carried out to more than one SME per each country to explore the feasibility of the training contents and format of delivery.

9. **Evaluation of Effectiveness of the training activities:** The process evaluation of the training activities and the effectiveness of these training activities will be evaluated by measuring recognition, message clarity, attitude change, and the overall impact on employees and the enterprise according to the IOOC and CASP evaluation frameworks. Specific questions for measuring indicators on training learning outcomes have been developed and will be part of the survey to SMEs from D4.1.

2. Implementing steps and processes for scaling-up physical activity initiatives to SMEs: Effectiveness evaluation (D3.2)

2.1 Introduction

The overall aim of [Active4SME](#) is to develop and pilot a plan for implementing physical activity in SMEs of two European countries as a Proof-of-Concept; to be later applied and validated across a wider range of European countries in a future Erasmus+ Sport Call 2026.

To do so, the second specific objective of [Active4SME](#) aims “to support SMEs across EU countries on tailoring the implementation of physical activity initiatives to their contextual needs”. To achieve this objective and according to the four stages of the RE-AIM framework for the successful scalability of physical activity interventions (Planification, Implementation, Follow-up and Maintenance), the current delivery (D3.2) fits within the Implementation stage (WP3).

The aim of D3.2 is (i) to identify effective steps and processes to scale-up the physical activity initiatives of the Toolkit in SMEs, (ii) to share and disseminate the steps and processes for scaling-up physical activity initiatives in one voluntary SMEs and, (iii) to evaluate the impact or effectiveness of the SME-specific steps and processes on different outcomes related to the implementation of physical activity. This will allow us to reach agreement on the most feasible steps and processes for increasing success of scalability of physical activity initiatives in SMEs.

D3.2 contributes towards the sustainability strategy of [Active4SME](#), based on the premise that difficult access and resources for implementing physical activity initiatives in

SMEs across Europe is a main obstacle to initiating physical activity promotion programs in SMEs but also to investing in their sustainability in the long term (EU-OSHA, 2012). For this reason, delivery D3.2 is built on the results identified by deliverable D2.2, which aimed to co-design feasible steps and processes for implementing physical activity initiatives in the context of SMEs.

2.2 Implementation steps and processes: Stakeholders' role description

From deliverable D2.2, several feasible processes and steps (proof-of-concept) for reaching out SMEs and supporting them on the implementation of physical activity initiatives sustainably were identified. Concretely, six processes were agreed as necessary for guaranteeing a feasible implementation of physical activity. Each process showed several steps for implementation as well as the stakeholders' role for each step. All processes and steps were summarized in a flow diagram that can be seen in the following link.

<https://miro.com/app/board/uXjVI5-OEAc=/?focusWidget=3458764627227265224>

Briefly, the six key processes that were agreed to be implemented for a feasible implementation of physical activity in SMEs were the following. **Process 1:** Cross-sectoral alliances through agreements; **Process 2:** Joint coordination; **Process 3:** Incorporate the physical activity within the Occupational Risk Prevention Services that support SMEs; **Process 4:** Crosscutting raising awareness and training within the SME ecosystem (as described in D3.1); **Process 5:** Evaluation, Impact and Feedback; **Process 6:** Cultural and Social Transformation.

Based on the previously described processes and steps for reaching out SMEs to implement physical activity initiatives, individual semi-structured interviews were organized and performed with each stakeholder to further explore the feasibility of implementing such processes and steps. Table 1 shows the dates when the meetings were performed both in Catalonia and Finland. As can be seen, the last meeting was held with SMEs to validate the feasibility and potential impact of implementing such processes and steps on effectively reaching SMEs for delivering physical activity.

Table 10. Stakeholder's meetings calendar

Stakeholder	Date of the meeting	
	Catalonia	Päijät-Häme
Business Council	30/06/2025	26/05/2025
Public Health Agency	01/07/2025	27/05/2025
Sports Council	02/07/2025	28/05/2025
City Council	02/07/2025	02/06/2025
Supramunicipal Council	07/07/2025	17/06/2025
One SME & the Municipal Business Associations	08/09/2025	20/08/2025

The individual interview guide consisted in presenting to the stakeholders the flow diagrams for each of the identified processes and steps. Then, more in-depth information was explored to identify feasible and more concrete steps for implementation. Agreement was reached on that five processes mentioned should be categorized into **Pre-implementation-related steps and processes** and **Implementation-related steps and processes**. Process 6 was discarded as it was perceived to be too general (nation-guide) to directly support SMEs on promoting physical activity. In addition, it was a key process to be performed in Catalonia but not in Finland, where cultural and social transformation for promoting physical activity in SMEs was already happening.

2.3 Pre-Implementation steps and processes: Stakeholders' role description

The processes and steps agreed to be performed in the pre-implementation stage for reaching out SMEs to promote physical activity is summarised in Figure 1. Briefly, it was agreed that SMEs would be approached according to specific municipal geographical areas. Boundaries would be defined so all SMEs that were located within the boundaries would be called to attend to a kick-off workshop for initiating the implementation of physical activity on those specific SMEs. Two types of kick-off workshops would be delivered: one for managers and the other for workers so the content could be tailored. Several stakeholders were agreed to take part such as occupational risk preventive services (to provide occupational data or risks tailored to those specific SMEs), city councils and county sport clubs associations (to provide information on resources and spaces), a physical activity specialists unit (that would play a key role in developing a tailored plan for promoting physical activity for each SME or SMEs group-alike), a university or academic institution to explain the tailored plan that would be carried out for diagnosing and evaluating (process and effectiveness) the implementation of the individualised plan for promoting physical activity for each SME of SMEs group-alike.

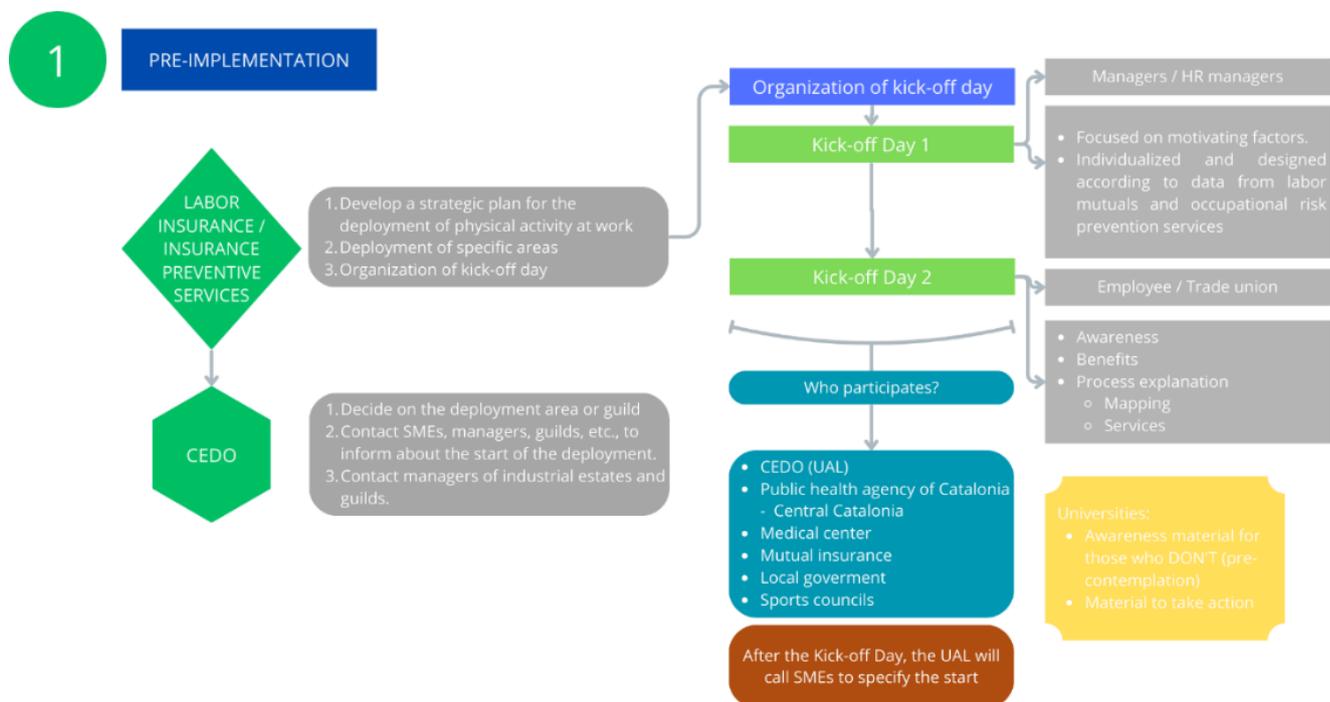


Figure 3: Processes, steps and stakeholders' roles in the pre-implementation stage of reaching out SMEs for physical activity promotion

2.4 Implementation steps and process: Stakeholders' role description

The processes and steps agreed to be performed in the implementation stage for reaching out SMEs to promote physical activity is summarised in Figure 2. Briefly, it was agreed that Municipal/County Business Associations play a key role for reaching out SMEs to promote physical activity in their area of influence. Such Municipal/County Business Associations would have a unit for promoting physical activity on SMEs, where a physical activity specialists unit would be the connector between SMEs, Municipal resources and spaces for Physical Activity, Universities for evaluation. The main role of this unit would be to diagnose and make individual plans for implementation and evaluation of physical activity according to the specific needs of SMEs.



Figure 4: Processes, steps and stakeholders' roles in the implementation stage of reaching out SMEs for physical activity promotion

2.5 Steps and processes for a sustainable funding of physical activity promotion in SMEs: Stakeholders' role description

The processes and steps agreed to be performed for guaranteeing a sustainable funding for physical activity promotion in SMEs is summarised in Figure 3. Briefly, sustainable funding was agreed that should include both public and private. SMEs could co-fund the development and evaluation of the individualised physical activity plan tailored to the specific needs of each SMEs and context. While municipalities would offer public resources and spaces, funding from supra municipality organizations (Diputació de Barcelona) or Government departments (Sports) could support the implementation of physical activity initiatives as well as the key support offered by the physical activity specialists unit located in the Municipal/County Business Associations.

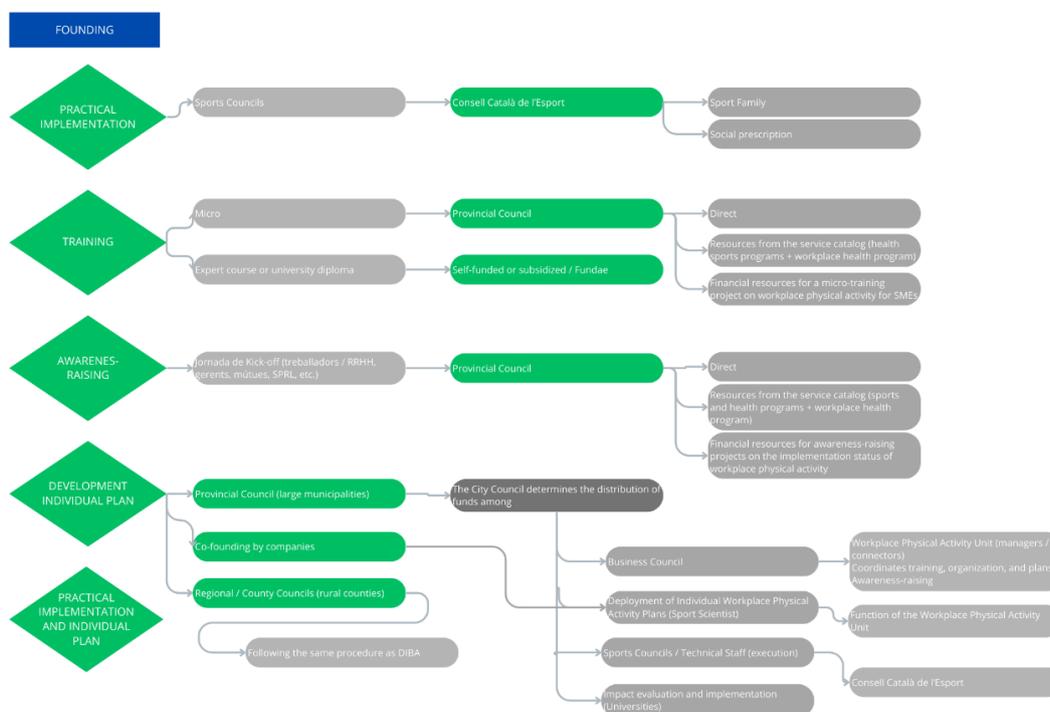


Figure 5: Processes, steps and stakeholders' roles for a sustainable funding to physical activity promotion in SMEs.

2.6 Effectiveness and process evaluation of the implementation for reaching out SMEs to promote physical activity RE-AIM)

According to the RE-AIM evaluation framework (Glasgow et al., 1999; Russell E Glasgow et al., 2019), table 2 summarises what indicators will be evaluated to identify the effectiveness and feasibility of implementing such processes and steps.

Table 11. Summary table of the indicators for the evaluation of effectiveness of steps and processes for physical activity promotion in SMEs

Component	Objective	Practical Indicators / Actions
Reach	Ensure employees and SMEs involved participate	% of employees participating; % of SMEs in the region participating; registration and attendance records
Effectiveness	Evaluate the impact on awareness and motivation of companies and employees in participating in the program	Improvement in awareness of promoting physical activity in the workplace; satisfaction surveys; reduction in sick leave or musculoskeletal disorders (MSDs), individualized plans
Adoption	Identify which companies /municipalities/entities adopt the program	% of companies implementing activities; number of participating municipalities or business council; signed formal commitments
Implementation	Ensure the program is executed according to plan	% of activities carried out as scheduled; session monitoring; quality of service by sports technicians
Maintenance	Ensure long-term sustainability	Number of companies continuing activities after 6–12 months; integration into annual workplace health plans; ongoing follow-up of participants

2.7 General reflection and recommendations

Active4SME was completed in one health industry SMEs (Clínica Bayés) and one Municipal Business Associacion (CEDO) in Catalonia. In Finland, the project was completed in five metal industry SMEs in the Päijät-Häme region (Orima Tuote Oy, Halton Marine Oy, Oilon Oy, Anstar Oy and Peltisepänliike Koskinen Oy). The objective of the project was to develop and pilot an operating model, which can be used to improve employee's health enhancing physical activity (HEPA) in SMEs. The project has paid attention to the individual, community and enterprise levels (Figure 4).

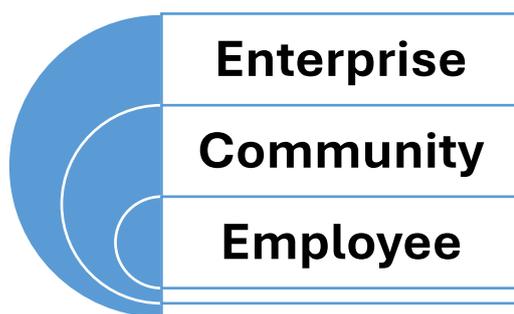


Figure 6. Levels of development in the ACTIVE4SME project

The pilot program was planned together with each of the SMEs following the continuous development process tradition. The development of personnel-orientation was carried out by developing the SME's joint operating culture so that personnel and management will work together towards a shared goal and actively find solutions to identified challenges. Management that enables reform is a prerequisite for an operating culture that promotes physical activity. Furthermore, individuals and work communities must have sufficient facilities, structures and operating models supporting such an operating culture. The project focused on creating mutual understanding and an open atmosphere of interaction.

Active4SME was successful in reaching its target group: SMEs. Motivation, factors affecting to it and its effects to physical activity were discussed. The ways to increase motivation and reaching out were processed together in the interview sessions with the stakeholders.

The objective was to support the employees in SMEs to increase their health enhanced physical activity. An essential horizontal objective of the project was to promote well-being and health. The steps and processes emphasised the promotion of PA by supporting SMEs by creating an ecosystem that should be facilitator of introducing physical activity in SMEs.

Furthermore, during the project the sense of physically active community and relatedness in SMEs emerged. The project also narrowed differences by focusing on the objective assessments and well-being diagnoses. The principles of equality and non-discrimination, and human rights were taken into account and respected. It was understood in the project that discrimination, stigmatisation or other insensitivity to diversity may hamper well-being in the work community.

Persons in charge of the human resources management in the pilot organisations have reported that participation in the co-creation sessions and interviews improved the work

atmosphere, co-operation and interaction, as well as coping with workload and staying at work improved quite much or even more. Furthermore, in their opinion, the project has had a substantial effect on starting internal development processes within the SME, as different parties were jointly involved in processing planning further actions for physical activity initiations.

A traditional top-down development culture was visible in some of the participating SMEs. According to employees, management sets the targets, determines the means required for achieving them and guides the implementation. The project emphasised everyone's expertise in problem identification, development needs and ideas, as well as the utilisation of this potential. Development is often perceived as long and expensive projects, and the significance of small improvements is not fully understood. A culture of continuous improvement should be built systematically.

Finally, development of culture of the physical activity at the SME level is possible by developing the entire organisational culture. The HEPA processes shall be planned and implemented individually based on the needs of each SME using a solid theoretical framework of behaviour changes, and evidence-based methods. The starting points for successful implementation of processes and steps program are the determination and analysis of the SME-specific initial employees' situations and objectives. The steps and processes co-designed and agreed as feasible for being implemented in SMEs from the pilot SMEs that participated in the final interview, will be further tested in a wider range and number of SMEs as part of the fourth deliverable of [Active4SME](#) (D4).

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