



InnovaSPA
Innovative health solutions for thermal SPA regions

Project Partner 7

Action Plan – Fiches

(Final Version)

Norte Region, Portugal

January 2022

Part 0 – Consortium Agreement and the context for the **five** Actions

In what follows we quote all relevant extracts from the Consortium Agreement and refer to the Actions later presented at the relevant places with a number in superscript^{Action.subaction} (e.g. 3, 1.2, 3.1) that refers to each relevant Action.subaction.

Project Abstract:

Context: address the societal challenge of ageing society and to demonstrate that thermalism could be, by introducing innovative cures^{3.1} and care^{3.2} solutions, a sector having a huge potential in making healthcare more efficient^{1.8,1.9,5.2}. Healthy lifestyle^{2.2,5.1} and prevention^{1.7} are supposed to be more and more relevant making wider the target group perspective for the territories^{1.8,4.1,4.2}.

Objective: improve policies aiming at supporting knowledge transfer^{1.3,1.10,2.1,4.1,4.2} and strengthening opportunities for open innovation between the triple helix partners (public authorities, academic institutions and cluster organizations)^{1.4,2.1,3.1,4.1,4.2} in the field of preventative health and thermalism in order to accelerate the launch on the market of innovative solutions^{2.1,4.1,4.2} for developing healthy lifestyle^{2.2,5.1}.

B.2.7 Policy instrument 7 “NORTE 2020 (2014–2020 North Portugal Regional Operational Programme)”*

Main features: the Life and Health Sciences priority is concerned. The goal is to strengthen the articulation between, on the one hand, regional research on tissue engineering, cancer, neuroscience and surgical techniques and, on the other hand, industries and services in the health sector (e.g. pharmaceuticals, medical devices, health services^{1.5,4.1,4.2,4.5,5.2}, health and healthy wellness^{4.1,4.2} tourism, and cosmetics^{2.1}). Improved policies and facilitation of triple-helix cooperation^{1.4,2.1,3.1,4.1,4.2} will promote the creation and development of innovative startups^{2.1,4.1,4.2}, health prevention new products and services^{2.1,2.2,4.1,4.2,5.2}. Encouraging smart investments in health care and thermalism^{3.2,5.1} will also facilitate the improvement in the health industry^{2.1,2.2,4.1,4.2}.

FMUP’s vision for improving the policy: the Faculty of Medicine of the University of Porto (FMUP) would like to have the region Norte more strongly connecting Health and Thermalism; since this is the region with more thermal spas in the country, it could set up a national

* Now officially authorized by the Interreg Europe Joint Secretariat to be exchanged by the coming Regional (follow-up) programme.

example, by improving the governance of the policy instrument^{2,3,5}. The project will contribute to improve this regional policy instrument, providing the opportunity to orientate the management and governance thanks to the exchanges, the benchmarking and identification of good practices^{1.6,2.2,3.2,4.3,4.4,5.1} and measures in the health and thermalism sectors of the partners involved in the cooperation. Secondary improvements will be : i) the study of best practices for implementing more efficient innovation processes^{1.1,1.2,1.8,1.9} in health prevention related to thermalism; ii) the connection of companies and universities for the development and/or commercialization of goods^{2.1,4.1,4.2}, products (including certification^{1.5}), services^{1.8,4.1,4.2}, laboratorial capacity^{2.1,3.1,4.2}, organization, marketing, trademarking, and social innovation (including health^{1.10,5.1}); iii) the implementation and improvement of e-health (eletronic regional government), especially through municipalities^{1.8,4.1,4.2,4.3}.

State of play and needed improvements: FMUP would like to improve the connection between all existing thermal facilities in the Norte (24, including 6 that are inactive)^{1.4}, aligning preventative care^{1.10} and research^{2.1,3.1} with their endogenous resources^{2.2,5.1} (hydrological properties^{1.9,4.2}), also extending the connection to the regional UCSPs (personalized health care units^{1.10}), connected with UNorte and the consortium of the three universities in the North region (Univ Porto + Univ Minho + UTAD)^{2.1,3.1,4.2}. Some thermal baths are currently abandoned in the north of Portugal but the potential is still there to revive^{1.6}. FMUP works on a thermal case-study, on the Comunidade Intermunicipal do Tâmega e Sousa⁴ in NUTS III subregion, because it's the subregion with more thermal facilities in the Norte.

RIS3 Norte: Health is one of the eight priority areas of the Norte RIS3 and mentions explicitly: i) health and well-being: mineral waters^{1.9,2.1,3.1,3.2,4.1,4.2}, modernizing the regional network of thermal facilities^{4.4}; ii) health for national, regional, and local development, reducing inequalities in access: in particular in regional UCSPs (personalized healthcare units) for Preventive Medicine and Health Promotion^{1.10}.

Stakeholder group involvement and interregional learning: FMUP will work together to build a network with the academic/clinical side, the actual service providers, public or private, politicians, and patients^{4.1,4.2}.

PART C – Project description

Issue Addressed: The World Health Organisation defines health as a state of complete physical, mental and social well-being. The partners of the projects are convinced that Managing Authorities⁴, in addition to the management of the programmes and the EU funds, can facilitate cooperation and joint initiatives between enterprises, R&D centres and higher education players in key regional areas of smart specialisation^{2.1,4.1,4.2}. In order to create favourable conditions for innovation partners, the project will improve regional^{4.1,4.2} or national policies^{1.7} which encourage the EU thermal regions, facing similar challenges, to organize themselves as places of open innovation, almost “living labs”^{2.1,2.2,3.1,3.2,5.1}. The cooperation between the EU thermal regions is central to build a common European space.

The project will implement: i) studies and surveys analysing the current state of preventative health and thermalism in the specific region¹ and revealing possibilities for further cooperation^{1,10,2,1,4,1,4,2}; ii) creation of recommendations in the field of preventative health and thermalism targeting public stakeholders^{2,3,4,5}. Interregional cooperation can influence the way policy instruments are managed. New approaches in the field of preventative health and thermalism can be adopted thanks to lessons learnt in other regions^{1,3,1,4,1,6,2,2,3,2,4,1,4,2,4,3,4,4} and changes can be imagined in the management of the innovation measures of the policy instrument (priority given to structural funds policies^{2,3,5}). Managing authorities⁴ can create new measures in their programme^{2,3,5}. Thanks to the expertise of a partner in charge of preventative health and thermalism innovation, the region can create a new team in charge of these fields⁴ and fully integrated in the Smart Specialisation Strategies of the region.

Innovative Character: Thermalism is a natural medicine based on the use of natural thermal waters for therapeutic treatments that shift healthcare management from curative to preventive^{1,10,2}. It concerns primary, secondary and tertiary prevention. The thermal medical programmes are validated scientifically (clinical tests)^{3,1} before launch on the market and this scientific assessment ensures the reproducibility of protocols within thermal spa companies^{2,1,3,1}. They are global health care programmes with thermal treatments and complementary activities (health nutrition, psychological follow-up, adapted physical activity and knowledge on chronic diseases)^{2,2}. This innovative angle in the topic of healthcare is of added-value compared to other health projects financed. We aim to promote processes of entrepreneurial discovery (triple helix), fostering to the role of the final users^{2,1,4,1,4,2}.

Durability of Results: the durability of InnovaSPA achievements will be ensured through the implementation of the concrete policy measures that each partner will identify in its own action plan and their funding in the framework of Structural Funds , in particular ERDF.

Sustainable Development: ehealth solutions will be sought, especially for citizens and patients which promote their personal health management and disease prevention activities^{1,10}. Management of “Big Data” will be approached, as a source of innovation in disease prevention^{1,4,1,8}.



Part I – General information

Project: _____ Innovative health solutions for thermal spa regions (InnovaSPA) PGI05018 _____

Partner organisation: _____ Faculdade de Medicina da universidade do Porto (PP7) _____

Other partner organisations involved (if relevant): _____ PP1, PP2, PP3, PP4, PP5, PP6, PP8 _____

Country: _____ Portugal _____

NUTS2 region: _____ Norte _____

Contact person: _____ Pedro Augusto _____

email address: sciman@med.up.pt

phone number: +351912241175

Part II – Policy context

The Action Plan aims to impact: • Investment for Growth and Jobs programme

European Territorial Cooperation programme

Other regional development policy instrument

Name of the policy instrument addressed: _____

NORTE 2020 (2014–2020 North Portugal Regional Operational Programme)* _____

**In fact, only if the “overbooking budget” has some funding available; otherwise, its replacement instrument for the new programming period (“Norte2030”).*



Part III – Details of the actions envisaged

ACTION 1 – Studies, Surveys & Promotion

1. The background

About 40% of visitors in the Norte region are from abroad, mostly from Spain (13%), but this is far from translating into >20% foreign occupancy at Norte SPAs. With about 20 active SPAs, there are about 200 000 Norte inhabitants per SPA. The General Directorate of Energy & Geology (Environment & Climate Action Ministry) is coordinating the project “Hidrogenoma” for the full microbiologic characterization of all 80 thermal springs in Portugal. The idea is to list the health benefits of each individual spring. None of the SPAs is using SPA thermal water for cooking and/or making meals. Several Norte SPAs do not yet have agreements with patient associations. When they do, most do not use it for self-promotion. Carvalhelhos is unique in the Norte, with three “non-traditional” treatments (“Skin”, “Digestive” and “Circulatory” – only Caldelas offers the same three, plus another four...) so a plan for its reactivation makes sense; otherwise, a plan for another inactive SPA will be attempted. A new National Health Plan (2021-24) is in preparation right now, since the last one (2016-2020) is finishing. The Portaria 337/-C/2018 required a cost-benefit analysis of thermal treatments that has never been done. Each water must be explored with all its therapeutic potential, not only under the current nationally approved 10 treatments but also proposing new ones, especially by comparison with project partner countries. UN Sustainable Development Goal #3 (Good Health and Well-Being); Goal #10 (Reduced Inequalities, e.g., in health).

Lessons learned / best practices from partners are signaled in the relevant subactions like this sentence.

2. (sub)Actions

Action 1.1 “SPAs follow-up”: update and complete information from the Norte SPAs that filled up the August 2019 survey, as concerns the yearly client/patient numbers, if possible, since the first year of current continuous activity and with data split between treatment and healthy wellness.

Action 1.2 “Very low numbers SPAs”: diagnose the situation of SPAs with <150 clients/patients per year, before sketching plans to improve these.

Action 1.3 “Thermal water for cooking”: organize a pilot workshop in order to promote the usage of SPA thermal water for cooking and/or making meals. In addition, promote the idea of “Mineral water menus”.

FR (PP1): Vichy experience with cooking with thermal water

Action 1.4 “Cost-benefit”: prove the cost-benefit of thermal treatments for the State and the client/patient (e.g. via procurement or MSc thesis within the University of Porto).

FR (PP1): cost-benefit study of SPA treatments made in France

Action 1.5 “Certification for SPAs”: i) by ANDAR (patient association), three-level; ii) ISO Medical SPA Services; iii) Nature resort stamp (including publicizing/improvements to achieve it).

FR (PP1): Royatonic model in the connection to nature
LT (PP6): forest barrier / clean air use at Druskininkai.

Action 1.6 “Reactivation case study”: SPA Carvalhelhos (plan) or another inactive Norte SPA, most likely Eirogo, since Moledo, Melgaço, and Marco have recovery plans (and funding) well under way. The funds might come from Turismo Portugal. Eirogo is, currently, the only SPA in the Norte not “on recovery”. Incidentally, it sits only 4km from a train station. This will be our bet.

RO (PP5): Transylvania Regional Balneotouristic Cluster (historic SPA recovery, including University student mentorship)

Action 1.7 “National Health Plan”: Get thermalism inside the new National Health Plan, not only for cure but also for prevention (through committee sitting stakeholders, mainly CCDR-N, but also ARS-Norte and even ANDAR – through the Portuguese Society of Rheumatology).

FR (PP1): the French National Health Plan 2018-2022

Action 1.8 “Rationalized and organized offer”: given the Norte whole population, make a Norte map of “nearest” SPA for all municipalities, extendible to borders with Centro and Spain; also organize SPAs by population. E-health: establish a tool in a relevant website for citizens to look for their most relevant SPA(s).

Action 1.9 “Water map”: Norte SPAs associated in “chemical/microbiological” groups, using data from the Hidrogenoma project.

Action 1.10 “Family Doctors mobilized”: i) 15000 InnovaSPA leaflets will be spread through all Norte Local Health Units; meetings will be organized per “Agrupamento” (with SPA(s)) to promote the “nearest SPA” with Family Doctors; ii) formal training/workshops in “therapeutic hydrology – thermalism”, in the same context.

LV (PP3): Family doctors tours (LV Investment and Development Agency)

3. Players involved

3.1 Key formal project stakeholders

ANDAR: action 1.3 (has contacts of a Michelin Star Chef) + action 1.4 (data; survey) + action 1.5i (certification levels from checklist).

ARS-Norte: action 1.4 (allow free use of data) + action 1.7 (forward the FMUP proposals to the committee) + action 1.10i (ready to help, if required by Health Unit(s)) + action 1.10ii (analysis of training proposals).

CCDR-N: action 1.7 – will also support the FMUP proposals to the committee (they also have a site in it)

3.2 Other organisations

Individual Norte SPAs (public or private).

Three environmental NGOs (action 1.5iii).

National Government (actions 1.7 + 1.9).

4. Timeframe

Jan-Feb 2021 (1.1, 1.2, 1.4, 1.8, 1.9), **Mar 2021** (1.4, 1.7, 1.8, 1.9), **Apr 2021** (1.1, 1.2, 1.4, 1.7), **May-Jun 2021** (1.1, 1.2, 1.3, 1.4, 1.10i), **Jul-Aug 2021** (1.3, 1.4, 1.5i, 1.6), **Sep 2021** (1.3, 1.4, 1.5i, 1.5iii, 1.6), **Oct-Dec 2021** (1.3, 1.5ii, 1.5iii, 1.6, 1.10i), **Jan-Mar 2022** (1.5ii, 1.5iii, 1.6, 1.10i), **Apr-Jun 2022** (1.1, 1.2, 1.3, 1.5ii, 1.5iii, 1.6, 1.10i, 1.10ii), **Jul 2022** (1.5ii, 1.5iii, 1.6, 1.10i, 1.10ii), **Aug-Oct 2022** (1.5ii, 1.6, 1.10i, 1.10ii), **Nov 2022** (1.5ii, 1.6, 1.10i)

5. Costs

Estimated: 8000€

6. Funding sources

6.1 Regional Instrument [Norte 2014-2020 “overbooking budget” or Norte 2030] (0€)

6.2 Other

Organizing SPA (4000€ - 1.3).

Norte SPAs (200€ each – 1.5ii)

7. Indicators of success

7.1 Proving the cost-benefit of thermal treatments (at least: thesis project formally proposed).

7.2 New SPA certification programmes established.

7.3 Thermalism mentioned in the new National Health Plan (at least).

7.4 At least half of the Norte Health Unit Groups (Agrupamentos) with SPAs having meetings for family doctors to promote nearest SPA.

8. Endorsers signatures (formal project stakeholders)

ANDAR representative: [see page 27]

ARS-Norte representative: [see pages 28-29]

ACTION 2 - SPA thermal water and preventative health

1. The background

Nine of the 11 SPAs surveyed do not collaborate at all (with projects) with any portuguese University/Polytechnic; eight of the 11 SPAs have no relevant publications at all; only one SPA has one new product for sale, per year, per staff member; only three are currently developing cosmetics based on thermal water; only one SPA has its own lab. Aquavalor Collaborative Laboratory (cosmetics, geothermia, nutrition) created in 2021. EC Water reuse regulation (2020/741). RIS3 Norte priority area "Health and Life Sciences": health and well-being + cosmetics. UN Sustainable Development Goal #3 (Good Health and Well-Being); Goal #6 (Clean Water and Sanitation).

Lessons learned / best practices from partners are signaled in the relevant subactions like this sentence.

2. (sub)Actions

Action 2.1 "Research, innovation, and development" (RID): i) survey all Universities and Polytechnics in the Norte (contribution to improve thermalism in the Norte, as regards R&I&D – e.g cosmetics, water reuse, bottling); ii) have interviews with each responding SPA in order to directly and specifically collect each one needs and learn about their know-how at the moment; iii) propose to CCDDR-N a call to finance up to three projects in Norte SPAs (triple helix RID), with collaboration with a research institution and a company/SME (creation of a small, PhD-staffed R&I lab; business model for I&D (market-oriented); prototypes).

FR (PP1): Vichy Celestins R&I&D laboratories

LV (PP3): Madara – organic cosmetics

SL (PP8): bottling of "Roi" water, the one with most Mg in the world

Action 2.2 "Full Health Station": propose to CCDDR-N (likely via PROVERE and CIMs) a call to finance the new concept of SPAs: nature, exercise, nutrition, sport, psychology; sleep, no smoke, no alcohol; health, wellbeing, fulfilment; programme development and promotion expenses (SME procurement).

FR (PP1): Vichy Celestins + Vichy Thermes "Education Therapeutique du Patient" + Châtel-Guyon public educational programme

HU (PP2): Aquaticum "full health"

PL (PP4): NGOs for publicizing

3. **Players involved**

3.1 Key formal project stakeholders

CCDR-N: will analyse and study this Action in order for the opening of eventual new financial lines.

CIM-TS: action 2.2

3.2 Other organisations

Individual Norte SPAs (public or private).

Other Norte CIMs

NGOs.

4. **Timeframe**

Jan-Feb 2021 (2.1i, 2.1ii), **Jun-Sep 2021** (2.1iii, 2.2), **Dec 2021** (2.1iii, 2.2), **Jul 2022** (2.1iii, 2.2)

5. **Costs**

Estimated: 3500000€

6. **Funding sources**

6.1 Regional Instrument [Norte 2014-2020 “overbooking budget” or Norte 2030]

85% of [3000000€ (2.1iii) + 250000€ (2.2)]

6.2 Other

Triple helix entities: 15% of [3000000€ (2.1iii) + 250000€ (2.2)]

7. **Indicators of success**

7.1 At least one new RID lab opened and PhD-staffed (eventually shared by more than one SPA).

7.2 At least one prototype for a new cosmetic product/bottling plan/water reuse.

7.3 At least one new “Full Health Station” programme.

8. **Endorsers signatures (formal project stakeholders)**

CCDR-N representative: [see page 30]

CIM-TS representative: [see page 31]

ACTION 3 - Drug-free therapeutic health

1. The background

Norte has consolidated research in the area of thermalism. “Traditional” thermalism has been decreasing for more than a decade. “Rheumatology” + “Respiratory” have larger shares in Portugal than the European average (60% + 30% vs. 51% + 14%). Among the Norte SPAs, each treatment is available in 95% and 85% of them, respectively. On the other hand, the Norte is not covering all 10 official national thermal treatments, since “Blood” and “Neurourology” are missing. In addition, 70% of the Norte SPAs have only up to three treatments available (only 30% of the full range). Must aim at a reduction in expenditure on complementary diagnostic and therapeutic means and medicines. Each water must be explored with all its therapeutic potential, not only under the current nationally approved 10 treatments but also proposing new ones, especially by comparison with project partner countries. For example, “Postoperative” is 3rd in Europe and not even approved in Portugal! “Rehabilitation” is already officially approved in some countries (e.g. LT). E.g. Caldelas is the only Norte SPA offering “Gynecological” while Chaves (2) and Caldelas are the only 2+1 offering “Nervous System”. The Dec-Lei nº142 (2004) has the rules for Thermal activities in Portugal, naming the technical commission (seven people) that proposes the approval of new therapeutics with mineral thermal waters (Artº29º-30º). The General Directorate of Energy & Geology (Environment & Climate Action Ministry) is coordinating the project “Hidrogenoma” for the full microbiologic characterization of all 80 thermal springs in Portugal. The idea is to list the health benefits of each individual spring. Aquavalor Collaborative Laboratory (service for such clinical trials). People prefer recovery at home (vs. hospital). However, some people are old and live alone (harder). Rehabilitation: the only keyword related to thermalism not yet widespread in portuguese SPAs. Most surveyed Norte SPAs (Aug 19) have no Physiotherapists. Post-CODIV19: lung, cardiovascular, mental. Why only use mineral water for treatment at SPAs? We have many examples in our project partners of other approaches, even if not formal treatments: mud, sapropel, herbs, local natural resources, etc. UN Sustainable Development Goal #3 (Good Health and Well-Being); Goal #10 (Reduced Inequalities, e.g., in health).

Lessons learned / best practices from partners are signaled in the relevant subactions like this sentence.

2. (sub)Actions

Action 3.1 “Research and clinical use of thermal mineral water”: i) the August 2019 survey made to the Norte SPAs found out that seven reported “other” treatments, not on the extensive list given. Interview each SPA in order to find out what are these; ii) propose to CCDR-N a call to finance Research, Clinical Studies, and Clinical trials for new treatments at Norte SPAs: a) six projects (*early stage – in vitro*): research on mineral waters for demonstration of new therapeutic effects; b) five projects (*intermediate stage – in vivo*): clinical use of thermal water (animal models); c) four projects (*advanced stage – clinical trials*): clinical use of thermal water.

FR (PP1): list of publications for several new treatments and list of treatments not approved in Portugal: “Psychosomatic”, “Bucco-lingual”, and “Child development”; AFRETh thermal research association; La Bourboule “fractional cures” young people clinical trial at six SPAs, 65% state financed

HU (PP2): Hajduszoboszlo has 40 treatments; National Health Insurance Fund approved therapies (e.g. Hévíz lakebath; spabath; mudpack; weight bath; carbonated bath; carbon dioxide medical gas bath (mofetta))

RO (PP5): mud treatments in Ocna Sibiului

LT (PP6): list of publications for several new treatments

Action 3.2 “Rehabilitation” i) inspect info on two surveyed SPAs (connections with Health Units) and status on physiotherapists and rehabilitation for all “pilot” SPAs (three already reported having them, as well as physiotherapists); ii) propose to CCDR-N a call (likely via ARS-Norte) to finance the rehabilitation of people at SPAs (pilot projects), physical and psychological/psychiatric. Very important to update with COVID19, namely for sequelae recovery (e.g. Nature, Vol. 594 (10 June 2021), p.259)

LV (PP3): Jurmala/Jaunkameri SPAs rehabilitation programmes + National rehabilitation centre “Vaivari” (e.g. mud and bath profilactic treatments); Riga Stradins University Faculty of Rehabilitation

LT (PP6): the State of Lithuania funding of (physical) rehabilitation at SPAs.

3. Players involved

3.1 Key formal project stakeholders

CCDR-N: will analyse and study this Action in order for the opening of eventual new financial lines.

ARS-Norte: actions 3.1ii (advice on the document to be prepared) + 3.2ii (support in the access to information, namely rules and laws)

ANDAR: actions 3.1ii + 3.2ii

3.2 Other organisations

Individual Norte SPAs (public or private).

Relevant Local Health Units.

4. Timeframe

Jan-Feb 2021 (3.1i, 3.2i), **Jun-Sep 2021** (3.1ii, 3.2ii), **Dec 2021** (3.1ii, 3.2ii), **Jul 2022** (3.1ii, 3.2ii)

5. Costs

Estimated: 5000000€

6. Funding sources

6.1 Regional Instrument [Norte 2014-2020 “overbooking budget” or Norte 2030]
85% of [4000000€ (3.1ii) + 1000000 (3.2ii)]

6.2 Other

Triple helix entities: 15% of [4000000€ (3.1ii) + 1000000€ (3.2ii)]

7. Indicators of success

7.1 Norte fully covered with all ten official treatments (available).

7.2 Most Norte SPAs with, at least, five different treatments available.

7.3 At least one Rehabilitation pilot conducted.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative: [see page 30]

ANDAR representative: [see page 27]

ARS-Norte representative: [see pages 28-29]

ACTION 4 - CIM Tâmega e Sousa (pilot subregion): Thermalism Cluster(s) Creation

1. The background

Thermalism might be crucial for the economic development of inner country regions (low density territories), which is a main objective of the Government (Programa Nacional para a Coesão Territorial). Many Norte SPAs have historic buildings that are valuable on their own. Some of these used to have a hotel that is no longer operational and, so, the patients must rest off-site. Only two of surveyed SPAs reuse waste thermal water for heating. Only eight SPAs in Portugal have concessions for “thermalism & geothermic”. Half of the Norte SPAs want a formal Health Thermal Cluster in the Norte (most want it outside Health Cluster Portugal). There already exists a subregional thermalism cluster, Aquavalor, in NUTS3 “Alto Tâmega”. SPAs should unite and spread the same message together: e.g. healthy wellness in SPAs is better than healthy wellness in SPA hotels due to the thermal water, unique on each SPA. Most SPAs are ready to offer about 1€ per client/patient for research (August 2019 survey). Several Norte SPAs do not yet have agreements with patient associations. UN Sustainable Development Goal #7 (Affordable and Clean Energy); Goal #9 (Industries, Innovation, Infrastructure, e.g. energy efficiency).

Lessons learned / best practices from partners are signaled in the relevant subactions like this sentence.

2. (sub)Actions

Action 4.1 “Creation of municipal thermal clusters”: focusing on the SPAs Amarante, Caldas de Aregos (Resende), Termas de S.Vicente (Penafiel), Marco de Canavezes and INATEL Entre-os-Rios (Penafiel) – which, although administrated from Lisbon, sits in the region – identify synergies that can be created for quadruple helix municipal thermal clusters: municipality, SPA(s), Local Health Unit(s), professional school(s), hotel(s), restaurant(s), shop(s), service(s), SMEs, sport facilities, patient associations, etc.

FR (PP1): InnovaTherm + Thermhotel (clusters)

HU (PP2): Thermal Health Industrial Cluster

RO (PP5): Transylvania Regional Balneotouristic Cluster

Action 4.2 “Creation of an inter-municipal thermal cluster”: a cluster of clusters, so that all municipalities in CIM-TS are served by this NUTS3 SPAs, whether they have one on their municipality or not; this should add value by getting into the cluster intermunicipal SMEs, research and higher education institutions and, even, one (or more) of the Norte Universities and/or Polytechniques. The objective is to reach thermal I&D in the NUTS3, especially with the utilization of local laboratory facilities for managing the thermal water(s), as well as for new product development.

FR (PP1): InnovaTherm + Thermhotel (clusters)

HU (PP2): Thermal Health Industrial Cluster

RO (PP5): Transylvania Regional Balneotouristic Cluster

Action 4.3 “City/municipality card”: in connection with the municipality SPA(s), this should allow discounts for residents; study the possibility of a CIM-TS card.

LT (PP6): Birstonas city card.

Action 4.4 “Modernization of historic SPA facilities”: propose to CCDR-N a call (likely via PROVERE) that will also finance attached accommodation, associating healthy wellness to treatments and including disabled access to all areas; eco-friendly solutions such as better building thermal isolation, solar powered electricity, natural mineral water re(use) such as for heating (at Aregos – 62°C).

FR (PP1): Vichy Celestins modernization

Action 4.5 “All-weather covered walkways”: propose to CCDR-N a call (likely via PROVERE) to finance them from the train station and/or from the agreed nearby accommodation, when at walkable distances (<1km); the terms of the agreement (hotel) must be long term (e.g. five years).

HU (PP2): SPA-hotel link concept of Aquaticum

3. Players involved

3.1 Key formal project stakeholders

CCDR-N: will analyse and study this Action in order for the opening of eventual new financial lines.

CIM-TS: as subregional authority, will co-coordinate the implementation of the five subactions in its territory (NUTS3 Tâmega e Sousa).

ARS-Norte: action 4.1 (will not oppose the creation of such clusters, if inquired by the relevant Health Units).

3.2 Other organisations

Individual Norte SPAs (public or private).

4. Timeframe

Mar-Sep 2021 (4.1), **Jun-Sep 2021** (4.2, 4.4, 4.5), **Oct-Nov 2021** (4.2), **Dec 2021** (4.2, 4.4, 4.5), **Jan-Mar 2022** (4.3), **Jul 2022** (4.4, 4.5)

5. Costs

Estimated: 9100000€

6. Funding sources

6.1 Regional Instrument [Norte 2014-2020 “overbooking budget” or Norte 2030]

85% of [8000000€ (4.4) + 1000000 (4.5)]

6.2 Other

CIM-TS: 100000€ (4.1-4.3)

Triple helix entities: 15% of [8000000€ (4.4) + 1000000€ (4.5)]

7. Indicators of success

7.1 At least two (inter)municipal clusters created.

7.2 At least one historical Norte SPA building modernized.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative: [see page 30]

CIM-TS representative: [see page 32]

ARS-Norte representative: [see pages 28-29]



ACTION 5 - Healthy eco-innovation

1. The background

Access to health establishments (SPAs, Local Units, Hospitals) is not “green” being mostly done by car or bus. And, yet, several Norte SPAs (as well as Local Units & Hospitals) have the train station close enough to walk(!) or bring clients by transfer. Many SPAs have an associated/agreed hotel less than 500m away (how do the clients transfer?). EUROPARC (Federation of Protected Areas in Europe). UN Sustainable Development Goal #3 (Good Health and Well-Being). UN Sustainable Development Goal #7 (Affordable and Clean Energy); Goal #9 (Industries, Innovation, Infrastructure, e.g. energy efficiency).

Lessons learned / best practices from partners are signaled in the relevant subactions like this sentence.

2. (sub)Actions

Action 5.1 “Eco-health”: Natural Park nature walks and forest “barrier” for clean air – SPA connection: propose to CCDR-N a call (likely via PROVERE and CIMs) to finance healthy habits to be developed at SPAs via the exploration of a nearby Natural Park (most Norte SPAs have one <30 min drive) for ecological activities, forest “barrier”, clean air (e.g. Forest Therapy; Nordic Walking, cycling routes, kayaking), “forest” gastronomy (e.g. own honey production).

FR (PP1): Royatonic model in the connection to nature

LV (PP3): 3km barefoot walk (Nature Conservation Agency)

LT (PP6): forest barrier / clean air use at Druskininkai

PL (PP4): Nordic Walks@SPAs; Green Velo cycling route; honey production at Warmia Hot Springs, Lidzbark Warminski initiatives

SL (PP8): cycling routes from Rogaska Slatina (e.g. to Olimia Terme; KKR 38; about 30km)

Action 5.2 “Green access to/within SPAs, Local Health Units, Hospitals”: i) enquire “pilot” SPAs on access by train and transfers, including accommodation (for “green” improvements); ii) make agreements with Comboios de Portugal (CP) for “packs”; this is a must for SPAs which have the train station at a walking distance (<2km); iii) propose to CCDR-N a call (likely via ARS-Norte) to finance electric transfer vehicles (buses or boats!) for service to all nearby health establishments (SPAs, Local Health Units, Hospitals) from the train station (<20km away).

PL (PP4): Green Velo cycling route; Lidzbark Warminski initiatives

SL (PP8): cycling routes from Rogaska Slatina (e.g. to Olimia Terme; KKR 38; about 30km)

3. Players involved

3.1 Key formal project stakeholders

CCDR-N: will analyse and study this Action in order for the opening of eventual new financial lines.

CIM-TS: action 5.2iii.

ARS-Norte: action 5.2iii.

3.2 Other organisations

Individual Norte SPAs (public or private).

National Institute for the Conservation of Nature and Forests.

Comboios de Portugal (CP).

Local Health Units & Hospitals.

(Inter)municipal transport authorities.

4. Timeframe

Jan-Feb 2021 (5.2i), **Jun-Sep 2021** (5.1, 5.2ii, 5.2iii), **Oct-Nov 2021** (5.2ii), **Dec 2021** (5.1, 5.2ii, 5.2iii), **Jan-May 2022** (5.2ii), **Jul 2022** (5.1, 5.2iii)

5. Costs

Estimate: 22000000€

6. Funding sources

6.1 Regional Instrument [Norte 2014-2020 “overbooking budget” or Norte 2030]

85% of [2000000€ (5.1) + 20000000€ (5.2iii)]

6.2 Other

Triple helix entities: 15% of [2000000€ (5.1) + 20000000€ (5.2iii)]

7. Indicators of success

7.1 At least two nature & health programmes implemented at Norte SPAs.

7.2 At least half of the SPAs within 10km of a train station with new ecological solutions for access.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative: [see page 30]

CIM-TS representative: [see page 33]

ARS-Norte representative: [see pages 28-29]

Part IV – Monitorization & Chronogram

Every three weeks, meetings with all relevant endorsers (of Actions that were to be executed in the previous 3-week period) will take place. If deemed necessary, on-site follow-up visits will happen, to make sure that the Actions are following their due course or to propose corrective measures to guarantee that will happen.

In addition, the full Stakeholder Group will meet twice (possibly in December 2021 and July 2022), to analyse if the Action Plan is following its due course.

The Chronogram of all actions is presented in the next page.

[illegible]

Part V – Endorsing stakeholders signatures

ANDAR

Date: 2021-08-02

Signature: 

President - A.N.D.A.R.
General Assembly

Stamp of the organisation (if available):



European Union
European Regional
Development Fund

InnovaSPA
Interreg Europe

U. PORTO
FACULDADE DE MEDICINA
UNIVERSIDADE DO PORTO

ARS-Norte



SNS
SERVIÇO NACIONAL
DE SAÚDE



ARS NORTE
Administração Regional
de Saúde do Norte, I.P.



COMUNICAÇÃO



INFORMAÇÃO



PARECER

DATA: 2021-08-02

REFERÊNCIA: DEP/2021/93

PARA: DEP - DEPARTAMENTO ESTUDOS E PLANEAMENTO - Fernando José Martins Tavares

DE: DEP - DEPARTAMENTO ESTUDOS E PLANEAMENTO

ASSUNTO ...: InnovaSPA

Contexto

Hoje, por todo o mundo, mas com especial incidência nos países desenvolvidos, as pessoas vivem mais anos, mas a qualidade de saúde dos anos "acrescentados" não teve sempre grandes melhorias, especialmente após os 65 anos. Sendo a esperança média de vida em Portugal de 81 anos[1], há muito a fazer pelos últimos dezasseis. A Medicina (especialmente preventiva, onde se inclui o Bem-Estar) tem de melhorar os seus serviços substancialmente, para que uma nova geração de pessoas termine os seus dias com muito melhor qualidade de vida do que as gerações anteriores.

Essa prevenção pode vir pelo termalismo, definido como a utilização de águas minerais naturais e outros fatores e técnicas complementares terapêuticos para a cura e prevenção de doenças, para a reabilitação e promoção da Saúde e Bem-estar. O termalismo, em combinação com uma vida livre de tabaco, recheada de exercício e seguindo uma adequada nutrição pode-se constituir em programas "SPA Full Health" que implementam estas práticas de forma integrada [2]. Além disso, claro, os tratamentos termais podem contribuir para o tratamento e prevenção de doenças crónicas (e outras), para além de reduzirem o absentismo no trabalho, aumentarem a produtividade e melhorarem a qualidade de vida.

O Projeto

Classificado em 9º lugar entre os 234 projetos aprovados, o projeto InnovaSPA (<https://www.interregeurope.eu/innovaspa/>) é um projeto financiado pelo Programa Interreg Europe (de 1 de junho de 2018 a 30 de novembro de 2022) e que tem por objetivo principal melhorar as políticas regionais de apoio à transferência de conhecimento, fortalecendo oportunidades de inovação aberta entre parceiros de helioe tripla (autoridades públicas, instituições académicas e organizações em cluster), na área da prevenção em saúde pelo termalismo, de forma a acelerar o lançamento no mercado de soluções inovadoras para o desenvolvimento de estilos de vida saudável. Os cuidados de saúde podem, assim, tornar-se mais eficientes. De forma a criar as condições favoráveis aos parceiros inovadores, o projeto pretende, não só, melhorar as políticas regionais, mas também as nacionais, de forma a encorajar as regiões europeias termais perante os mesmos desafios a organizarem-se como locais de inovação aberta, quase como "laboratórios vivos".

A Equipa

O projeto é liderado pela Therauvergne (FR) com a participação de mais sete países europeus (HU, SL, LT, LV, RO, PL, PT), cada um representado por uma região termal. No caso de Portugal está presente a Região Norte (onde se localiza metade dos estabelecimentos termais de Portugal), representada pela Faculdade de Medicina da Universidade do Porto (FMUP).

Concordo com o proposto. Proceda-se em conformidade.
CC a Dra. Maria Castro, Dr. Ponciano Oliveira, Enferm. Paula Duarte
2021-08-25

Carlos Nunes
Presidente do CD

Face ao exposto, e atento à condição de parceiro no projeto Innova SPA, concorda-se com a proposta de sinalizar a anuência da ARSN com as ações propostas, já que estas não acarretam custos para a organização, antes oportunidade para melhorar a acessibilidade às unidades de saúde e complementarmente aos estabelecimentos termais, quando houver indicação para tal. Alargam o leque de serviços de reabilitação e potenciam a melhoria de indicadores que olham para a saúde de forma positiva (bem estar físico, mental e social).
A Consideração Superior
2021-08-03

Fernando José Martins Tavares
Diretor do DEP

Rua Santa Catarina, 1288
4000-447 PORTO

Tel: 220411000
Fax: 220041005

arsn@arsnorte.mln-saude.pt
www.arsnorte.mln-saude.pt



Funcionamento

O projeto tem duas fases, sendo a primeira de aprendizagem (boas práticas e exemplos são partilhados entre todos os parceiros, concretizando-se em visitas de estudo a cada região termal) e a segunda de execução de um Plano de Ação por região, apoiado nessas aprendizagens.

Proposta de Plano de Ação

A Proposta de Plano de Ação da FMUP para o Norte de Portugal, que se anexa, compreende cinco ações principais, divididas em várias subações.

De forma resumida junto as ações que contam com a participação da ARS N:

Ação 1 - Estudos, pesquisa e promoção:

1.4 - Estudo custo benefício dos tratamentos termais (está efetuado pela ACSS-falta a divulgação). [assim que o termalismo for formalmente considerado como uma mais-valia, colocar no site da ARS-Norte a "ferramenta" de "terma mais próxima" (por conselho de residência e tratamento)] e [ainda, considerar uma proposta de distribuição das termas do Norte por população]

1.7 - Referir o termalismo no PNS, na componente curativa e preventiva.

1.10 i - Distribuição de 15.000 panfletos InnovaSPA pelas UF (em 10 ações de dia inteiro - sábado, incluindo componente prática, a realizar nos 10 agrupamentos com termas).

1.10. ii - Promoção do SPA mais próximo das US, com visitas e "workshops" relacionados com hidrologia / termalismo.

1.10iii - Formação na área do termalismo para os MF.

Ação 3 - Terapêuticas médicas "drug free":

3.1 ii- Aconselhamento na preparação de documento que permita à CCDR-N propor uma "call", para financiar pesquisa e ou ensaios clínicos para novos tratamentos nos âmbitos dos estabelecimentos termais.

3.2 ii - Aconselhamento e disponibilização de informação que permita à CCDR-N, propor uma "call", para financiar um projeto piloto destinado à área de reabilitação - física, psicológico /psiquiátrica (nomeadamente nos casos pós-COVID).

Ação 4 - CIM Tamega e Sousa / Criação de Clusters de termalismo:

4.1 - Criação de clusters de termalismo focados nos estabelecimentos termais de Amarante, Caldas de Aregos, Termas de S. Vicente, Marco de Canavezes e INATEL Entre os Rios, que permitam identificar sinergias que propiciem a criação de uma quadri-hélix entre estas entidades e as unidades de saúde, escolas profissionais, hotéis, restaurantes, lojas, serviços, ginásios, associações de doentes, ...

A ARS N, não se oporá à criação destes clusters, se questionada por alguma Unidade de Saúde / ACES.

Ação 5 - Eco inovação na Saúde:

5.2iii - "Acesso verde" a Unidade Termais / Unidades de Saúde / Hospitais, propor a CCDR-N, a elaboração de uma "call" para financiar a aquisição de veículos elétricos, que circularão entre as unidades referidas e a estação de comboios.



European Union
European Regional
Development Fund



CCDR-N

Assunto **RE: URGENTE: versao Final do Plano de Acao Norte (projeto InnovaSPA)**

Remetente Raquel Meira <raquel.meira@ccdr-n.pt>

Para Pedro Augusto <sciman@med.up.pt>

Cc Susana.Alves@cimtamegaesousa.pt
<Susana.Alves@cimtamegaesousa.pt>,
Mariana.Magalhaes@cimtamegaesousa.pt
<Mariana.Magalhaes@cimtamegaesousa.pt>,
Joao.Araujo@cimtamegaesousa.pt
<Joao.Araujo@cimtamegaesousa.pt>,
jcsreis50@gmail.com <jcsreis50@gmail.com>,
joaoreis@arsnorte.min-saude.pt
<joaoreis@arsnorte.min-saude.pt>,
geral@cimtamegaesousa.pt
<geral@cimtamegaesousa.pt>,
arsisete@andar-reuma.pt <arsisete@andar-reuma.pt>,
andar@andar-reuma.pt <andar@andar-reuma.pt>,
adrianoneto47@hotmail.com
<adrianoneto47@hotmail.com>,
avilar1950@gmail.com <avilar1950@gmail.com> 2
[mais...](#)

Data 2021-08-02 16:09



Caro Doutor Pedro Augusto,

Serve o presente para informar o apoio da CCDR-N à proposta de Plano de Ação do InnovaSPA colocado à consideração no âmbito da representação desta entidade no Grupo de Stakeholders, e tendo em conta a reunião com o Presidente Doutor António M. Cunha no passado dia 26 de maio.

De facto, ficou sempre claro o apoio desta CCDR na implementação deste projeto do INTERREG EUROPA através do papel desempenhado como membro do Grupo de Stakeholders. No futuro Plano de Ação o papel da CCDR-N consiste na análise de propostas quanto à viabilidade de poderem-se identificar linhas de financiamento comunitário que enquadrassem algumas das ações propostas, ainda acresce o papel da CCDR-N de estudar e analisar a possibilidade de financiamento no âmbito do NORTE 2030.

Importa somente a este propósito acrescentar que este apoio não representa nenhum compromisso financeiro da CCDR-N para este projeto.

Com os melhores cumprimentos,

Raquel Meira



European Union
European Regional
Development Fund



CIM-TS



European Union
European Regional
Development Fund



3. Players involved

3.1 Key formal project stakeholders

CCDR-N: will analyse and study this Action in order for the opening of eventual new financial lines.

CIM-TS: action 2.2

3.2 Other organisations

Individual Norte SPAs (public or private).

Other Norte CIMs

NGOs.

4. Timeframe

Jan-Feb 2021 (2.1i, 2.1ii), Jun-Sep 2021 (2.1iii, 2.2), Dec 2021 (2.1ii, 2.2), Jul 2022 (2.1iii, 2.2)

5. Costs

Estimated: 3500000€

6. Funding sources

6.1 Regional Instrument

85% of [3000000€ (2.1iii) + 250000€ (2.2)]

6.2 Other

Triple helix entities: 15% of [3000000€ (2.1iii) + 250000€ (2.2)]

7. Indicators of success

7.1 At least one new RID lab opened and PhD-staffed (eventually shared by more than one SPA).

7.2 At least one prototype for a new cosmetic product/bottling plan/water reuse.

7.3 At least one new "Full Health Station" programme.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative:

CIM-TS representative:



6. Funding sources

6.1 Regional Instrument

85% of [8000000€ (4.4) + 1000000 (4.5)]

6.2 Other

CIM-TS: 1000000€ (4.1-4.3)

Triple helix entities: 15% of [8000000€ (4.4) + 1000000€ (4.5)]

7. Indicators of success

7.1 At least two (inter)municipal clusters created.

7.2 At least one historical Norte SPA building modernized.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative:

CIM-TS representative:

ARS-Norte representative:



3.2 Other organisations

Individual Norte SPAs (public or private).

National Institute for the Conservation of Nature and Forests.

Comboios de Portugal (CP).

Local Health Units & Hospitals.

(Inter)municipal transport authorities.

4. Timeframe

Jan-Feb 2021 (5.2i), Jun-Sep 2021 (5.1, 5.2ii, 5.2iii), Oct-Nov 2021 (5.2ii), Dec 2021 (5.1, 5.2ii, 5.2iii), Jan-May 2022 (5.2ii), Jul 2022 (5.1, 5.2iii)

5. Costs

Estimate: 2200000€

6. Funding sources

6.1 Regional Instrument

85% of [2000000€ (5.1) + 2000000€ (5.2ii)]

6.2 Other

Triple helix entities: 15% of [2000000€ (5.1) + 2000000€ (5.2ii)]

7. Indicators of success

7.1 At least two nature & health programmes implemented at Norte SPAs.

7.2 At least half of the SPAs within 10km of a train station with new ecological solutions for access.

8. Endorsers signatures (formal project stakeholders)

CCDR-N representative:

CIM-TS representative:

ARS-Norte representative:



Date: _____

Signature (FMUP Director):

Assinado com Assinatura Digital Qualificada por:
ALTAMIRO MANUEL RODRIGUES DA COSTA
PEREIRA
Diretor
Faculdade de Medicina da Universidade do
Porto
Faculdade de Medicina da Universidade do
Porto
Data: 06-09-2021 14:45:19

FACULDADE DE MEDICINA
DA
UNIVERSIDADE DO PORTO
Al. Prof. Hernâni Monteiro
4200 PORTO

Stamp of the organisation: