



Interreg Europe



European Union
European Regional
Development Fund



TRIS Peer Review Report

Introduction

1.0 What is a peer review visit?

Peer review visits are intended to be a practical and effective tool to foster learning between organisations. In the context of the TRIS project, the objective of a peer review visit is to enable organisations to improve their working knowledge of industrial symbiosis by learning from each other. The visits are intended to benefit all participants through an open exchange of ideas, knowledge, and sound practices. The host organisation should expect to gain as much from the experience as the visitors, if not more.

1.1 Steps to organise a peer review visit

- Make contact between the host and visiting organisation
- Identify potential areas for support or sharing
- The two organisations should identify which areas they want to learn about from each other. Possible areas include: leadership/management; strategic planning; project examples (good practices); funding/ governance arrangements
- Identify responsibilities in planning and carrying out a review visit

1.2 Organising the visit

During this step it is very important that both organisations know what they are responsible for. The following is a starting point

1.2.i Host organisation

- Establish availability and identify tentative dates for the site visit. If possible, the visit should happen at a time when the visitors can observe your activities taking place.
- Determine who will participate in the review visit. Designate which staff will be responsible for receiving the visitors and taking them around.
- Make necessary logistical arrangements, e.g. set up meetings, arrange local transport, meals, etc.
- Inform key staff of the upcoming visit.
- Prepare and share an agenda for the visit. Don't forget to estimate and include travel times and distances between locations. Also consider including a wrap-up or closing activity.
- Prepare any other programme materials and share key documents and background information about your organisation with the visitors at least 2 weeks prior to their coming.
- Try to identify good ideas from your organisation that you think might be helpful to the visitors.
- Identify the potential necessity of a translator – this will be dependent on the host organisation (language barriers may be more significant in some host organisations than others). Host organisation to assess the need for translation.

Text adapted from <http://www.tools4dev.org/resources/how-to-organise-exchange-visits-among-local-organisations>





1.2.ii Visiting organisation(s)

- Determine who will participate in the review visit. People should agree to participate in the team only if they have a genuine desire to both offer and receive new ideas and to report back to others.
 - Agree locally the number of visitors and how many people can come from the same company
 - Review and give feedback on the proposed agenda.
 - Notify the hosting organisation (with enough advance notice) of the names, arrival dates/times and other relevant information about arriving participants.
 - Review the materials sent by the hosting organisation.
 - Prepare to present/discuss your own organisation and programmes, as well as your successes and challenges.
 - When you return home, share relevant information, approaches, skills, recommendations and ideas with those who did not participate.
- Who will participate? Agree the organisations that should be involved: do we want people from the same sector? Should we weight some sectors more than others? Should it comprise a mix of stakeholders?
 - The programme duration/length
 - Financial responsibilities – which organisation will pay for what?
 - Who will be responsible for follow-up and reporting?
- Maintain an open, supportive, friendly environment for discussions about programmes and organisational strengths and challenges, as well as past successes and lessons learnt.
 - Provide complete, accurate and meaningful information and feedback to each other during the visit.
 - Do not act in any way that can negatively affect the reputation of the other organisation during the visit.
 - Monitor participants' reactions and comments during the visit. Notify each other of any issues or problems that arise. Communicate and cooperate fully and openly with each other in relation to the solution.
 - Provide participants with a formal opportunity to comment on the programme immediately following participation.

1.2.iii All organisations

- Based on the needs of both organisations, identify focus areas for activities/discussion during the visit.
- Develop clear expectations about the visit, including:
 - Issues to be discussed
 - Type of activities to be carried out – meetings, focus group discussions, observation, site visits, etc.



1.3 Follow-up

When the visitors return home, it is time to reflect further on what each organisation has learned from the exchange experience. It is important to make an effort to share the information with your colleagues after the visit. Discuss what ideas have come out of the review visit and how you might go forward to adapt or enhance your organisation's programmes or systems.

1.4 What makes a peer review visit successful?

- Clear expectations for both the host and visiting organisations developed prior to the visit.
- A well-planned and well-implemented programme, including enough time to discuss what you have seen at the end of the day.
- A friendly and open atmosphere during the visit.
- People from both organisations actively taking part in the activities and discussions
- Not just sharing information, but a focus on trying to learn and identify lessons and ideas to use and adapt after the review visit
- Effective follow-up and reporting.

1.5 Prepare a report to donors on the peer review visit

Reporting is an important way to communicate with key stakeholders about the purpose and outcomes of your peer review visit. The following key questions should be answered in the report in order to share what both organisations have learned during the visit. Include any additional information, insights or ideas of interest to you in the report. Length of these reports should not exceed five pages.

Peer Review Visit to Emilia Romagna

Background information

1. Visit purpose and programme

The peer review (PR) visit purpose was to initiate a dialogue with the visiting delegation on two main topics which play a role in stimulating industrial symbiosis practices: waste management and innovation in terms of policy (starting from the innovation policy of Emilia-Romagna) and examples of innovative R&D projects (e.g. some of those developed by the High Technology Network of Emilia-Romagna, regional network of applied research laboratories).

The key planned activities were presentations, discussions and visit to a significant plant in plastic waste separation to reuse the material. It was decided to allocate a time slot on good practices in order to share them with the participants.

Here a summary of the presented activities which were covered during the two days program between March 29 and March 30:

1) Emilia-Romagna waste management policy

The regional Waste Management Plan issued in 2015 and the Regional Law on Circular Economy are the tools with which the Emilia-Romagna region aims at introducing a different approach to waste management, in line with the waste management hierarchy proposed at European level. The Circular Economy law introduces some tools designed to support its objectives: the PAYT system for urban and industrial waste, the permanent coordination group on byproducts, and the participatory platform IoPartecipo.

2) Herambiente WTE plant and separation plant in Granarolo as an example of a business approach to waste management and reuse.

Advanced waste separation plant including two separate lines for monomaterial and multi material waste from separate and bulk waste collection (plastic and paper). The plant belongs to Herambiente, one of the largest multi utility companies in Italy based in Emilia-Romagna, managing yearly 5,5 mln ton/yr urban waste and 3,9 mln ton/yr industrial waste.

3) ASTER and Emilia-Romagna regional innovation policy

An overview on the main goals and the current priorities in innovation for Emilia-Romagna with a focus on the tools which are provided to companies in order to facilitate knowledge transfer. The role of ASTER in the innovation ecosystem of Emilia-Romagna is that of acting as a facilitator and catalyst, and amongst its role is the coordination of the High Technology Network. The HTN is a network of laboratories and innovation centers. HTN laboratories are facilities mainly engaged in industrial research, development of the results of applied research and disclosure of such results. 44 of the

Network's 82 laboratories are facilities sponsored by regional universities and research establishments, the other 38 laboratories are privately run, their main objective being research and development for business. Several of these laboratories are the result of academic spin-offs.

4) Examples of ongoing innovative initiatives

- [Food Crossing District](#) – ERDF Program, Emilia-Romagna
The project aims at developing two valorization value chains for byproducts of the tomato and grain industry. The project involves two large companies located in Emilia-Romagna, Barilla and ARP Tomato/Consorzio Casalasco
- [Surplus Mall](#) - EIT Climate-KIC
The project aims at realize a feasibility study for the implementation of a cloud platform to exchange scraps resulting from the metal and chemicals value chains.
- [Storm](#) – EIT KIC Raw Materials
The project objective is to implement a long term self-sustainable excellence network dedicated to provide services to external customers for the implementation of innovative, sustainable business and cooperation model solutions for the all-round recycling and/or exploitation of raw materials from end of life complex products with more attention for secondary products.

The complete agenda including speakers profile is attached to this report.



Figure 1 – Day 1 Peer Review Visit at Regione Emilia-Romagna.



Figure 2 – Day 1 Presentations and visit at HERAMBIENTE plant.



Figure 3 – Day 2 Peer Review Visit at Astar

2. Participating organizations and delegates

The involved organizations were: ASTER and RER, hosting and organizing the meeting, and visiting organizations were IVACE and AIDIMME from Valencian Community and ESS, Energy Agency for Southeast Sweden. From the hosting organizations, senior staff was involved in illustrating the regional policy on waste and innovation, and stakeholders from the local stakeholder group were involved to present ongoing initiatives.

Both visiting organizations presented the concept and program to their stakeholder groups, and from both regions the interest was high.

From Valencian Community, two high level directors were involved and the DG for Economy, Entrepreneurship and Cooperativism participated together with senior staff at both IVACE and AIDIMME. Additionally, the director of the Valencian Institute for Agriculture participated. From Kronoberg, many stakeholders were interested in joining the PR and ESS chose to invite the following:

- Stakeholders (2) involved in the new regional waste management organization to be created.
- Stakeholder responsible for regional development, sustainable growth and innovation.
- Stakeholder at NGO working with sustainable food production

From ESS, the project manager for TRIS and a senior advisor participated.

Visiting regions

Kronoberg

1. Sarah Nilsson, ESS, project manager
2. Pierre Ståhl, ESS (TRIS project partner)
3. Heidi Samuelsson, County Council of Kronoberg, Assistant Manager, Regional development sustainable growth at Region Kronoberg
4. Cecilia Axelsson, Älmhult Municipality, Environmental strategist
5. Åsa Garp, Lessebo Municipality, Energy and environmental strategist
6. Maria Unell, Miljö Linné /Refarm 2030, Director

Valencian Community

7. Enrique Moltó García, Valencian Institute of Agrarian Investigations (IVIA), Director
8. Vicente Rocatí, AIDIMME, Deputy director
9. Ana Hurtado, AIDIMME (TRIS project partner)
10. Joan Pau Plaza Villanueva, AIDIMME (TRIS project partner)
11. Francisco Alvarez Molina, Valencian Community, Director General for Economy, Entrepreneurship and Cooperativism
12. Rafael Escamilla Dominguez, IVACE, Head of the European Programme Service
13. Paco Ferrando, IVACE (TRIS project partner)

Hosting region

Emilia-Romagna

- 14.Leonardo Palumbo, Emilia-Romagna Region, Technical officer of Environmental Regulation Service on waste, remediation and public environmental services
- 15.Manuela Ratta, Emilia-Romagna Region (TRIS project partner)
- 16.Valeria Bandini, ASTER, Europe and International Unit Manager
- 17.Giorgio Moretti, ASTER, Regional High Technology Network Unit Manager
- 18.Sveva Ruggiero, ASTER, Startup department
- 19.Ugo Mencherini, ASTER, Mechanics platform manager (TRIS partner and organizer)
- 20.Sara Picone, ASTER, Energy and Environment platform manager (TRIS partner and organizer)
- 21.Fabrizio Passarini, University of Bologna / CIRI Energia e Ambiente, associated professor
- 22.Tullia Gallina Toschi, University of Bologna / CIRI Agroalimentare, full professor
- 23.Paola Sposato, ENEA, researcher
- 24.Federico Foschini, Herambiente, environmental policy advisor
- 25.Daniele Ceccantini, Herambiente, plant responsible

Reflection on the visit

1. Exchange of experiences

The following aspects were considered more interesting by participants and innovative content was shared:

Waste management

- Regional Circular Economy Law as waste management model in line with the waste hierarchy
- Secondary plus material/Surplus Mall project aimed at generating a platform for exchanging production materials which are underutilized.

Innovation

- Policy: the organisation of innovation system in Emilia-Romagna and how the EU funds have been used to build it up
- Projects and activities within Aster, Aster activities
- Seeing innovative projects like Storm and Food crossing district are working, use food waste higher up in the hierarchy, the tomato-oil project

A discussion arose during the peer review on how both waste management and the innovation policy were differently managed in the different regions. E.g. while in Emilia-Romagna it is a regional responsibility to draw the waste management plan, in the other regions municipalities are responsible for that.

The aspects related to the innovation policy in Emilia-Romagna were found useful and received particular interest by region Kronoberg. In particular, how the EU funds have been used to build up this centre could be used to develop the innovation system in Kronoberg. Today there are many actors in the innovation system but no organization to coordinate them.

The **Circular economy law** was interesting even if the region of Kronoberg are not mandated to make laws. The tools developed and to implement the law however could be used in Kronoberg.

As for Industrial Symbiosis, the project **Surpluss mall**, the regional waste management strategy and the **good practice discussion** were found most interesting.

The topic of **biogas/biomethane** was identified as common interesting topic for Emilia-Romagna and Sweden, while the topic of the food waste/agrofood waste was a common issue between the Valencian Community and Emilia-Romagna.

2. Lessons learnt for organizing peer review visits

The on time planning of the visit was crucial in order to allow project partners to identify the appropriate stakeholders who could be interested in participating. In discussions with the partners and stakeholders it was clear that a good planning horizon is important. The earlier the dates and preliminary program of the PR is set the easier it is to attract the right stakeholders to come along. Improvements and modifications of the program can also be made easier for the hosting organization.

It was useful to collect and ask profiles of all speakers involved so as to better target the expectations. A dedicated time slot was given to all visiting organizations to present themselves, here a template presentation with common topics to cover could have been useful in providing a similar level of detail in the presentations.

During the preparation of the agenda, it was decided in agreement with all participating partners to limit the visit to a 1.5 day program in order to allow a more senior staff to participate, however some of the participants suggested that more time for discussion could have been useful.

After the PR an online questionnaire was prepared by ASTER and given to all participants in order to collect their opinions. All presentations were made available.

Follow up

Keeping in contact for future collaborations is the main follow up action. The most interesting inputs from the peer review will be introduced to the Local Stakeholders Group.

A first feedback from Kronoberg is available: at a meeting about circular economy with several stakeholders present including private actors, ESS presented a summary from the peer review. The representative from the private sector network was particularly interested in Storm and Surplus Mall projects. The actors at the meeting made a wish-list where collecting information from companies of their available waste products was in high priority. Funding is a main problem as the current ERDF cannot be used for this. We also discussed the possibility to influence the next ERDF. The process is rather closed but the region of Kronoberg is one main actor and they are in the stakeholder group.

Also, ESS from Kronoberg plans to invite ASTER for biogas study visit because they have a very advanced upgrading plant and efficient collection of biological household waste, that could be of interest for the biogas project that Aster has. ESS also plans to ask ASTER to make a presentation of the Emilia-Romagna innovation policy to regional actors in Sweden.

Peer Review Visit – TRIS Project

March 29-30, 2017
Bologna (Italy)

AGENDA

29/03 9:30 - 17:30

Venue:

Emilia-Romagna Region, Via della Fiera 8, Bologna - Room “Piano Ammezzato”

9:30 - 9:45 Welcome address

Paolo Ferrecchi (General Director, Directorate general for Territorial and Environmental Care, Emilia-Romagna Region)

9:45 – 11:15 Presentations of visiting organizations

Sweden

1. Energy Kontor presentation
Sarah Nillson, Pierre Ståhl
2. Heidi Samuelsson, Assistant Manager, Regional development sustainable growth at Region Kronoberg (County Council of Kronoberg)
3. Cecilia Axelsson, Environmental strategist at Älmhult Municipality
4. Åsa Garp, Energy and environmental strategist at Lessebo Municipality
5. Maria Unell, Director at Miljö Linné /Refarm 2030

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Spain

6. Myriam Fernández Herrero, Director General for Financing and European Funds of Valencian Community
7. Enrique Moltó García, IVIA Director of Valencian Institute of Agrarian Investigations (IVIA)
8. AIDIMME presentation
Vicente Rocatí, Deputy director; Ana Hurtado, Joan Pau Plaza Villanueva
9. IVACE presentation
Francisco ALVAREZ MOLINA, Director General for Economy, Entrepreneurship and Cooperativism at IVACE, Rafael ESCAMILLA DOMINGUEZ, Head of the European Programme Service at IVACE, Paco Ferrando, IVACE

11:15- 11:30 Coffe break

11:30 – 11:50 Overall presentation of Emilia-Romagna Region: setting the scene (ASTER)

11:50 – 13:00 Focus: regulations on industrial symbiosis and circular economy in Emilia-Romagna

Leonardo Palumbo and Manuela Ratta (Emilia-Romagna Environmental Regulation Service on waste)

- Circular Economy Law - Targets and tools introduced by the regional law
- Emilia Romagna is the first European region having introduced a Regional law facilitating Circular economy
- Waste Management in Emilia-Romagna - Strategies and tools

13:00 – 14:30 Transfer to restaurant and lunch

Trattoria San Sisto Bologna (Via San Donato 194, Bologna)

14:30 – 15:00 Transfer to Herambiente Waste Separation Plant by bus

15:00 – 17:00 Study visit at [Herambiente Waste Separation Plant](#) (Via del Frullo 3/f, Granarolo

dell'Emilia, Bologna).

Advanced waste separation plant including two separate lines for monomaterial and multi material waste from separate and bulk waste collection. The plant belongs to Herambiente, one of the largest multi utility companies in Italy based in Emilia-Romagna, managing yearly 5,5 mln ton/yr urban waste and 3,9 mln ton/yr industrial waste.

17:00-17:30 Return to Bologna Central Station

19:30 Meeting point for dinner

Piazza Maggiore, in front of S.Petronio Church

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20:00 - 22:30 Dinner

Cantina Bentivoglio (Via Mascarella 4/b Bologna)

30/03 9:30- 15:30

Venue: Aster, CNR Research Area, Via Gobetti 101, Bologna - Room 214

9:30 - 9:50 Welcome address and introduction on ASTER activities
Valeria Bandini (Europe and International Unit Manager, ASTER)

9:50 – 10:30 The Smart Specialization Strategy of Emilia-Romagna and the Regional High Technology Network

Giorgio Moretti (Industrial Research Unit, High Technology Network Manager, ASTER)
The HTN is a network of laboratories and innovation centers. HTN laboratories are facilities mainly engaged in industrial research, development of the results of applied research and disclosure of such results. 44 of the Network's 82 laboratories are facilities sponsored by regional universities and research establishments, the other 38 laboratories are privately run, their main object being research and development for business. Several of these laboratories are the result of academic spin-offs.

10:30 – 10:45 Opportunities for startup mobility from ASTER
Sveva Ruggiero (Startup Unit and International Projects Development, ASTER)

10:45- 11:15 Discussion and evaluation of potential synergies

11:15 – 11:30 Coffee break

11:30 – 12:45 Focus: innovation and industrial research on industrial symbiosis in Emilia-Romagna

Ongoing innovation projects financed by the regional ERDF Program and other EU projects on industrial symbiosis involving the HTN laboratories.

- [Food Crossing District](#) – ERDF Program, Emilia-Romagna
The project aims at developing two valorization value chains for byproducts of the tomato and grain industry. The project involves two large companies located in Emilia-Romagna, Barilla and ARP Tomato/Consorzio Casalasco
Speaker: Tullia Gallina Toschi (University of Bologna, CIRI Agrofood)
- [Surplus Mall](#) - EIT Climate-KIC
The project aims at realize a feasibility study for the implementation of a cloud platform to exchange scraps resulting from the metal and chemicals value chains.
Speaker: Fabrizio Passarini (University of Bologna, CIRI Energy Environment)
- [Storm](#) – EIT KIC Raw Materials
The project objective is to implement a long term self-sustainable excellence network dedicated to provide services to external customers for the implementation of innovative, sustainable business and cooperation model solutions for the all-round recycling and/or exploitation of raw materials from end of life complex products with more attention for secondary products.
Speaker: Paola Sposato (ENEA)

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12:45 – 13:30 Evaluation and one-to-one networking opportunity

13:30 – 14:30 Lunch at CNR Canteen

14:30 – 15:30 **Good practices: TRIS partners discussion**

Each partner presents one good practice according to the template proposed by Energie Kontor

- ENERGIE KONTOR
- AIDIMME
- IVACE

SPEAKERS PROFILES

Emilia-Romagna Region

Leonardo Palumbo

Technical officer of Emilia-Romagna Environmental Regulation Service on waste, remediation and public environmental services.

Reference person for:

- Implementation of the Regional Waste Management Plan;
- Monitoring of the Regional Waste Management Plan implementation, with a special focus on waste flows towards treatment plants;
- Regional Byproducts Coordination Group.

Manuela Ratta

Officer of the Emilia-Romagna Environmental Regulation Service on waste, remediation and public environmental services.

Reference person for:

- Implementation of the Regional Waste Management Plan
- Forum on Circular Economy
- Agreements for the reduction and reuse of waste.

Aster

Valeria Bandini

She holds a Degree with Honours in Economics and Business Administration and postgraduate degrees on local development and international cooperation. She's been working in ASTER since 1992. Her focus is on European policies and programmes and she's dedicated to improve the access to European programmes and funds, the design and development of EC funded projects, the development of international relations and ASTER participation to EU and international networks to promote the regional research and innovation system.

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Giorgio Moretti

He has been working for the last 25 years on policy and instruments to strengthen cooperation between researchers and industry. In the last 12 years he has been working on regional programmes for research and innovation, in particular on design and management of actions address to R&D in research labs and companies. Now he's High Technology Network manager and the coordinator of technical assistance to supporting Emilia-Romagna Region in the implementation of Smart Specialization Strategy.

Sveva Ruggiero

Master degree in International Relations. She is in charge of EU projects planning and management and of the organization of the Start Cup, the regional business idea competition. Her main fields of activity are: startup support, Lifelong Learning actions, Cultural and Creative Industries, Regional policies for entrepreneurship development.

Sara Picone

Ph.D in Environmental Technology from the University of Wageningen in the Netherlands, she's specialized in environmental risk factors from soil contamination. Within ASTER, she supports the coordination of the Energy and Environment Platform, managing and designing European funded projects on environmental topics with a technical character. The themes she deals with are renewable energy and the bioeconomy.

Ugo Mencherini

Ph.D in "Mechanical engineering and Advanced engineering sciences" from the University of Bologna. Referent for the thematic area "Mechanics and Materials", with a focus on industrial symbiosis, circular

economy, sustainability and energy efficiency. He's author of several scientific papers published on national and international journals and is a registered journalist.

University of Bologna

Prof. Fabrizio Passarini

Associate Professor of Chemistry of Environment and Cultural Heritage. Head of the Local Organizational Unit (UOS) in Rimini of Dept. Industrial Chemistry "Toso Montanari".

Vice-director of the Interdepartmental Centre for Industrial Research "Energy & Environment", University of Bologna

Member of the Technical-Scientific Committee of "Ecomondo. The Green Technology Expo".

Prof. Tullia Gallina Toschi

Full professor at the University of Bologna, coordinator of the research group of instrumental and sensory analysis of food, directs the research interests to the study of methods for verifying the food authenticity, with a special interest in the vegetable oils and fats, in particular olive oil. She studies also food innovation, re-use of by-products and virtuous interactions in the research & development, such as the industrial symbiosis.

She coordinates international and national research projects, collaborates with many universities and institutions in Europe, disseminates the research activities, is President of the UNIBO Committee of Guarantee and Deputy Rector for the Wellness at work.

ENEA

Paola Sposito

Researcher at the Italian National Agency for New Technologies, Energy and Sustainable Economic

Development (ENEA). She holds a degree in Industrial Design at ISIA- higher Institute For Artistic Trade (Italy), and a Master degree in "Eco-design & Eco-innovation. Tools and strategies for environmental product design" at University of Camerino (Italy) and "Environmental Communication. Journalism, dissemination and green economy" at CTS Studies Centre - high education for tourism, communication and the environment (Italy). Her research is mainly connected to sustainable development issues with a special focus on circular economy and resource efficiency (eco-design, life cycle assessment, industrial symbiosis, environmental certification schemes). She has been involved on a number of international research and projects, mostly connected to SME's eco-innovation tools and strategies.

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HERAMBIENTE

Eng. Daniele Ceccantini

Master's degree in Mechanical Engineering, specialized in Production, with a strong experience built both in Energy (production and distribution of energetic utilities) and in Manufacturing (FMCG), focused on the management and maintenance of production installations.

He joined the company in 2011 as responsible for Bologna WTE Operation, role held until becoming plant manager of the new Selection and Recycling plant.

Dr. Federico Foschini

Environmental Policy Advisor, following the evolution of the environmental legislation – particularly on waste and circular economy; provides support for the compliance with the environmental legislation and helps to manage the relationships with EU and national/local institutions, taking part to several working groups within the professional organizations. Master's degree in Environmental Sciences, joined Herambiente in 2011 after 8 years as Environmental Technologist in the Italian Institute for Environmental Protection and Research (ISPRA).