

FOSTERING INDUSTRIAL SYMBIOSIS FOR A SUSTAINABLE RESOURCE INTENSIVE INDUSTRY ACROSS THE EXTENDED CONSTRUCTION VALUE CHAIN

# **Conclusions of final International Conference**

ACR+

**D9.2: Conclusions of final International Conference** WP 9, T 9.2 Dissemination Plan deployment

Authors: Francoise Bonnet, Gaelle Colas, Serena Lisai, Paolo Marengo, (ACR+)

H2020-WASTE-2014-two-stage



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement N° 642154.



### Technical References

| Project Acronym | FISSAC  |
|-----------------|---|
| Project Title   | FOSTERING INDUSTRIAL SYMBIOSIS FOR A SUSTAINABLE RESOURCE INTENSIVE INDUSTRY ACROSS THE EXTENDED CONSTRUCTION VALUE CHAIN |
| Number          | 642154  |
| Start date      | 01/09/2015  |
| End date        | 29/02/2020  |

| Deliverable No.                   | D9.2   |
|-----------------------------------|--|
| Dissemination level <sup>11</sup> | RE   |
| Work Package                      | WP 9 - Dissemination   |
| Task                              | T 9.2 – Dissemination Plan Deployment  |
| Lead beneficiary                  | ACR+   |
| Contributing<br>beneficiary(ies)  | ACC, AEN, ICV, AKG, BEF, BGM, CBI, CSM, DAP, EKO, FAB, FEN, FER, GEO, GTS, IBT, HIF, KER, OVA, RIN, SP, SYM, TCM, TEC, VAN |
| Due date of deliverable           | 29 February 2020   |
| Actual submission date            | 27 February 2020   |

#### **Document history**

| V | Date       | Beneficiary      | Author   |
|---|------------|------------------|--|
|   |            |                  |  |
| 1 | 30/01/2020 | ACR+             | Francoise Bonnet, Gaelle Colas, Serena Lisai, Paolo<br>Marengo |
| 2 | 12/02/2020 | ACC              | Daniel Hiniesto Muñoz de la Torre                              |
| 3 | 16/02/2020 | ACR+             | Francoise Bonnet, Gaelle Colas, Serena Lisai, Paolo Marengo    |
| 4 | 18/02/2020 | ACCIONA (review) | Daniel Hiniesto  |
| 5 | 19/02/2020 | ACR+             | Francoise Bonnet, Serena Lisai, Paolo Marengo                  |

<sup>&</sup>lt;sup>1</sup> PU = Public

PP = Restricted to other programme participants (including the Commission Services)

RE = Restricted to a group specified by the consortium (including the Commission Services)

CO = Confidential, only for members of the consortium (including the Commission Services)



# Table of content

| IN       | ITRODUCTION                                       |    |
|----------|---|----|
| <u>1</u> | A NO TRADITIONAL CONFERENCE                       | 5  |
| <u>2</u> | METHODOLOGY                                       | 6  |
| 2.1      | L THE FACILITATOR                                 | 6  |
| 2.2      | 2 The ConverStations                              | 6  |
| 2.3      | <b>A</b> LAYOUT TO FACILITATE THE PARTICIPATION   | 8  |
| <u>3</u> | DISSEMINATION ACTIVITIES BEFORE THE EVENT         | 8  |
| 3.1      | L GATHERING DIFFERENT PERSPECTIVES                | 8  |
| 3.2      | 2 THE CONFERENCE IN THE SOCIAL MEDIA              | 9  |
| <u>4</u> | THE FISSAC FINAL CONFERENCE                       | 9  |
| 4.1      | BROADER PICTURE AND LAUNCH OF THE FISSAC PLATFORM | 12 |
| 4.2      | 2 CONVERSTATIONS                                  | 13 |
| 4.3      | <b>B</b> WORKSHOP TO IDENTIFY RECOMMENDATIONS     | 19 |
| 4.4      | THE POSTER SESSION                                | 21 |
| 4.5      | 5 A GREEN EVENT                                   | 22 |
| 4.6      | 5 LIVE DISSEMINATION                              | 23 |
| <u>5</u> | THE DISSEMINATION AFTER THE EVENT                 | 24 |
| 6        | CONCLUSION  | 25 |



# List of Figures

| Figure 1. The event facilitator  | 6  |
|--|----|
| Figure 2. The post-it passport methodology adopted to group the participants                       | 7  |
| Figure 3. The working groups   | 8  |
| Figure 4. The first session – Towards Industrial Symbiosis across the construction value chain     | 12 |
| Figure 5. Official Launch of the FISSAC platform   | 13 |
| Figure 6. ConverStation – Table 1  |    |
| Figure 7. ConverStations – Table 7   |    |
| Figure 8. ConverStation – Table 3  |    |
| Figure 9. ConverStation – Table 4  |    |
| Figure 10. ConverStation – Table 5   |    |
| Figure 11. Navigating the journey ahead – Discussing opportunities and solutions with stakeholders | 20 |
| Figure 12. Each working table identified 5 key messages  |    |
| Figure 13. Key messages from the workshop  |    |
| Figure 14. Communication material of brother projects  |    |
| Figure 15. A networking lunch  |    |
| Figure 16. Dissemination material and samples brought by Acciona                                   |    |
| Figure 17 – The press release about the Final Conference sent to FISSAC subscribers                |    |
| Figure 18. Video of the Final Conference   | 25 |



# Introduction

The FISSAC project put together 26 partners from 9 different countries. The collaboration and mutual exchange of knowledge has been a central point during the whole project. The different WP worked together to reach successful results not only inside the factories through the case studies but also in the society, raising the social acceptance of the industrial symbiosis processes through the living labs. Furthermore, the support of all the partners helped in the building of the FISSAC platform.

The end of such a powerful project had to be celebrated with a big event in a place that could be the symbol of this union and collaboration. Brussels played this role perfectly. The Final conference took place on 29 January 2020 and saw the active participation of the whole consortium.

This report on the Final conference describes the objectives of the event and the methodology chosen to increase the participation of the attendees. Then, it lists all the activities that the Communication leader, with the support of the whole consortium, activated before the event to engage as much more stakeholders as possible. Indeed, the report contains some outcomes of the event related to the participation and the results from the different conversation engaged among the participants. Furthermore, the event was followed also from far away through the social media that were active in live disseminating the activities and the workshops that were implemented. Finally, the report lists the communication actions that followed the event.

# **1** A no traditional conference

The FISSAC Consortium saw the Final Conference as key action of the project, with the same relevance of the case studies or the living labs. With the purpose to give an important role to the event, ACR+, as dissemination leader, and ACCIONA, as Project Coordinator, decided to organise a no traditional conference, avoiding the static presentations and making the audience one of the speakers of the day. The main objective was the involvement of the participants in the discussion on industrial symbiosis, in order to analyse the topics that FISSAC brought out light and find recommendations to foster the IS processes in more value chains.

As the objective of the project was to involve stakeholders at all levels of the construction and demolition value chain, the conference aimed in creating a multi-stakeholder environment to better recreate the real audience involved in the sector. In this way, the different perspectives have been represented.

Plus, the sub-objectives were several:

- Involve the different stakeholders of the construction and demolition value chain;
- Involve researchers and experts on industrial symbiosis;
- Give and overview of the results of the project;
- Create a positive environment to generate networking;
- Collect the point of view of the EU institutions on industrial symbiosis processes;
- Discuss over the barriers and possible solution to foster the industrial symbiosis processes.



# 2 Methodology

In order to achieve the objectives, the conference followed a specific methodology to improve the engagement of the audience. The event was based on several activities and strategies to keep the attention and the participation high across the duration of the whole event.

### 2.1 The facilitator

ACCIONA and ACR+ decided to have the support of a professional facilitator for organising the conference. Following the suggestion by the EASME, the most appropriate facilitator was considered to be Peter Woodward.in. The contribution of a facilitator was very important to balance the time addressed to active workshops, brainstorming and presentations. With his support, the agenda was built in order to avoid the lack of interest and to increase the participation. Furthermore, the exciting and hilarious moderation created a safe place where, even shy people, found the courage to take the floor and state their ideas.

Mr Woodward brought his experience in international events in the final conference sharing some strategies that helped in generating active and productive discussions.



Figure 1. The event facilitator

### 2.2 The ConverStations

Frontal presentations can be hard to follow, especially when the topic is technical as in the case of construction and demolition sector. The strategy of *ConverStation* has been chosen to create an environment where the attendance could not only learn something but even share their experience and perspective.

*ConverStations* is a powerful and innovative method enabling participants to choose from and interact with a wide choice of case studies/topics during a 60-100-minute conference session. Small group presentations/discussions take place simultaneously in the single conference room providing a lively,





interactive format that encourages quality interaction and networking. The method avoids unwieldy preconference registration systems and is flexible to the actual numbers of participants present at the event. The format, developed by Peter Woodward, has been successfully used at international conferences and community workshops.

*ConverStations* take place simultaneously around small tables in one main conference room. The participants choose to attend 3 *ConverStations* from a menu of 10 or more possible topics. The participants choose the 3 topics through the *Post-it Passport* methodology. The facilitator draws a vertical line down the centre of a sheet of flip-chart paper. He attaches two A4 (landscape) topic title sheets with the table number at the top of the sheet. Underneath he attaches 7 square coloured post-its (5cm), all with the same table number written on them with a thick pen (first session). Underneath 7 post-its with the same topic number but a different colour (second session), then 7 post-its of the same topic number but a third colour (third session). The facilitator invites participants to choose 3 passports, each of a different colour and number. The system allows for those with a strong preference to come out quickly to take a post-it and those who are more relaxed to take from those remaining.



Figure 2. The post-it passport methodology adopted to group the participants

Each *ConverStation* is attended by up to 9 participants and lasts 20-30 minutes. In each table, a host gives an initial impact presentation on their topic for up to 10 minutes. The remaining 10-20 minutes is devoted to discussion with the small group. At the end of each session participants move to another *ConverStation*, while the 'host presenters' stay at their table and repeat the *ConverStation* to the new groups.

The host presenter takes on the role of facilitator, presenter (and recorder). There is not space around the table for separate people to fulfil each of these roles. The *ConverStation* starts with a quickfire round of introductions that should take no more than one minute in total - name, job role, organisation. It is important to design and deliver a presentation giving key information within 10 minutes. The presentation should provide clear hand-outs or show powerful images. The aim is to draw participants into the issue and to open up a discussion with them. The total session length is fixed at 30 minutes. Every group finishes at exactly the same time.





# 2.3 A layout to facilitate the participation

The main goal of encouraging the attendees to be part of the discussion and to exchange perspectives and ideas has been central during the planning of the event. Indeed, even the layout of the room played a big role in achieving this objective.

The room was organised in order to have several tables with 7/8 chairs around each. This configuration facilitates the conversation and discussion among the members of each small group.

Before starting the event, the attendees are gathered in the lounge room (where the lunch and the coffee break have been served). The facilitator welcomes the whole participants in the conference room encouraging them to seat in a table with people they do not know. On this way the audience is mixed and it recreates a real multi-stakeholder environment.



Figure 3. The working groups

# **3** Dissemination activities before the event

The Final Conference was strongly disseminated before the event to reach as much attendees as possible. For this purpose, ACR+, with the support of FISSAC partners, used the communication channels as defined in the dissemination plan.

### 3.1 Gathering different perspectives

ACR+, as dissemination leader, had the role of gathering attendees and the main goal has been to create a heterogeneous audience, putting together all the stakeholders involved or interest in the possibilities of the industrial symbiosis processes. For this, not only mails but also many bilateral meetings have been organised.





The first action has been to involve not only its own members but also European Institutions such as DG Environment, DG for Research and Innovation, EASME, etc.

The role of the local and regional authorities is central in fostering the industrial symbiosis processes in the real life. For this reason, ACR+ personally contacted local authorities already interested and busy in projects related environmental assessment, social acceptance and circular economy. The ACR+ member Agència de Residus de Catalunya (ARC) was contacted to bring into the discussion not only the perspective of a regional authority but also the case study of Catalunya in developing and supporting industrial symbiosis processes. Furthermore, Regione Marche was involved because of the strong effort put into developing the ITACA protocol as an environmental assessment procedure.

The University plays a central role in fostering the industrial symbiosis in the education sector: this was often brought out during the Living Labs. Thus, several university and researchers have been invited at the conference, in order to have also the point of view of some professors and students.

Finally, several private companies based in Brussels are hidden in the high number of subscribers to the FISSAC newsletter. ACR+ contacted stakeholders across the whole construction value chain, from aluminium and steel producers to architects.

### 3.2 The conference in the social media

Since the FISSAC project does not have a personal social media account, the one of ACR+ worked as tool for disseminating the event. The event was announced with a tweet on 22 December 2019, which reached 520 impressions from the followers of ACR+ (2547). The following delay of the deadline to register was announced through a new tweet which gathered 502 impressions.

Other partners tweeted about the conference before the d-day:

- Glass Technology Services (627 followers);
- Ekodenge (356 followers);
- RINA (1621 followers);

Moreover, the official account of SPIRE projects with 1709 followers tweeted about the final conference.

LinkedIn was another social media used to disseminate the event. Seven posts were published using the hashtag FISSAC gathering a total of 43 reactions, between likes, resharing and comments and reaching almost 7900 followers.

# 4 The FISSAC Final Conference

The Final Conference took place on 29 January 2020 in Rue de la Loi 42, Brussels.

It was a full-day event that followed the agenda below:





| H2020 FISSAC project – Final Conference<br>Live Room   L42 Business Center and Workspaces, Rue de la Loi 42, 1040 Brussels (BE)<br>29 January 2020 |  |
|--|--|
| 09:30 – 10:00  | Registrations and Welcoming coffee   |
|  | Towards Industrial symbiosis across the construction value   |
|  | chain  |
|  | <ul> <li>Welcome, agenda and process</li> <li>Peter Woodward, facilitator, Quest Associates</li> <li>Introducing the H2020 FISSAC Project – an ambitious transition</li> </ul>         |
|  | agenda   |
|  | Blanca Juez Sanchez and Daniel Hiniesto Muñoz de la Torre  |
|  | ACCIONA   FISSAC coordinator   |
|  | Serena Lisai and Paolo Marengo   |
|  | <ul> <li>ACR+   FISSAC dissemination leader</li> <li>EU research and innovation for the circular economy</li> </ul>  |
|  | Stefania Rocca, EASME  |
|  | Partnerships drive for value chain innovation  |
|  | Àngels Orduña Cao, Executive Director, SPIRE   |
|  | FISSAC Platform launch<br>Ozge Yilmaz, R&D coordinator, EKODENGE<br>Can ÖLÇEK, Product Manager, EKODENGE<br>Elena Rocco, LCA expert, RINA<br>Davide Maglio, IT expert, RINA            |
| 11:25 – 11:45  | Coffee break   |
|  | Participants choose 3 topics using the post-it passport methodology  |
|  | <b>Digging Deeper ConverStations</b><br>Participants choose 3 from 7 ConverStation topics, illustrating issues and aspects<br>of the FISSAC approach. Each topic repeated three times: |
|  | • Topic 1: The role of the public authorities in the development of  |
|  | industrial symbiosis. The strategy of Catalunya.   |
|  | Francesc Rufé Sola (CDW expert at ARC - Agència de Residus de<br>Catalunya);   |
|  | • Topic 2: The ITACA protocol for more sustainable buildings.  |
|  | Massimo Sbriscia (Environmental department Director - Marche Region);  |
|  | • Topic 3: Developing new professional profiles in industrial symbiosis.   |
|  | The INSIGHT project.   |
|  | Julie Decaux (Sustainable development consultant at ECORES)  |
|  |  |



| H2020 FISSAC project – Final Conference  |  |  |
|--|--|--|
| Live Room   L42 Business Center and Workspaces, Rue de la Loi 42, 1040 Brussels (BE) |  |  |
|  | 29 January 2020  |  |
|  | Topic 4: The social acceptance of industrial symbiosis.  |  |
|  | Fredrik Björk (FISSAC social advisory board member);   |  |
|  | • Topic 5: Construction and demolition waste in the building sector. The   |  |
|  | RE4 project.   |  |
|  | Zuzana Taťáková (project manager at FENIX TNT);  |  |
|  | Topic 6: A new supply chain for the glass.   |  |
|  | Chris Holcroft (principal Technologist at GTS);  |  |
|  | • Topic 7: The role of Flanders in fostering the industrial symbiosis  |  |
|  | Philippe Van de Velde (Policy advisor at OVAM)   |  |
| 13:15 - 14:00  | Networking lunch + Poster session  |  |
|  | Representatives of the following projects will attend the poster session: INSIGHT                                    |  |
|  | (Erasmus+), RE4 (H2020), BAMB, HISER (H2020), CINDERELA (H2020), ITACA   |  |
|  | protocol, SHAREBOX – EPOS – SYMBIOPTIMA – URBANREC (SPIRE projects).<br>Navigating the journey ahead                 |  |
|  | The Challenge of accelerating and scaling the FISSAC approach. Four panelists  |  |
|  | from different stakeholder groups offer provocative insights:  |  |
|  | Carmine Marzano, EU Commission DG RTD ;  |  |
|  | Massimo Sbriscia, Environmental department Director - Marche Region;   |  |
|  | <ul> <li>Adriana Sanz Mirabal, Circular Economy Consultant at Símbiosy;</li> </ul>                                   |  |
|  | <ul> <li>Fredrik Björk, FISSAC social advisory board member.</li> </ul>  |  |
|  | Recommendations for accelerating and scaling up  |  |
|  | Small groups identify up to 5 key messages/recommendations, either building on draft recommendations or blank sheet. |  |
| 15:00 – 15:15  | Networking coffee + Poster session   |  |
|  | Group feedback to plenary  |  |
|  | 'Sounding Board' Panel to comment  |  |
|  | Closing remarks  |  |
| 16:00  | Close, coffee break and networking   |  |



# 4.1 Broader picture and launch of the FISSAC platform

On the first section, ACR+ welcomed the attendees revealing the main activities of the day. Then, the two project coordinators from Acciona gave an overview of the project describing the main results achieved in terms of case studies, living labs, FISSAC model, replicability of the project and the FISSAC platform.

The speech of Stefania Rocca from EASME clarified the point of view of the EU agenda in the field of Circular Economy, Research an Innovation. She detailed not only the previous calls, which FISSAC is part of, but especially the future funding opportunities available. Indeed, she gave some interesting information on the possibilities that the EC offers in relation to the Horizon Europe (2021-2027).

The first section was closed by Àngels Orduña, executive director of A.SPIRE, who explained the aims and the results of the SPIRE projects. She encouraged the audience to discover the SPIRE vision 2050, which inspires to an integrated and digital European process industry fostering a "well-below 2°C" scenario and a fully circular economy.

Then, the FISSAC platform was officially launched by the two consortium partners (Ekodenge and RINA) mainly working on the development of the IT tool. The partners explained the aim of the platform, the main features, and the possible users. The audience has been encouraged to register in the platform and to give feedback to improve it.



*Figure 4. The first session – Towards Industrial Symbiosis across the construction value chain* 





Figure 5. Official Launch of the FISSAC platform

# 4.2 ConverStations

The 7 ConverStations took place after the coffee break.



Figure 6. ConverStation – Table 1





Figure 7. ConverStations – Table 7

Here below the topics and hosts of the *ConverStations* held at the final conference are listed:

- **Table 1:** <u>The role of the public authorities in the development of industrial symbiosis. The strategy of</u> <u>Catalunya.</u> Francesc Rufé Sola (CDW expert at ARC -Agència de Residus de Catalunya);
- **Table 2:** <u>The ITACA protocol for more sustainable buildings.</u> Massimo Sbriscia (Environmental department Director -Marche Region);
- **Table 3:** <u>Developing new professional profiles in industrial symbiosis. The INSIGHT project</u>. Julie Decaux (Sustainable development consultant at ECORES);
- **Table 4:** <u>The social acceptance of industrial symbiosis.</u> Fredrik Björk (FISSAC social advisory board member);
- **Table 5:** <u>Construction and demolition waste in the building sector. The RE4 project.</u> Zuzana Taťáková (project manager at FENIX TNT);
- Table 6: <u>A new supply chain for the glass.</u> Chris Holcroft (principal Technologist at GTS);
- **Table 7:** <u>The role of Flanders in fostering the industrial symbiosis</u>. Philippe Van de Velde (Policy advisor at OVAM).







Figure 8. ConverStation – Table 3

Below the main outcomes of the *ConverStations* are reported according to the host feedback.

#### Francesc Rufé Sola:

In my ConverStation I focused in 3 main streams; first, giving a general view of Catalonia CDW data, then I explained our actions related with CDW circular economy and finally, I showed a pair of tools used to interact between CDW actors (Catalan Waste Agency In them) related with circular economy.

Regarding the first stream, the purpose was to give the audience Catalonia references through a chart of the evolution of final disposal % Vs recovery % of CDW, in order to able them to compare with their regions. It also gave an idea on the impact of the second stream. On the chart, attendees found significant the effects of 2008 crisis in CDW. They also found highly significant the effect of implementing and quitting the final disposal tax (we had to temporally quit it due to the crisis). The chart was very clear at this point.

Talking about the actions related with CDW circular economy, I noticed that assistants found interesting and agreed with the  $3 \notin$ /tone tax for the final disposal and the  $11 \notin$ /tone deposit of guarantee refund system. They found these policies try to find circular economy and minimize the landfill use.

The last block was focussed in an explanation of two tools that showed online channels. One used to relate between waste management actors (CDW actors in them) and Catalan Waste Agency and the second tool was more focussed on industrial symbiosis itself. This last one captured interest in attendees for example in its impacts on the origin (when the project is being written) and I tried to focus in the importance of it. Also the easiness of substitution options offered when choices of raw materials can be substituted for recycled aggregates and showing the distance from the provider to the work. Quite interesting the potentiality it has if it's implemented to other materials, apart from recycled aggregates. Also liked them the information it shows about your project sustainability (CO<sub>2</sub> emissions on different phases; producing, construction and deconstruction). I showed that the tool takes in account your choices and then, shows the emissions of GHG for exemple. I also noticed positive impact on attendees, showing that the tool could be useful for the entire items in a project writing as for example; budget, economic certification, planning, quality control, environmental management, health and security, cost control and cost estimation.





#### Massimo Sbriscia:

During the ConverStation, we illustrated the structure and purposes of the ITACA protocol. The Protocol is a tool drafted and approved by ITACA (Institute for Transparency in Procurement and Environmental Compatibility) which is a public body established by the Regions. The Protocol from 1-07-2019 has become a reference practice (pdr) UNI. Therefore, it has a national value on an Italian level. This is why it is an instrument of particular interest both because it is public and because it is on a national scale. Other similar instruments, present in European countries, are of a private nature.

On one hand, the ITACA protocol allows to verify the compliance of a project with the CAM (Minimum environmental criteria dictated by Italian law mandatory for public buildings) and, on the other hand, its criteria include not only environmental but even urban and social aspects.

During the discussion, positive assessments were expressed on the action of Italy of imposing minimum environmental constrictions in the construction of public buildings, criteria which do not exist in all European countries.

Another point of discussion focused on the use of secondary raw material from recycling process. In fact, the ITACA Protocol provides a precise criterion for measuring the percentage of such materials in new building, compared to the minimum limit imposed by law (the CAM for public buildings imposes 15% by weight). In general, there was a shared need for a harmonized system of technical standards which makes the qualification of the recovered material simpler and clearer and which is constantly updated. Another shared aspect was the importance of design which take into consideration the post-life of the product (ecodesign) making easy to disassemble the various components with different materials, facilitating their recovery.

#### Julie Decaux:

To start the conversation the participants were asked to present themselves and to think of a professional profile that could help develop industrial symbiosis or more largely circular economy in the construction sector. Several interesting ideas came out of the discussions, for example: industrial Symbiosis facilitator; public procurement adviser to include EC and IS; legal adviser to include IS in urban planning; circularity manager in big companies to communicate and evaluate all obstacles and opportunities; IS teachers.

INSIGHT project was then presented including:

- The partners: Ecores, Symbiosis, STP, CETEM, SFC and CNPCD;
- The objectives: Equip users with the right skills and knowledge about industrial symbiosis from today and tomorrow; Create new job opportunities; Boost businesses to adopt circular economy principles.
- The first results of the interviews covering skills and tasks necessary to frame the emerging profile of IS facilitator.

More information: <a href="https://www.insight-erasmus.eu/the-project/about/">https://www.insight-erasmus.eu/the-project/about/</a>

The barriers of Industrial Symbiosis implementation were also discussed, with the main ideas:

How to overcome the risk distribution difficulties? Who is responsible for the quality of the "waste"?





- Where is the lack of trainings? I.e. Circular Economy, Industrial symbiosis or even sustainable development are not mandatory in engineering cursus.
- What financial incentives should be created?

#### Fredrik Björk:

A starting point of the conversations was 'why could a social perspective be relevant when we talk about industrial symbiosis'? In general, there were two main topics: 1) social aspects of the industrial symbiosis production system: the need to build trust among different players, across cultures, between different professions and sectors of society to foster a climate of collaboration. Here we talked about balancing competitiveness vs collaboration, business secrets vs transparency; 2) social acceptance, which more or less in this context was about the willingness of consumers to buy the products that are the result of repurposing/recycling etc. On this topic there seemed to be regional differences in consumer attitudes, and education (on all levels) was highlighted. Also mentioned, was that this could also to some extent relate to lack of trust on the consumer side.

#### Zuzana Taťáková:

The FISSAC Final Conference was an amazing opportunity to present the work of all partners and to finish the project with a successful event. The venue was pleasant and accommodating and a great space for such Conferences. Peter who was guiding us through the day has great facilitating skills and managed to face a challenging and diverse group of participants. All participants (project partners, researchers, industry specialists, academics etc.) were extremely engaged the whole day which contributed to a positive and inspiring atmosphere. During the Conver-stations - FENIX presented the H2020 RE<sup>4</sup> project to many enthusiastic participants, and managed to get many insightful questions and ideas about the topic of CDW management. The concept of Conver-stations is a great tool to gain the most out of a very information packed day by concentrating the topics to smaller groups and directly engaging with the participants. Overall the FISSAC Final Conference was a great success and will remain a very memorable moment at the end of the four- and half-year long project.

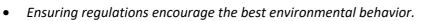
#### **Chris Holcroft:**

The introduction to this session provided information on the complexities of the construction glass supply chain. Glass produced in a furnace at approximately 1450°C before being made into a window unit by a different factory and fitted in a building. At the end of its service the window can either be removed carefully in one piece or in the case of many demolition projects it is broken and crushed to use as a backfill material. The benefits of collecting this material for remelting or reusing were discussed; including reducing the need for mining new materials, saving 322kwh/tonne of energy and 246kg per tonne of carbon dioxide. Alternative uses for the material such as the FISSAC Ecocement case study were also highlighted. Successful construction glass recycling case studies from the UK were presented.

The group discussed barriers and opportunities for increasing the quantity of glass collected for closed loop recycling or upcycling. These included:

- Increasing awareness of the importance of recycling construction glass.
- The importance of design for deconstruction to make materials easy to separate.
- Having sustainability champions involved in construction projects to help make the correct choices.





- Sharing case studies and best practice.
- Building recycling criteria into the specification and tendering process early in project development and ensuring a level playing field for companies bidding for projects.

#### Philippe Van de Velde:

The OVAM presented its contribution and support as an agency of the Flemish regional government, to the development of an electronic symbiosis platform. At this stage I compared the Flemish platform and methodology to the FISSAC symbiosis model and tool. Both development aim to facilitate a match between supply and demand for waste streams which can be applied as (secondary) resources. The main strength of the Flemish tool is the built-in facilities to offer expert insights from the start of the process. All steps are aimed to reduce the operating costs while offering optimal value for money.

During the discussions it came to light that similar platforms face comparable challenges. The willingness to pay from both producers of waste streams and from the potential users of the resources are limited. Once a connection is pointed out too often the eagerness to conclude a transaction stands in the way of a lasting interaction. Companies that have found a suitable resource are not willing to share the outcome of the interaction, and are even less prepared to continue to pay for the upkeep of the symbiosis system. There is too little feedback on the achievements and lasting effects of the symbiosis. This would help to convince others to join and share their data and particulars.



Figure 9. ConverStation – Table 4

**FISSAC** 





Figure 10. ConverStation – Table 5

### 4.3 Workshop to identify recommendations

With the purpose to identify some specific recommendations to foster the industrial symbiosis across different sectors, ACR+ organised a workshop in the last section of the conference. Four external speakers took the floor to give some provocative insights to stimulate the further discussion: the audience from the perspective of the EU Commission, the regional authorities, the social sciences and the different stakeholders involved in the Living Labs:

- Carmine Marzano, EU Commission DG RTD who brought the European Commission perspective in the focus;
- Massimo Sbriscia, Environmental department Director of the Marche Region, who tackled the angle of a regional authority;
- Adriana Sanz Mirabal, Circular Economy Consultant at Símbiosy, who summarized the main outcomes of the FISSAC living lab in Barcelona;
- Fredrik Björk, FISSAC social advisory board member, who highlighted the importance of the social issue and the cultural heritage.







Figure 11. Navigating the journey ahead – Discussing opportunities and solutions with stakeholders

In the following workshop the attendees were divided into small groups to identify key messages to accelerate and scale up the FISSAC methodology. The participants drew inspiration from barriers and solutions highlighted thorough the project activities by the consortium partners.

Each group come up with recommendations that the facilitator clustered in a white board, boosting the participation of the whole audience.



Figure 12. Each working table identified 5 key messages

In the following figure the main outcomes of the workshop are visualized.







Figure 13. Key messages from the workshop

### 4.4 The poster session

The Final Conference worked as a great opportunity for the whole consortium for networking with representatives of the private sector, local authorities, research and civil society. With this purpose, a poster session was set up in the lounge room during the lunch. ACR+ invited several H2020 projects to display their poster and communication material, encouraging the exchange of contact.



Figure 14. Communication material of brother projects





Figure 15. A networking lunch

The following projects attended the poster session:

- PAPERCHAIN (H2020)
- INSIGHT (Erasmus+);
- RE4 (H2020);
- BAMB;
- HISER (H2020);
- CINDERELA (H2020);
- ITACA protocol;
- SHAREBOX EPOS SYMBIOPTIMA URBANREC (SPIRE Projects).

### 4.5 A green event

A lot of effort has been put in organising the event in the most sustainable way possible. First of all, the choice of the venue has been made taking in consideration the location. The L42 venue is located in a very central position in the European neighbourhood, only 2 minutes walking from one of the main metro stations (Arts Loi).

Furthermore, the selection of the catering for the lunch highly evaluated the sustainable strategies adopted. The vegetarian/vegan options had the majority over the meat and fish alternatives, in order to reduce the carbon footprint of each meal. The caterer selected local and organic ingredients and the coffee breaks where organised in order to bring to zero the use of plastic.

Although the number of participants was defined some days before the event, the lunch generated some leftovers. The organisers of the lunch disposed the food left inside some cartoon boxes and the participants were encouraged to bring some meals with them for the journey back home. In this way, the food waste has been totally avoided.





# 4.6 Live dissemination

The social media accounts of FISSAC partners and of the participants were very active during the event. ACR+ published 5 tweets in Twitter reaching more than 6200 impressions and more than 90 engagements. Other partners tweeted about it.

ACCIONA prepared promotional material of FISSAC project for the Final Conference and each of the participants was given a bag with FISSAC logo, a book and a leaflet. Moreover, samples of FISSAC innovative products were prepared and sent to Brussels to be shown during the final conference.



Figure 16. Dissemination material and samples brought by Acciona



# 5 The dissemination after the event

The event has been disseminated the day after through the main communication channels defined by the dissemination plan.

ACR+ published a press release which has been forwarded to the FISSAC subscribers and some press contacts. The mail sent followed the project identity layout and focused on the launch of the platform as a new tool to facilitating the decision making in material flow analyses and industrial clustering unveiled.



*Figure 17 – The press release about the Final Conference sent to FISSAC subscribers* 

As usual, the activity has been disseminated on the website updating the tailored section of the Final Conference with photos and presentations, and publishing a news. On the other hand, all the partners disseminated the event through their own websites and communication channels.





Finally, a <u>video</u> illustrating the most important moments of the event was published on the website and disseminated through the all Consortium.



Figure 18. Video of the Final Conference

# 6 Conclusion

The Final Conference worked not only as disseminating tool of the outcomes of the project, but it also opened the discussion toward future opportunity of collaboration to foster the industrial symbiosis in different value chain.

The focus on the involvement and participation of the attendees in the discussion, allowed to create an environment which boosted new ideas and recommendations to build together future opportunities after FISSAC.

