

# 4<sup>th</sup>, 5<sup>th</sup> & 6<sup>th</sup> December 2019

Maison des Sciences de l'Homme  
4 rue Ledru 63000 Clermont-Ferrand - FRANCE



**Paradigms, models,  
scenarios & practices**  
*in terms of strong sustainability*

**30<sup>th</sup>**  
Years of  
Jean Monnet Programs

A symposium organized  
by the *Jean Monnet Excellence Center on  
Sustainability (ERASME)* and by *Plate-forme 21*,  
with the support of :

# How to promote strong sustainability by relying on multiple skills ?

## The objectives of this symposium

- Present the expertise of researchers in sustainability
- Propose a methodological framework for integrating systemic issues such as biodiversity, climate, energy transition, water management...
- Discuss the ability of academic, institutional and socio-economic actors to carry out sustainability at a local scale.
- Initiate research actions with socioeconomic actors and local municipalities in the Massif Central area.
- Create a network of European and international researchers on strong sustainability.

## Expected public

- Researchers, teachers and students.
- Academic, institutional and socio-economic actors.

## The context

While the notion of sustainability continues to be associated with the Brundtland Report (1987) and the concept of sustainable development, a community of sustainability researchers and practitioners increasingly seeks to emancipate the concept to be consistent with the knowledge and aspirations of the moment.

The enthusiasm and expectations for more sustainability go beyond mere environmental issues. They touch on crucial social issues as well. Indeed, if reducing our ecological footprint is a necessity, the prerequisite of reduced consumption is associated with other social objectives. Some of those objectives claim a certain legitimacy, for instance the prominent Sustainable Development Goals (SDGs). Eradication of poverty and inequality, universal access to education, electricity and water should not be treated as mere political goals, but as urgent demands from the world's citizens. The recent Yellow Vests movement in France is just one example of what citizens demand today: less inequality and more participatory democracy to solve social problems.

Academics as well as practitioners should refuse compromises and possible cover-ups that originate from a weak sustainability paradigm, for example green growth and decoupling. The symposium papers intends to question the paradigms, models, scenarios and practices that embody sustainability. One may wonder what meaning should be given to the very idea of sustainability and the representations it conveys.



## Wednesday December 4<sup>th</sup>

- 9:30 – Registration.
- 10:15 – Welcome message.
- 10:30 to 12:00 – Keynote Speakers.

AMPHI 219 - ENGLISH / french translation



**System Dynamics, Education learning, food and socio-ecological systems, by Birgit KOPAINSKY**  
*University of Bergen (Norway) & ETH Zurich (Switzerland).*

Birgit Kopainsky is Professor of System Dynamics in the Department of Geography, University of Bergen (Norway). She is also associated with an applied-research consulting companies in agricultural and regional economics (Switzerland). She got a PhD in Agricultural Economics from ETH Zurich (Switzerland). As a researcher and systems designer, she has been interested in learning issues, socio-ecological systems and food systems.



**Transdisciplinarity, by Basarab Nicolescu - CNRS, CIRET.**

Basarab Nicolescu is CNRS member and theoretical physicist at the *Laboratoire de physique nucléaire des hautes énergies de l'Université Pierre et Marie Curie*. He is also president and founder of *International Center on Research and Studies for Transdisciplinarity (CIRET)*. He published many articles on the role of science in contemporary culture. In Texas, the Academy of Transdisciplinary Learning and Advanced Studies (ATLAS) instituted a *Basarab Nicolescu prize for Science and engineering transdisciplinarity*.

- 12:00 – Lunch.
- 1:30 PM to 3:30 PM – In parallel, two presentation sessions and an "Atelier-débat".

### CONFERENCE 1 Paradigms for strong sustainability

ENGLISH  
French translation

AMPHI 219

- **Economics, democracy and sustainability of the Anthropocene. A dialectic investigation on the paradigms of environmental and ecologic political economy.**

*Pietro Beltramello (University of Padua, Italy).*

- **Redefining sustainability in the Anthropocene. A complexity-based paradigm for responsible research and regenerative economics.**

*Anne Snick (SAPIIR, Belgium, Club of Rome).*

- **The implications of a linear global phosphorus supply chain on the world's regions.**

*Claudiu Nedelciu, Kristin Vala Ragnarsdottir, Ingrid Stjernquist (University of Iceland, Reykjavik, Iceland; Stockholm University, Sweden).*

- **Towards "sustainable wellbeing" : advances in contemporary concepts.**

*Tadhg O'Mahony (University of Turku, FFRC, Finland).*

### CONFERENCE A Climate crisis & strong sustainability

Only in ENGLISH

AMPHI 220

- **Climate Change Vulnerability Index : A Practical Tool for Regional Planning and Development to Achieve Sustainability.**

*Manoranjan Ghosh (IIT Kharagpur, India).*

- **Cooperation in an age of emergency ? Climate action as the catalyst for rapid transition towards strong sustainability.**

*Steven R. Smith, Ian Christie (Centre for Environment and Sustainability, CES, UK).*

- **Climate change is not the problem, the problems are our economic system and the demography : Manifesto for strong sustainability.**

*Arnaud Diemer (UCA, ERASME, CERDI, France).*

- **When does it pay to be adapted to climate change ?**

*Nicolas Baelen (Ecole Universitaire de Management, CLERMA, Clermont-Ferrand, France).*

**ATELIER-DÉBAT**  
Paysages & biodiversité

Only in FRENCH

SALLE 332

*Les acteurs parties prenantes de projets visant à préserver les paysages et la biodiversité échangeront sur le croisement de leurs compétences et son impact en matière de durabilité, ainsi que sur les ingrédients d'une synergie de compétences réussie.*

- 3:30 PM – Break.
- 4:00 PM to 6:00 PM – In parallel, – In parallel, two round-table discussions and an "Atelier-débat" :

**ROUND-TABLE 1**  
Sustainable  
Development Goals

ENGLISH  
French translation

AMPHI 219

• **Achieving SDG-Effective Aid : How does Aid Impact Water and Sustainable Development Outcomes in Fragile States ?**

*Carlos Zepeda (School of Oriental and African Studies (SOAS), University of London, UK).*

• **Assessment of linkages between mitigation interventions and SDGs : evidences from Indian agriculture.**

*Shreya Some (Jadavpur University, India).*

• **SDGs Oriented Action.**

*Mariola Zalewska (University of Warsaw, Poland)*



**Global Environmental Outlook and Governance by Joyeeta GUPTA – Amsterdam University.**

Joyeeta Gupta is professor of Environment and Development in the Global South at the Amsterdam Institute for Social Science Research and IHE Institute of Delft University (water education). She was co-chair of UN Environment's Global Environmental Outlook (2016 - 2019) which was recently presented to 195 governments participating in the United Nations Environment Assembly in March 2019. She was and continues to be leader in the Intergovernmental Panel on Climate Change (IPCC) which shared the 2007 Nobel Peace Prize with Al Gore and the Millennium Ecosystem Assessment which won the Zayed Second Prize.

**ROUND-TABLE 2**  
Europe &  
strong durability

Only in ENGLISH

AMPHI 220

• **Economic Complexity as a factor of regional sustainability during economic crisis.** *Konstantin Grasmik, Giancarlo Corò (Ca'Foscary University, Italy).*

• **On the potentials of and challenges for indicator based trend analyses and forecasts**

*Mark Meyer (GWS).*

**ATELIER-DÉBAT**  
Territoires  
& villes durables

Only in FRENCH

SALLE 332

*Des acteurs parties prenantes de projets en faveur des territoires et villes durables échangeront sur le croisement de leurs compétences et son impact en matière de durabilité, ainsi que sur les ingrédients d'une synergie de compétences réussie.*

- 7:00 PM to 8:30 – Reception at the town hall, presentation of two awards to researchers.
- 9:00 PM to 11:00 PM – Dinner at Fred and Nathalie Restaurant, 32 rue Drelon in Clermont-Ferrand.



## Thursday December 5<sup>th</sup>

• 8:45 to 10:15 – Keynote Speakers.

AMPHI 219 - ENGLISH / french translation



**Ecological Economics : interdependence and coevolution between human society and ecosystems, by Robert COSTANZA** - *Australian National University (Australia)*.

Robert Costanza is one of the pioneers of Ecological Economics which studies interdependence and coevolution between human societies and ecosystems in time and space. Internationally recognized for its interdisciplinary work, combining ecology and economy and its commitment to sustainable development, he is one of the first scientists to propose an approach integrating the limited nature of natural resources into economic models. His research had a considerable influence on the question of natural capital. Author of many books, Robert Costanza is Professor of Public Economics at the Crawford School of Public Policy (Australian National University). He is member of the National Council of Science and Environment in Washington DC, the Stockholm Centre for Resilience.



**The collapse of societies, by Joseph TAINTER** - *Utah State University*.

Joseph Tainter has a PhD in Anthropology. Previously he was teaching at the University of New Mexico and Arizona. Until 2005, he managed a Research Project on Cultural Patrimony at Rocky Mountains. He is a professor at ENVS since 2007 and held the position of Head of Department from 2007 to 2009. His study on the causes of societies collapse led to research on sustainable development, focusing on energy and innovation. He has also conducted research on land use conflicts and human responses to climate change..

• 10:15 – Small break.

• 10:30 to 12:30 – In parallel, two conferences and one “Atelier-débat”.

### CONFERENCE 2

Finance  
& Corporate  
Sustainability

ENGLISH  
French translation

AMPHI 219

• **Socially responsible indices : What contribution for sustainability ?**

*Abdelbari El Khamlichi (CleRMA, France ; Université Chouaib Doukkali, ENCG, Morocco).*

• **Financing pensions in a degrowing economy : an exploration with a post-Keynesian SFC model.**

*Antoine Monserand (CEPN, Paris 13, France).*

• **Financing Sustainability at EU level : state of play and key challenges.**

*Michele Alessandrini, Pietro Celotti, François Levarlet (T33, Italy).*

• **Parametric index insurance in developing countries : a reflection on the estimation of the risk.**

*Marie-Eliette Dury, Bing Xiao (UCA, CERDI, France).*

• **Sustainability through Corporate Social Responsibility contribution by Oil and Gas Industrial Cluster : the Case of Dadu, Sindh, Pakistan.**

*Maryam Kalhoro (Sindh University Campus Larkana, Sindh, Pakistan).*

### CONFERENCE B

Sustainable  
consumption

Only in ENGLISH

AMPHI 220

• **Sustainable consumption on the crossroad between individual and social preferences - the chances of the concept of identity.**

*Anna Horodecka (Warsaw School of Economics, Poland).*

• **Leap in structural change only ensure sustainability.**

*Sureh Suresh Gautam (Tribhuvan University ; Kathmandu, Népal).*

• **Transition through “sustainable wellbeing”, an approach to overcome what consumes us.**

*Tadhg O'mahony, Jyrki Luukkainen, (University of Turku, FFRC, Finland).*

• **Economic behavior and environmental equilibrium : analysis from game theory.**

*David Perez-Rebolledo, Katia Romero-Leon (Lomas del Estadio S/N, Col. Zona Universitaria, Facultad de Economía, Veracruz, México - Mexique).*

• **Evaluation of a political socialization strategy within family communities, from a governance and sustainability approach, with an educational nature.**

*Enrique Manero Moreno (Manero Design, Mexico).*

## ATELIER-DÉBAT Innovations sociales

Only in FRENCH

SALLE 332

- La recherche-action socialement innovante et ses conséquences épistémologiques.  
*Frank Moulaert (Université de Louvain, Belgique).*

- 12:30 – Lunch.
- 2:00 PM to 3:30 PM – In parallel, two round-table discussions and an "Atelier-débat" :

## ROUND-TABLE 3 Developing Countries & strong durability

ENGLISH  
French translation

AMPHI 219

- Design test sustainable socio-economic development for developing countries.  
*Abdessamad Ouchen (ENCG, Fès Université Sidi Mohamed Ben Abdellah Fès, LAMAFAO, Morocco).*
- Tax revenues and social protection financing in African and Latin American Countries.  
*Afrika Ndongezi-Nsabimana (CERDI, UCA, France).*

## ROUND-TABLE 4 In a relativistic world, strong sustainability has no sense !

Only in ENGLISH

AMPHI 220

- Philosophical explorations and debate about the implications of postmodernism on the reality of the sustainability challenge and the need for realist standpoints.  
*Hots : David Collste (Stockholm Resilience Center, Sweden; ERASME) et Jenneth Parker (Schumacher Institute, UK).*

## ATELIER-DÉBAT Économie circulaire

Only in FRENCH

SALLE 332

*Des acteurs parties prenantes de projets d'économie circulaire échangeront sur le croisement de leurs compétences et son impact en matière de durabilité, ainsi que sur les ingrédients d'une synergie de compétences réussie.*

- 3:30 PM – Break.
- 4:00 PM to 6:00 PM – In parallel, two conferences and a round-table.

## CONFERENCE 3 Sustainable food systems

ENGLISH  
French translation

AMPHI 219

- Towards Sustainable Food Production Systems in Qatar : Assessment of the viability of Aquaponics.  
*Sana Abusin, Brian Washington (Qatar University, Qatar).*
- Social movements and the right to access. The perspective of food sovereignty on the sustainable development.  
*Pierre-Mathieu Le Bel, Paulo Moruzzi Marques, Manuela Maluf Santos, Roberta Moraes Curan, Vitória Oliveira Pereira de Souza Leao (IRSTEA, France).*
- Intelligent Local Food System (SALi) : a new conceptual model for a system integrated urban food based on optimization and metabolic intelligence.  
*Huda Saci, Ewa Berezowska-Azzag (Ecole Polytechnique d'Architecture et d'Urbanisme (EPAU), Algeria).*
- The degradation of sustainability of food systems by ultra-processed foods : the 3V rules to counteract it.  
*Anthony Fardet. Edmond Rock (INRA Clermont Ferrand. France).*
- What complementary contributions of different evaluative approaches (dimensions, properties) in terms of strong sustainability ? Contribution of the IDEA4 method to the assessment of farm sustainability.  
*Adeline Alonso Ugaglia, Frédéric Zahm, Bernard Del'homme, Sydney Girard, (IRSTEA, Cestas, France).*

## CONFERENCE C

Local Collective  
action for  
sustainability

Only in ENGLISH

AMPHI 220

- **Collective Action Initiatives in the Energy Transition. Supporters of a strong sustainability paradigm ?**

*Alessandro Sciullo, Osman Arrobbio Dario Padovan (Universita di Torino, Italy), et al.*

- **Ecological and local markets as cooperative strategies to achieve sustainable consumption.**

*Mariana Montano-Ortiz, Katia Romero-Leon, David Perez-Rebolledo (Universidad Veracruzana, Mexico).*

- **Who participates in and drives collective action initiatives for a low carbon energy transition ? Statistical evidence from Europe.**

*August Wierling, Valeria Jana Schwanitz, Jan Pedro Zeiss (Western Norway University of Applied Sciences, Norway) et al.*

- **Social and Solidarity Economy organizations as Bio-economic Systems ? Insights from the case-study of the "Association Sahel Vert".**

*Pietro Beltramello (University of Hohenheim, Germany).*

## ATELIER-DÉBAT

Agriculture  
& alimentation

Only in FRENCH

SALLE 332

*Des acteurs parties prenantes du Projet Alimentaire Territorial du Grand Clermont échangeront sur le croisement de leurs compétences et son impact en matière de durabilité, ainsi que sur les ingrédients d'une synergie de compétences réussie.*

- 7:30 PM to 10:30 PM – Dinner at Fred and Nathalie Restaurant, 32 rue Drelon in Clermont-Ferrand.



## Friday December 6<sup>th</sup>

• 8:45 to 10:15 – Keynote Speakers.

AMPHI 219 - ENGLISH / french translation



**Energy Systems and Collective Actions Initiatives, by Valeria SCHWANITZ - Western Norway University.**  
Valeria Jana Schwanitz is Professor at the Western Norway University. Economist of energy, she works on Energy System Modeling and Empirical Analysis of Man-Nature systems in the context of climate change and development sustainable. His research is about: the analysis of energetic and technological systems based on data, the integrated assessment of Human-Nature systems and the epistemology of integrated assessment modelling. At the Natural Sciences and Engineering department, she is the interlocutor of the European Alliance of Research on Energy and Norwegian reference group on Horizon 2020 - Energy and SET).



**Villes durables, by Paul JAMES - Western Sydney University.**  
Paul James is managing the Cities Program (Global Compact) of United Nations (Melbourne et New York). He is teaching Globalization and Cultural Diversity at the Institute for Culture and Society (ISC) of Western Sydney University.  
He received in 2017 the Jean Monnet Award for his research on Sustainable Circles.  
Paul James is Member of the Institute of Postcolonial Studies and of the Royal Society of the Arts (London).

• 10:15 – Break.

• 10:30 to 12:30 – In parallel, two conferences and a round-table.

### CONFERENCE 4 From biodiversity Conservation to bioeconomics

ENGLISH  
French translation

AMPHI 219

• **The bio-based economy from a strong sustainability perspective.**

*Therese Bennich, Salim Belyazid (Stockholm University, Sweden).*

• **The Management of National Parks : Sustainability, challenges and constraints : Case of Djurdjura National Park (PND).**

*Fatima Debiane, Mohamed Dahmani (University of Mouloud Mammeri, Algeria)*

• **The microbial world : an unknown diversity of living beings essential for human, animal and plant life and sustainable development.**

*Gérard Fonty (GREFFE, France).*

• **Nicholas Georgescu-Roegen's bioeconomics and the Anthropocene : Some perspectives for the sustainability of economic processes facing planetary boundaries.**

*Sylvie Ferrari (University of Bordeaux, Gretha, France).*

• **Industrial symbiosis, a circular bioeconomy strategy : the sugar beet case study at the Bazancourt-Pomacle Platform.**

*Manuel Morales (Neoma Business School, Reims, France), Gemma Cervantes (GIEI, Mexico).*

### CONFERENCE D Education for strong Sustainability

Only in ENGLISH

AMPHI 220

• **Service Learning for the Achievement of the Education for Sustainable Development : Analysis of educational contexts and case studies in Japan and Malaysia.**

*Ryohei Kageura, Ryo Tatsumi (Kyoto University of Foreign Studies, Japan).*

• **How to endorse university students with sustainable development related skills ? A Sectoral Development Model for Higher Education.**

*Pinar Ozuyar (Istinye University, Istanbul, United Nations Program Deputy).*

• **Rethinking Education in Africa, a Paradigm for Education for Sustainability.**

*Joseph Tembo (Ministry of General Education, Zambia).*

• **Develop self-confidence through a transformation of assessment practices**

*Francine Pellaud (HEP Fribourg, Switzerland).*

• **Education and sustainability, how SDGs contribute to change the representations of developing issues ? The Case Study of Pakistan**

*Faheem Khushik, Arnaud Diemer (UCA, ERASME).*



## ROUND-TABLE 5

Only in ENGLISH

SALLE 332

### • Energy Jean Monnet Network

Cette table ronde vise à faire émerger un projet de création de réseau européen Jean Monnet de l'énergie (à déposer en février 2020) associant des chercheurs, des formateurs et des entreprises du secteur énergétique. Le projet serait constitué sur la base d'une intégration des différents champs de l'énergie (énergie – infrastructures ; énergie efficacité, énergie justice, énergie accès, énergie sécurité, énergie locale et décentralisée...).

- 12:30 to 2:00 PM – Lunch.
- 2:00 PM to 4:00 PM – in parallel, two conferences and a round-table.

## CONFERENCE 5

Pathways of Transformation

ENGLISH  
French translation

AMPHI 219

### • Quantum Theory as a source of insights to foster deep socio-ecological transformations toward strong transdisciplinarity. Potentialities, pitfalls and a possible way forward.

*Cyrille Rigolot (AgroPARisTech – VetAgro Sup, Territoires, France).*

### • Three Horizons for the Sustainable Development Goals : A Cross-scale Participatory Approach for Transformative Pathways.

*David Collste, Ana Paula Aguiar, Zuzana Harmackova (Stockholm Resilience Centre, Sweden).*

### • Causal network analysis for natural resource conflicts.

*Marie Schellens, Lucas Dawson (ERD, Natgeo, Stockholm University, Sweden).*

### • Please, cover these differences, which I cannot see ? Explain the incommensurability for discuss the development sustainable behaviour of the territories.

*Sandrine Allain, Nicolas Salliou (Université de Toulouse, AGIR, France; PLUS, Zurich, Switzerland).*

### • Deliberation : a new economic paradigm for a more democratic, inclusive and ecological society ?

*Eric Dacheux, Daniel Goujon (UCA, Communication et Société, France).*

## CONFERENCE E

Sustainable Evaluation & Indicators

Only in ENGLISH

AMPHI 220

### • The Sustainability Gap : An environmental index of strong sustainability.

*Arkaitz Usubiaga-Liaño, Paul Ekins (University College London, England).*

### • Frontrunners and laggards : how fast are the EU and its Member States moving towards the Sustainable Development Goals ?

*Markus Hametner, Mariia Kostetckaia (Vienna University of Economics and Business, Austria).*

### • How to assess sustainability : examples and challenges from the EU cohesion policies.

*Gaia Galassi, Andrea Gramillano, François Levarlet (T33, Italy).*

### • The issue of assessing the sustainability of public policies in terms of in waste management in Algeria, Study applied to PROGDEM.

*Souhila Belkis, Belaid Abrika (Université Mouloud Mammeri, Algeria)*

## ROUND-TABLE 6

Only in ENGLISH

SALLE 332

### • Industrial Symbiosis Project (H2020).

Cette table ronde réunit des chercheurs et acteurs industriels engagés dans des solutions techniques et innovantes permettant de s'adapter au changement climatique. La symbiose (synergie entre plusieurs acteurs qui s'échangent des produits et des déchets) s'intègre dans un schéma d'économie circulaire.

- 4:00 PM – Break.
- 4:30 PM to 5:30 PM – Closing panel.

## CLOSING PANEL

Communicating Sustainability challenges.

ENGLISH  
French translation

AMPHI 219

*Hildred CRILL, Stockholm University.*

*Ashley PERL, Stockholm Resilience Center.*

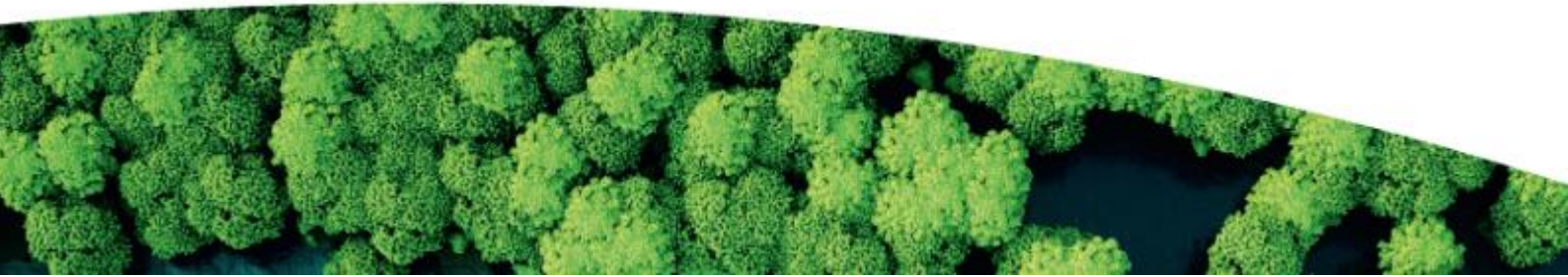
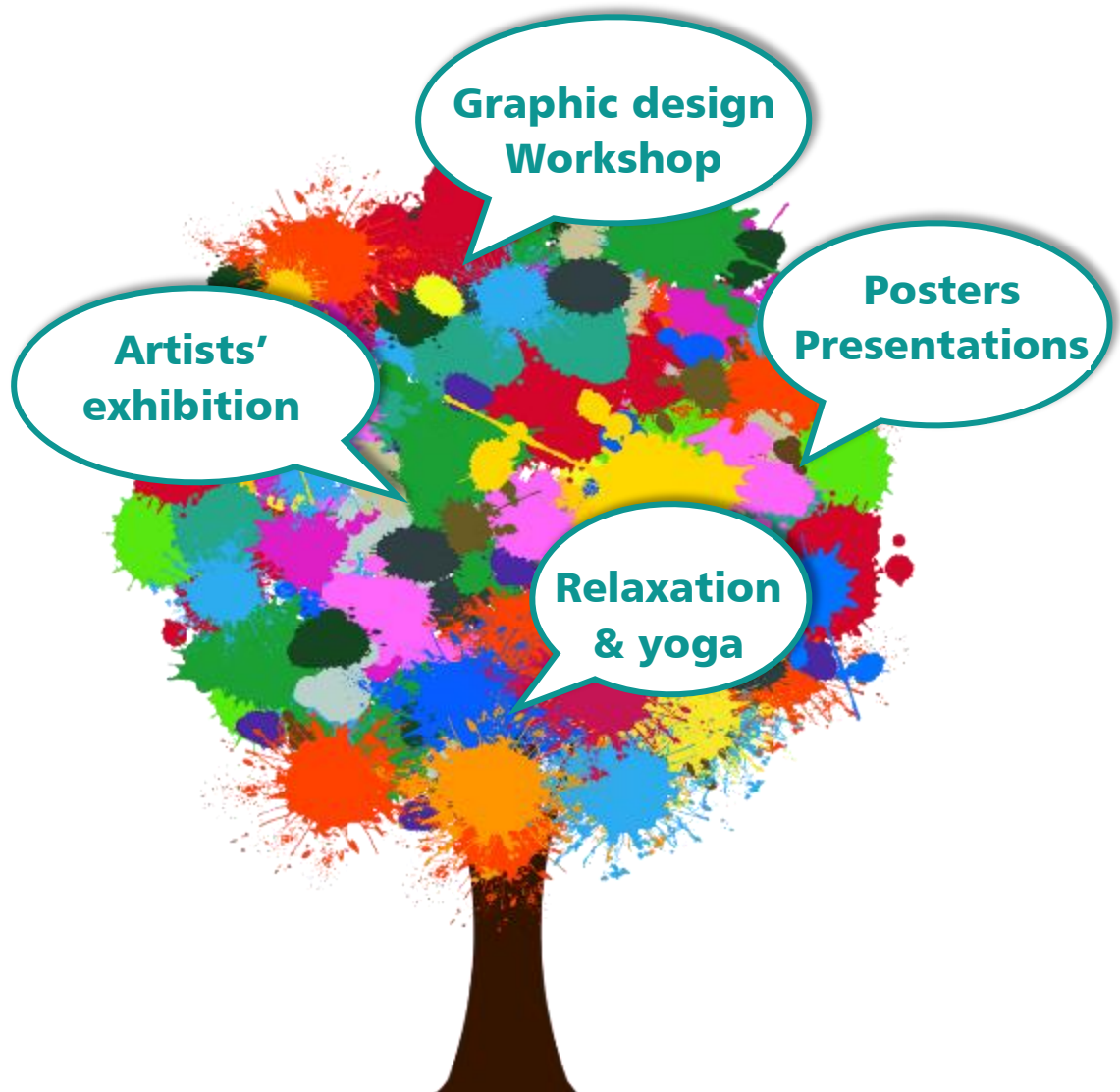
*Elise ASPORD, Université Clermont Auvergne.*

- 5:30 PM to 5:45 PM – Closing words.
- 7:00 PM to 10:30 PM – Cocktail and aperitif at the Brasserie du Jardin, 55 avenue François Mitterrand in Clermont-Fd.

... and every day, open access an exhibition

# EXPO-DISCUSSION

**ART, CULTURE & SUSTAINABILITY**



## REGISTRATION & OTHER INFOS

- Where to register ?

Registration online

<https://sustainability.sciencesconf.org/registration>

- Rates and Prices for the 3 days (lunches and dinners included)

For Researchers : 200 € net.

PhD Students : 100 € net.

Other audiences : 50 € net.

- Contacts

For any questions, please contact :

[sustainability@sciencesconf.org](mailto:sustainability@sciencesconf.org)

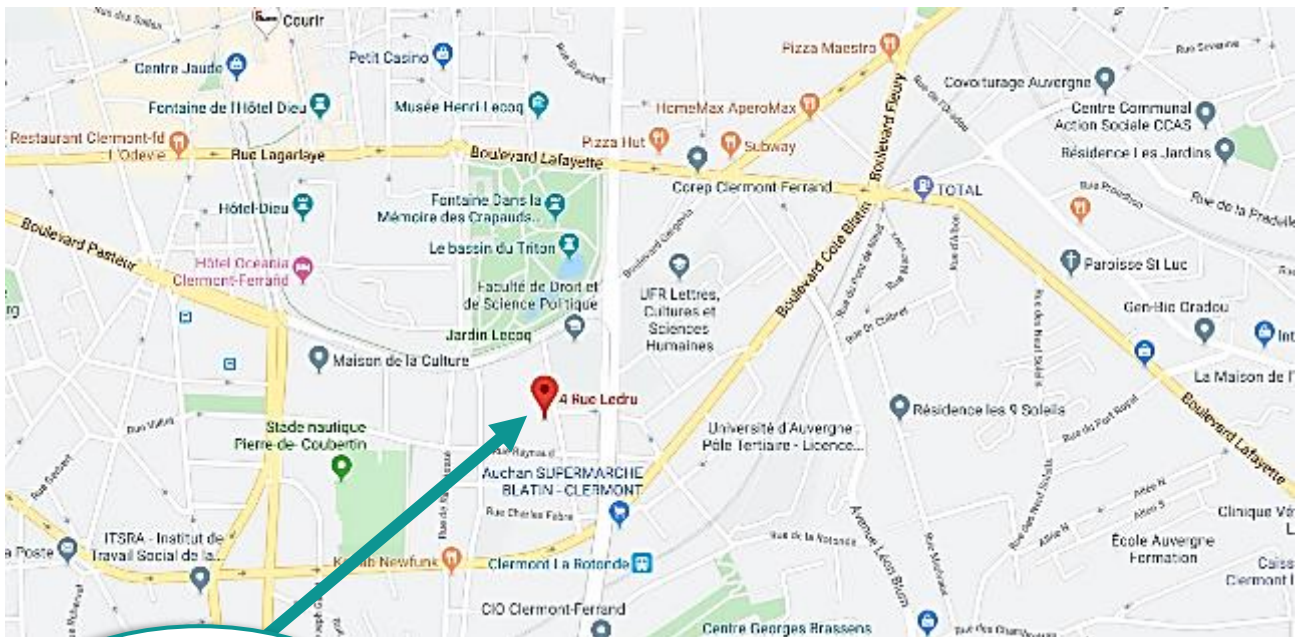
Arnaud Diemer, Erasmé

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Marie-Hélène MOINET, Plate-forme 21

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## WHERE WE ARE : SYMPOSIUM LOCATION & ACCESS MAP



Maison des  
Sciences de l'Homme  
4 rue Ledru  
63000 Clermont-Ferrand





ERASME is the Jean Monnet Excellence Center on sustainability. It is a label awarded by Europe and aimed at recognising an expertise on sustainability at the University of Clermont Auvergne. <https://erasme.uca.fr>



Plate-forme 21 is a professional network for continuous improvement towards sustainable development. Plate-forme 21 is open to any organization that wishes to conduct its activities by creating economic, social and environmental conditions to more sustainability. The NGO connects actors, projects and information, organizes round-tables and training sessions, and leads working groups. It allows everyone to anticipate change, to progress and act collectively towards greater sustainability, to expand their network and to enhance their initiatives. Based on the contributions of all, it invites everyone to make their own choices to act in a complex and constantly changing environment. <https://www.plate-forme21.fr>



Co-funded by the Erasmus+ Programme of the European Union

