

# Today!

International Zero Waste Academic Collaboration (IZAC)

Rede De Cooperação Acadêmica Lixo Zero

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#### The Dimensions of the Global Issue of Waste.

Disaster waste management, Tech trash, Pharmaceuticals, Ocean plastics, Emerging new 'NBRIC' & old & unresolvable waste issues (Nuclear), 'Love food hate waste', Criminality...

- The interrelated aquatic & atmospheric impacts of anthropogenic terrestrially generated waste is now recognised as affecting the entire global biosphere (Hodzic, Wiedinmyer, Salcedo, & Jimenez, 2012; Moore, 2008; Ryan, Moore, van Franeker, & Moloney, 2009; Thompson, 2014; Wiedinmyer, Yokelson, & Gullett, 2014).
- Globally waste issues are rising to the point of becoming a public and environmental health emergency, warranting an urgent and comprehensive response (D. Hoornweg, Bhada-Tate, & Anderson, 2012; Mavropoulos et al., 2017; Mavropoulos, Newman, & ISWA, 2015; UN-Habitat, 2010).
- "Our oceans are already the biggest dumpsite

#### 'Microplastic Fibres: The Plastics Inside Us'.

https://orbmedia.org/stories/Invisibles\_plastics



#### Waste =*s* FAILURE =*s* OPPORTUNITY

- ... is the result of *"inadequate thinking"* compounded by outmoded *"flame, flush or fling"* management approaches, which both contributes to and evidences the *"unsustainability of society"* (Seadon, 2010).
- ... is the result of the 'take-make-waste' socio-economic design setting of the modern, globalised economy (aka, the 'throwaway society') (Ellen MacArthur Foundation, 2013 from the report 'Towards a Circular Economy'; Jessen, 2003).
- ... connects to, "everything: energy, food, pollution, water, health, politics, climate, economics. Trash is nothing less than the ultimate lens of our private lives, our priorities, our failings our secrets and our hubris" (Humes, 2012 from the Book Garbology).
- "Nature is a zero waste system ... Nature recycles everything.... " (Tobiason, P -Snow & Dickenson 2002).
- International Solid Waste Association's (ISWA) vison is to work towards an "earth where no waste exists".

# Academic literature supports the view that zero waste is:

- Successful (Allen et al., 2012; Ecocycle Solutions, 2017a, 2017b; Rosa, 2018; Rosa & Chatel, 2016a, 2016b; Simon, 2015a, 2015b, 2015c; UN-Habitat, 2010; Van Vliet, 2014a, 2014b, 2014c).
- Scientific (Pietzsch, Ribeiro, & Fleith de Medeiros, 2017; SRMG Inc, 2009; Zaman, 2012, 2013, 2014, 2015, 2016; Zaman & Lehmann, 2011a, 2011b, 2013; Zaman & Swapan, 2016).
- Learning & Evolving (Pietzsch et al., 2017; Song, Li, & X, 2014; Zaman, 2015; Zero Waste Europe, 2017).
- Controversial in Challenging the Status Quo (Silva, Stocker, Mercieca, & Rosano, 2016; Zaman, 2015; Zaman & Swapan, 2016).
- Measurable [i.e. the 'Zero Waste Index' (ZWI)] (Zaman, 2013, 2014; Zaman & Swapan, 2016).
- Socially & Culturally Beneficial (Hogg & Ballinger, 2015; ILSR, 2002; S. Kathiravale & Yunus, 2008; S Kathiravale, Yunus, & Abu, 2007; Living Earth Foundation, accessed 2015; D. C. Wilson et al., 2015b).
- A Good Economic Investment (Hood & Ministry of Environment





### PROPOSED COLLABORATION PARTNERS:

The following Universities have indicated a willingness to launch the IZAC initiative and to explore collaboration around zero waste practice, teaching and research.

#### • Brazil:

- 1.The Universidade do Estado de Santa Catarina (UDESC): <u>http://www.udesc.br/international</u>
- 2. The Universidade Federal de Santa Catarina (UFSC): <u>http://en.ufsc.br</u>
- 3.The Santa Catarina Federal Institute of Education, Science and Technology (IFSC): <u>http://www.ifsc.edu.br</u>

#### 4.New Zealand:

5.The Zero Waste Academy / Massey University: <u>http://www.massey.ac.nz</u>

• International: Over time it is anticipated that this IZAC initiative will involve a range of other key individuals, organisations and international

#### Activism ↔ Education / R&D: Differences, Opportunities and Synergy.



Figure 5: An outline of proposed 'separation - yet synergy' of zero waste campaign (ZWIA) vs education/research (ZWA) initiatives.

#### Figure 2: Schematic Outline of a Proposed 'Zero Waste Academic Collaboration 'IZAC' Model



**OVERALL PROJECT OBJECTIVE:** Via a financially sustainable model, develop and disseminate innovative zero waste management practices in the city / industry / community context, through world class professional development & research, which is reflective of evolving best practices, appropriate technology & environmental sustainability.

#### **Proposed Requirements for Network Engagement in Brazil**

Adoption of the goal \ Zero Waste strategy in all partner universities;

**Goal 1** - Implement and / or expand solid waste collection with minimum separation in 3 fractions: trash, Dry Recyclable Residues and Organic Residues;

Goal 2 - Eliminate the use of disposable plastic cups in institutions;

**Goal 3** - Elimination of internal dumps in the classrooms and administrative sectors for differentiated residues for the minimum collection in 3 fractions Adoção da meta\estratégia Lixo Zero em todas universidades parceiras;







#### **Actions** for a Network

**1 - Leadership:** Mutual support in the adoption and institutional promotion of goal zero between partner universities;

**2. Demonstration**: Sharing of information and good practices in the implementation of zero-campus campus programs;

**3. Education and Research:** Develop and share information, collaboration in designing programs to integrate theory and good practices zero waste for circular economy in education and research;

**4. Networks:** Explore paths for student-university exchanges with the goal of fostering international networks that produce and disseminate science and technology on zero waste and circular economy;









#### **Actions for a Network**

**5 - Extension**: Work together to expand this international academic collaboration network including new universities and key stakeholders in other sectors, municipalities, public, private and civil society organizations;

**6 - DESIGN**: Work on the upstream (design) future of innovative green products and clean production systems to address the issue of waste at source;

**7 - Engagement**: Working with governments, industries, and community stakeholders to encourage mutual adoption and future development of "world's greatest problems" for zero-waste programs and good practices that positively impact climate change and development sustainable development







A SEMANA UDESC LIXO ZERO 2017 MARCA O LANÇAMENTO DO PROGRAMA UDESC LIXO ZERO 2022 QUE VISA TRANSFORMAR TODOS OS CAMPUS DA UDESC EM CAMPUS LIXO ZERO ATÉ 2022, COM A MÁXIMA EFICIÊNCIA NA GESTÃO INTEGRADA DE RESÍDUOS SÓLIDOS, DE FORMA A ATINGIR A META LIXO ZERO DE 90% DE DESVIO DOS RESÍDUOS SÓLIDOS DO ATERRO E OU DA INCINERAÇÃO, GERANDO EMPREGO, RENDA E GARANTINDO A RESPONSABILIDADE SOCIOAMBIENTAL DA UNIVERSIDADE



## Obrigado



#### UM MUNDO SEM LIXO É POSSÍVEL!

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Internationalization and Research: Challenges and Strategies

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30<sup>th</sup> Annual Conference