

| | |
|-------------------------|--|
| 1. Record Nr. | UNINA9910163538703321 |
| Autore | Wijk Ad van |
| Titolo | 3D printing with biomaterials : towards a sustainable and circular economy / / Ad van Wijk, Iris van Wijk |
| Pubbl/distr/stampa | IOS Press, 2015 Amsterdam, Netherlands : , : IOS Press, , 2015 ©2015 |
| ISBN | 1-61499-486-2 |
| Descrizione fisica | 1 online resource (86 pages) : color illustrations, tables |
| Disciplina | 621.988 |
| Soggetti | Three-dimensional printing Manufacturing industries - Environmental aspects Green products |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Nota di bibliografia | Includes bibliographical references and index. |
| Sommario/riassunto | Additive manufacturing or 3D printing, manufacturing a product layer by layer, offers large design freedom and faster product development cycles, as well as low startup cost of production, on-demand production and local production. In principle, any product could be made by additive manufacturing. Even food and living organic cells can be printed. We can create, design and manufacture what we want at the location we want. 3D printing will create a revolution in manufacturing, a real paradigm change. 3D printing holds the promise to manufacture with less waste and energy. We can print metals, ceramics, sand, synthetic materials such as plastics, food or living cells. However, the production of plastics is nowadays based on fossil fuels. And that's where we witness a paradigm change too. The production of these synthetic materials can be based also on biomaterials with biomass as feedstock. A wealth of new and innovative products are emerging when we combine these two paradigm changes: 3D printing and biomaterials. Moreover, the combination of 3D printing with biomaterials holds the promise to realize a truly sustainable and circular economy. |

