# BUSINESS GUIDE INDUSTRIAL UPCYCLING



FREE E-BOOK



#### Michael Rada

Founder of INDUSTRY 5.0

2016

#### What advantage would this e-book deliver to you?



- BASIC INFORMATION concerning the essence and advantages of INDUSTRIAL UPCYCLING (IU).
- QUICK ORIENTATION in the topic, basic tool to recognize the IU potential for your business (how to proceed, where to look).
- THE ABILITY TO DECIDE whether IU would deliver you the expected results, by participating on IU WORKSHOPs and/or site visits by our experts to identify the potential of IU.

#### What is INDUSTRIAL UPCYCLING?



- INDUSTRIAL UPCYCLING is a harmonized system utilizing Existing Resources with applied methodology of efficient physical and information flow.
- IU is based on WASTE PREVENTION instead of WASTE MANAGEMENT
- IU is intended for all industry players, regardless of their segment
- IU application is **not limited by the volume of free capital** for an initial investment, but a **real intention to break the habits** and processes with the changes.
- Within INDUSTRIAL UPCYCLING we prevent following waste happen:

PHYSICAL – SOCIAL – URBAN – PROCESS



# What does INDUSTRIAL UPCYCLING bring to your business?



- EFFICIENCY INCREASE in packaging management.
- TOOLS for production surplus downsizing = reduction of waste volumes.
- HIGHER LABOUR PRODUCTIVITY (including the reduction of total personnel costs).
- IMPLEMENTATION OF FINANCIAL CONTROL TOOLS for reducing costs and increasing profits (Packaging, Waste, NG production, Material utilization and other).
- IU motto "GENERATE PROFIT, NOT WASTE,

#### What else can INDUSTRIAL UPCYCLING bring?



- INCREASE OF PROFITABILITY = All IU projects are based on ZERO ROI principles which means the change must does not need to be pushed by investment, or very little one. It is of company benefit to increase profit by decreasing the cost at the same time.
- **PROFESSIONAL BLINDNESS ELIMINATION** = This significant change is connected to the image that "I or we do not waste and do everythink right". The fact is, that abolishing PROFESSIONAL BLINDNESS makes everyone see the reality.
- **SUSTAINABILITY DEVELOPMENT** = Tools to avoid the turn the conditions to original stage. To avoid REGRETION it is necessary to watch, follow and control processes, best through visualisation.
- ENVIRONMENTAL ORIENTED PUBLICITY = IU deliver real change to business environment, the positive publicity will be generated not by PR or marketing dept. but by public and employees.

#### Size of INDUSTRIAL UPCYCLING



- In contrary to other activities, the limit and size of IU is not given by volume of money a company is ready to invest, but by the pro-active approach to topics (which are by many diregarded).
- From supply chain view, IU projects can be divided into local, regional and global depending on the ability to "see the borders" of one's own business.
- IU uses its own tools and is based on a complex methodology. It is named L.E.D. = LOGISTICS EFFICIENCY DESIGN, and was designed for GSC efficiency improvement needs, to eliminate business relationship based wasting which is standard part of Supplier Buyer modern business relations on all levels.
- L.E.D. is simultaneus application of following principles:

  TRANSPARENCY PROFIT SHARING EFFICIENCY



## How, When and Where to apply INDUSTRIAL UPCYCLING



- IU can be applied in all business environments. The most significant potential is in industrial-production. We can simplify by saying "More waste means more IU potential.
- IU can be implemented into existing businesses and processes as well as into new ones. Both can integrate IU into their strategic business plans as a key sustainable development tool. It eliminates the inefficient focus on short terms gains.
- Established production sites can utilize IU much stronger by significant decreasing waste volumes and associated expenses. At the same time, IU helps minimize the waste of resources of all kinds.
- In the future, IU needs to be implemented not only in business, but also in legislation, to damaging effects on the global ecology and economy.

#### How to do it?



- To implement waste creation and prevention, we first have to understand **WHAT WASTE IS in all its forms.**
- One of the hardest obstacles is **PROFESIONAL BLINDNESS**, which struck all employees working for more than 6 month in one place on one process.
- Unless significant changes are applied on a global and political scale within one generation on the level of sustainability, there is a significant risk of a radical downgrade of economical and environmental environment for almost all Earth inhabitants.
- IU is not limited to work on production line, school education or politics, but it concern the compex industries which can be modified by changing strategies, which speak to all, from public, to business.

8

#### The 3R Waste Pyramid



- Waste management applies the methodology of the 3R Waste Pyramid
  - REDUCE- REUSE RECYCLE
- Which almost everyone has encountered.
- Unfortunatelly, latest studies show that 3R does not serve the decrease of waste volume, in contrary, it boosts the volume generated.
- It is PARADOX but in last 30 years the volume of waste is growing.
- The only difference is the fact, that waste companies, which are paid from public finances and subsidies, acquire and trade materials which can be sold more easily with higher profit.

#### 6 R = A Tool of REAL CHANGE visual



- Within IU, we have been able to define an advanced tool, which works not only for narrow group of people, but is applicable on a global scale
- Real change in application of INDUSTRIAL UPCYCLING comes from the functional tool 6 R (where second, less important part, is original 3R):
  - 1) RECOGNIZE
  - 2) **RECONSIDER**
  - 3) REALIZE
  - 4) REDUCE
  - 5) REUSE

**Generate more waste** 

6) RECYCLE

Prevet waste happen

• In contrast to circular economy principles does 6R implementation not need any impact in the basics of production systems or processes, or modification of tools and outputs.

#### RETURNS OF ZERO INVESTMENT



- It is methodology achieving **RETURNS OF ZERO INVESTMENT** (ZERO ROI), which means, there is **no** need for **capital** investment to get the results!
- The only investment is your work and time.
- Both deliver benefits, which can be evaluated economically and is measurable at the same time.
- To understand the principle better, let us share real case studies.



### Case study I.





- Our client, one of the largest producers of consumer products, was facing high cost and workspace consumption of pallet management.
- Purchasing cost reached 1,1 mil EUR/year, which means purchase of about 300.000 pallets of various types.
- At the same time client generates 500.000 pallets as wooden waste.
- Thanks to the application of INDUSTRIAL UPCYCLING and 6R principles, the purchasing volume dropped to 700K EUR/year and at the same time the volume of wooden waste was reduced by 98 %. This also significantly decreased the costs of waste management.
- The project was realized in a record time of 2 months of INDUSTRIAL UPCYCLING implementation.

### Case study II.





- Our client, one of the largest consumer electronics producers, imported part from overseas for his European factory. The parts had to be protected, due to their sensitivity, by EPS (Polystyrene) cushions. All the custions were dumped into garbage container and sent to a landfill.
- The yearly volume of POLYSTYRENE WASTE was 400 metric tons per year. The capacity of one dispatch truck was 900 kg. Waste management cost 1,6 mil EUR/year for this commodity alone.
- INDUSTRIAL UPCYCLING helped not only recognize this, but change the processes by ZERO ROI, and to reduce the cost TO ZERO.
- Additionally from cost center a profit center was established generating additional profit of 100K so as secondary purchase savings of 450K yearly.
- In total 2,1 EUR mil/year savings has been achieved with growth potential!

#### The Culture of INDUSTRIAL UPCYCLING



- IU utilizes other existing methodolofies such as **LEAN**, **GRID**, **MCS**, **CTM** etc...
- The last pages of this E-BOOK are completed with graphical and visual ouputs = clearly presenting the transformation of words into action.
- We believe that IU would be interesting for you and that you decide not only to try it, but to apply into your own environment. With this action you will become one of those who decided to BUILD A WASTELESS WORLD. A world which makes it possible, for our children and their children to play on a planet, not on a landfill.
- Your reward would be more profitable and efficiently working company and business!
- Visual evidence is a significant tool, helping you to establish regenerative sustainable process, which can be scaled and applied in a permanently growing volume.

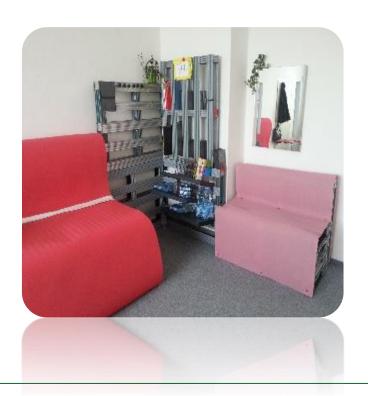
#### Visual evidence I.



#### One way air freight shipping pallets



#### Pallets based furniture



#### Visual evidence II.



#### Obsolete and NG product waste



#### **Upcycled product (25 types already)**



#### Visual evidence III.



#### One way packaging, paper bags



#### Universal paper heavy duty carry bags



#### Visual evidence VI.



#### One way cable drums



#### Multipurspose furniture



#### Founders word



Thank you for your interest for INDUSTRIAL UPCYCLING.

Let me summarize shortly the reasons, why I decided to build with IU something new and bring it to the market.

Fom early 90' my environment has been industries, business and logistics. I had the opportunity to stay in many positions (client, supplier, logistician, 3PL, 4PL, advisor, developer, designer marketing, CEO and so on) and no matter what I did, there was one common issue – WASTE and WASTING.

After almost quorter of century I decided to leave the safe harbour of employement and start business, which did not exist at all, business of WASTE PREVENTON.

I gave my Blue Ocean project clear vision — TO BUILD UP WASTELESS WORLD in meaning of world without waste and wasting in all its forms.

Same as many prospectors before me, I need tools. Because these do not exist I utilize my long business experience and start to build them up, one, by one and improve them during my work on realized projects.

#### Founders word



#### INDUSTRIAL UPCYCLING is the result.

It is a tool which makes it possible to increase efficiency of complex chains, on local, so as global scale. After many realized projects I decided, pushed by more and more clients and partners, to offer the possibility of implementing INDUSTRIAL UPCYCLING principles to all, who has to wait for my day had just 24 hours, so as yours

We break the habbits of common economics and business environment

I have established IBCSD LAB Ltd. Not just to becomme President and CEO, but to be a GUIDE and LEADER, which establish the biggest industry in the world and the only industry which does not damage, but pro-active protect the environment as legacy for generations to come.

If you decided to walk in same direction, me and permanently growing team of members and experts is ready to sopport you.

Michael Rada

## <u>info@industrial-upcyclilng.cz</u> <u>www.industrial-upcycling.cz</u>



We hope that downloading and reading of this E-BOOK is the proof of your readinness to face new Challenge. INDUSTRIAL UPCYCLING is such a Challenge.

On your way, you will not be allone. The number of people and business, which decided to do the same, grow every single day and with them, the reults become more and more visible in economical so as environmental impact.

The EARTH is slowly changing from being just a CASH CROW and global LANDFILL to Blue marble and place to live.

We are looking forward to head same direction to WASTELESS WORLD and bigger profitability.

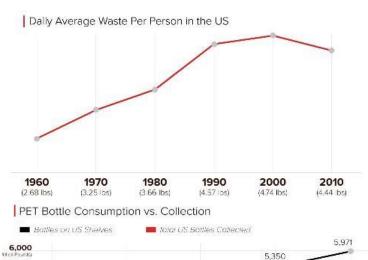
If any struggles or help needed, just contact us.

Industrial Upcycling Team

#### Few Brief Facts at the end







5,075

1,170

2005

5,000

4,000

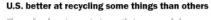
3,000

2,000 Ston Pounda

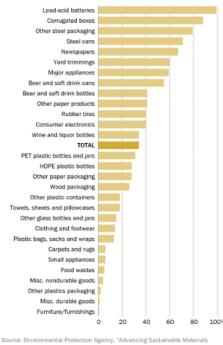
1,000

1995

2000



Share of each major wastestream that was recycled or composted in 2013



Management: Facts and Figures." June 2015.

1.797

2015

1,557

2010

#### Česko loni vyprodukovalo 27 milionů tun odpadu

27.10.2016 10:17 | PRAHA (ČTK)



Přestože se množství vyfilděného komunálního odpadu rok od roku zavšuje a Mesá množství směsného odpadu. přiblížně polovina komunálního odpadu končí na skládkách." upozomii ČSÚ Licence | Všechna práva vyhrazena. Další šíření je možně

en se souh asem autora Foto | kanvag / Shutterstock úřad. Více než 86 procent odpadu případalo na podníky.

Česko loni vyorodukovalo 26.9 milionu tun odpadu.

meziročně o 13 procent více, uvedl Český statistický

Množství komunálního odpadu loní činilo 3,3 milionu tun. V přepočtu na jednoho obyvatele to bylo 317 kilogramů. Většína odpadu pocházela z běžného svozu. Odpady z čištění ulic a z odpadkových košů tvořily dvě procenta.

Z komunálního odpadu bylo loní podle ČSÚ vytříděno 15 procent. Zhruba třetínu tvořil papír, čtvrtínu sklo a 24 procent plasty. Na kovy připadalo šest procent

Přestože se množství vytříděného komunálního odpadu rok od roku zvyšuje a klesá množství směsného odpadu, přiblížně polovina komunálního odpadu končí na skládkách," upozomil ČSÚ. Lori bylo tímto způsobem odstraněno 1,8 milionu tun odpadu. Ve spalovnách skončilo 590 tísic tun a v kompostámách 141 000 tun odpadu.

Firmy loni vyprodukovaly 23,2 mlionu tun odpadu, meziročně o 15 procent víc. "Nejvíc odpadu od ekonomických subjektů pocházelo z činnosti souvisejících s odpadními vodami, odpady a sanacemi a dále ze stavební a demoliční činností," uvedl ČSÚ. Za pozitívní trend lze označit mezíroční nárůst objemu recyklovaných odpadů o 23 procent, dodal úřad.

# YOUR'S INDUSTRIAL UPCYCLING



