



& GAMATEC^{SA}



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Milton Bradley

**Ages
6 and Up**

Innovation is
a team effort
meet your
CTO-TEAM

Suitable for all RVE's
Gemeente Amsterdam

Game instructions in
English and Spanish.
Instrucciones del juego
en inglés y español.

Small parts may be
hazardous to children
under 3 years of age.

Milton Bradley Company
Springfield, MA 01101
A Subsidiary of Hasbro, Inc.
Made in U.S.A.

Is your person
innovative?

Yes.

Does your person
work alone?

No.

I guess..

It is one of the
CTO-members

CTO - TEAM GUESS WHO?





Mobiliteit



Sociale Innovatie



eHealth



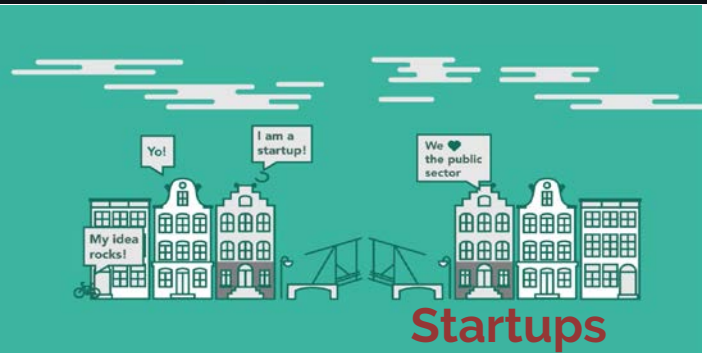
Data & Connectiviteit



Circulaire Economie



Future Government



Startups

Disruptieve technologie en sociale innovaties komen snel op ons af



Cloud: on-demand access to rich application functionality and computing power allow for exponential scalable solutions



Mobile: ubiquitous mobile internet, powerful mobile devices and apps with intuitive interfaces act as front end for many innovative solutions



Social: social media and digital platforms connect people in new and powerful ways that form the basis of new collectives and communities



Data: large volumes of rich data (structured data, sensor data, audio, video) form the lifeblood of all smart solutions



Artificial intelligence: cognitive systems combine machine learning with the ability to interact via natural language and create insight from data



Internet of things: physical objects equipped with sensors and connectivity transform into smart objects and generate a plethora of data



Robotics and drones: the use of robots and drones replace human labor on a large scale



3D printing: additive manufacturing allows for efficient production of unique products where and when they are needed



Co-creation: an initiative that brings together parties to jointly create a mutual valued outcome. In the context of smart cities, these are (communities of) citizens, private companies, knowledge institutes and public organizations that form an ecosystem to solve societal problems in a creative way.



Crowd sourcing: the process of obtaining needed services, ideas, or content by soliciting contributions from a large group of people, and especially from an online community, rather than from traditional employees or suppliers.



Sharing economy: using information technology as an enabler to bring together supply and demand in new ways. Use digital platforms to share and reuse excess capacity in a variety of goods and services.



Gamification: the use of game thinking and game design elements (competition, levels, leaderboards, badges, etc.) in non-game contexts. The objective of gamification is to stimulate people to change their behavior. In a desired way.



Self organization: a process where overall order and coordination arises out of the local interactions between people in an initially disordered system. It is spontaneous and not necessarily controlled by any auxiliary agent. The resulting organization is wholly distributed and typically robust.



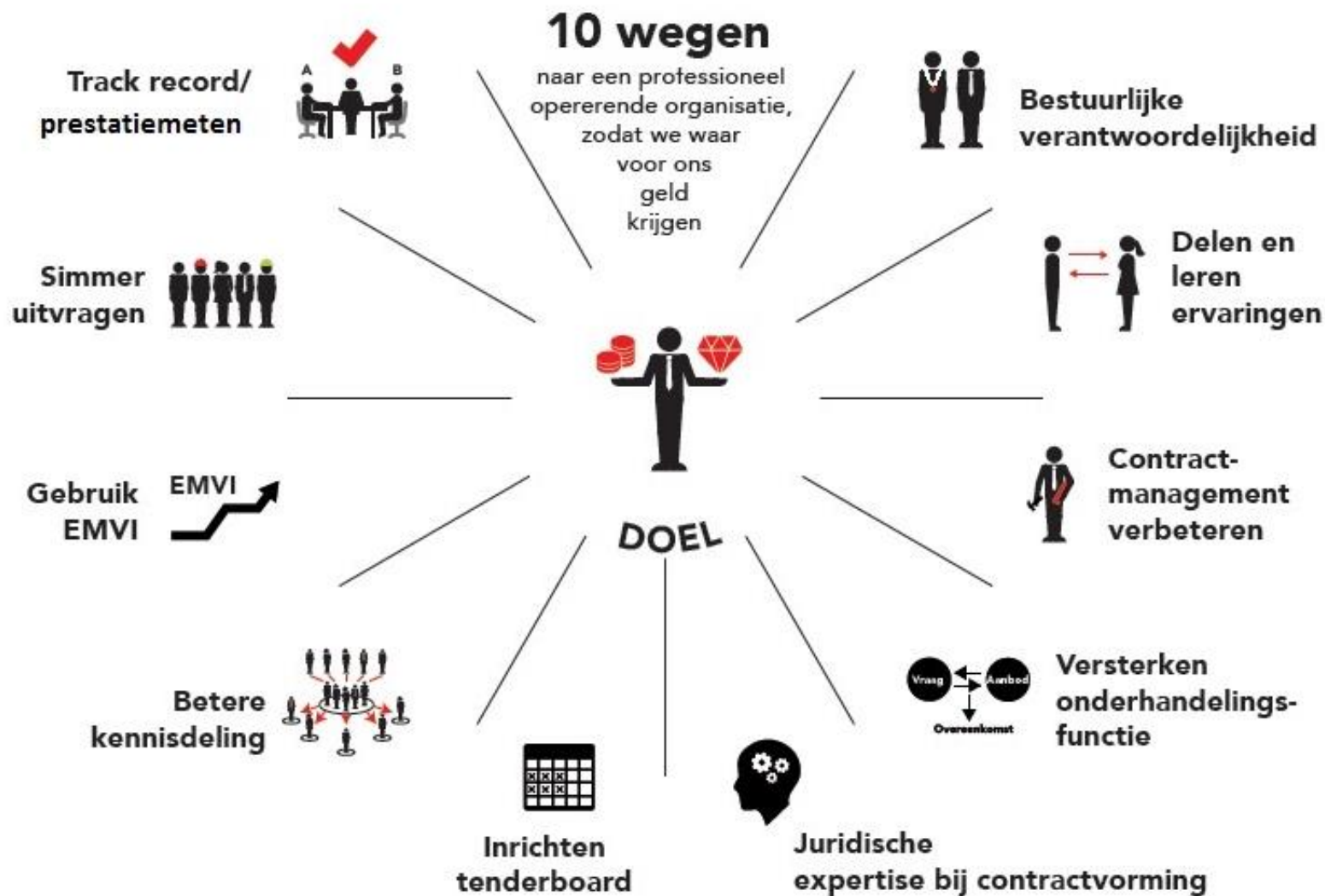
Traditional and digital infrastructure

Technological innovations

Social innovations



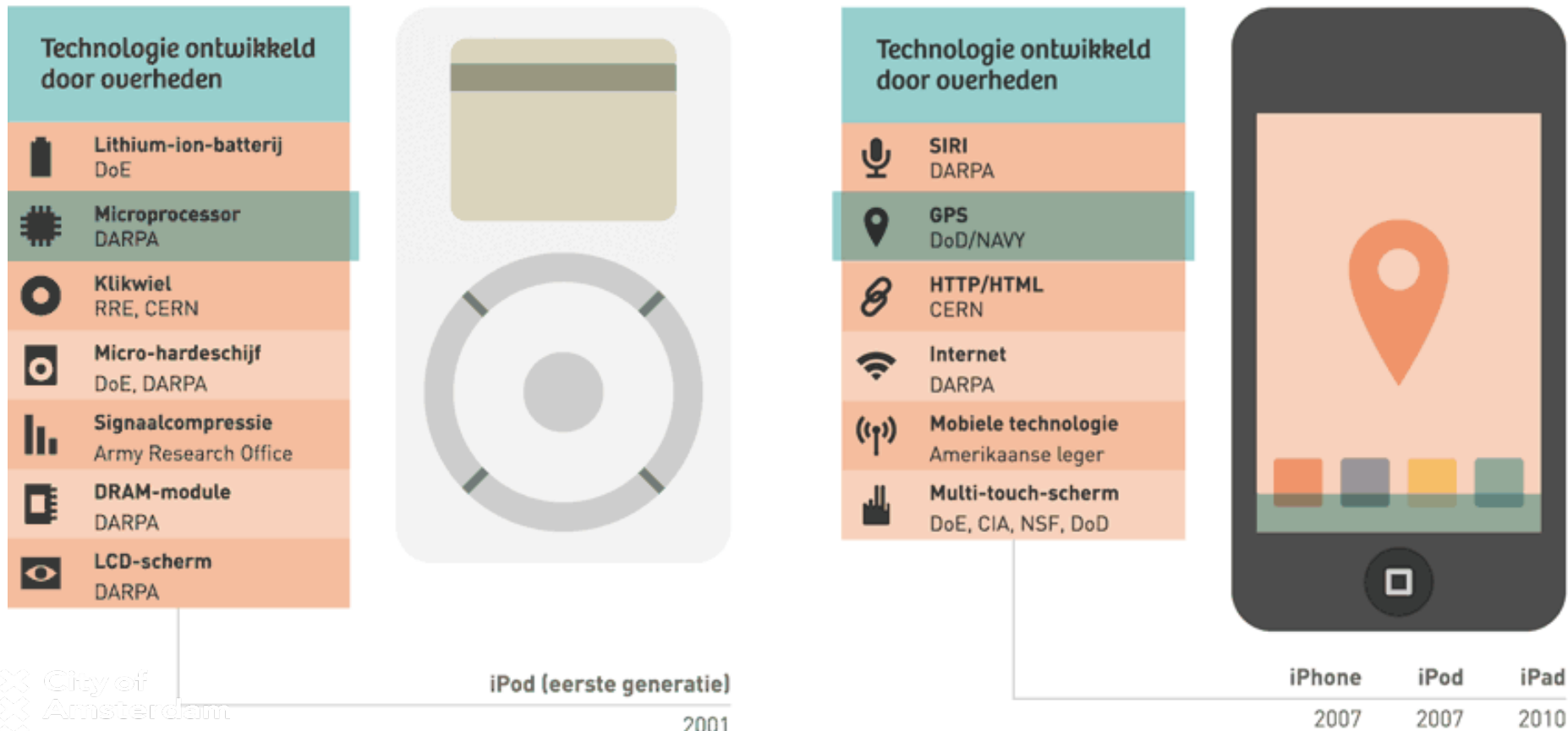
Human and social capital



Samenvoeging leidt tot: Innovatiegericht Inkopen?



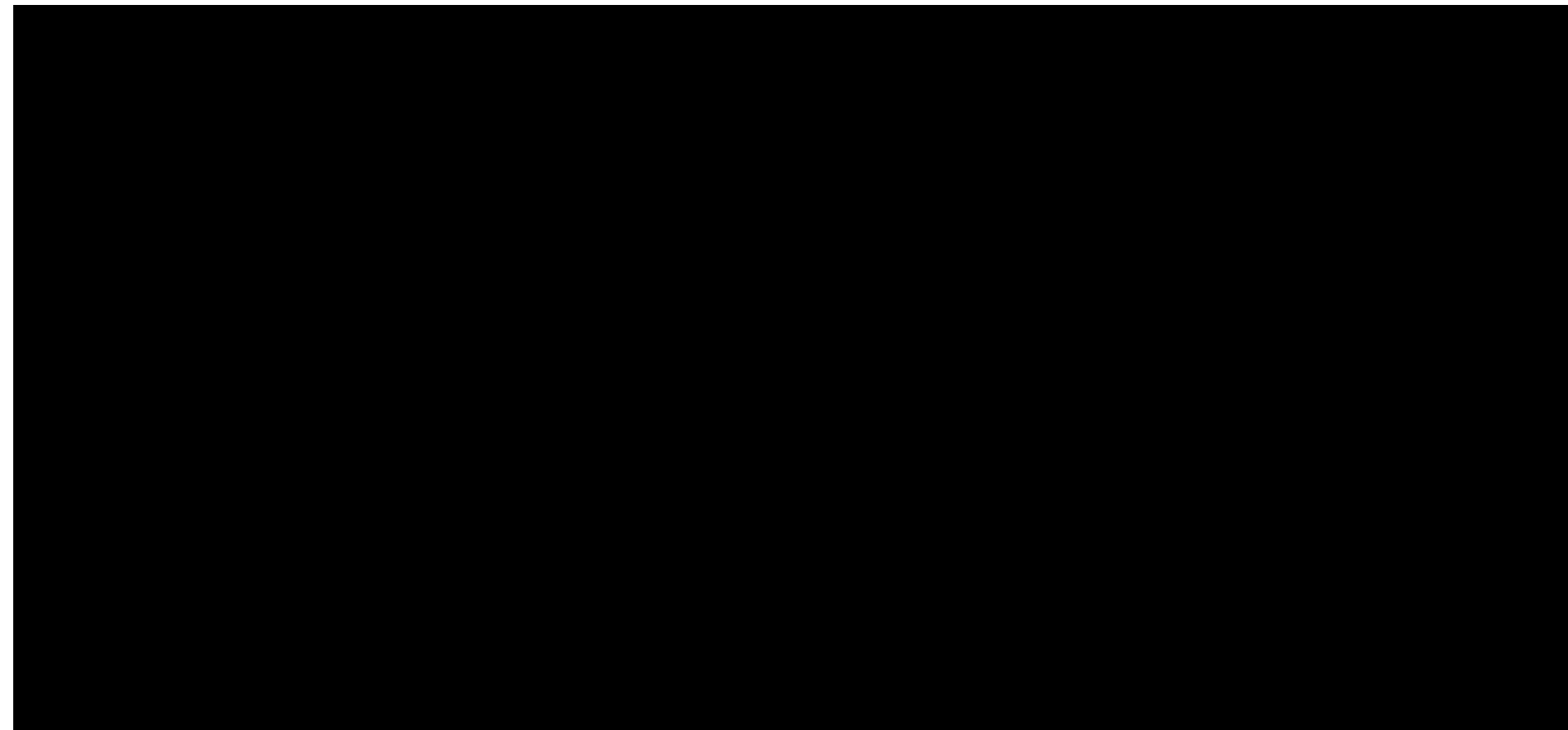
Overheid als innovator?



Startup in Residence

Het Inkoop Experiment





Wat is Startup in Residence?



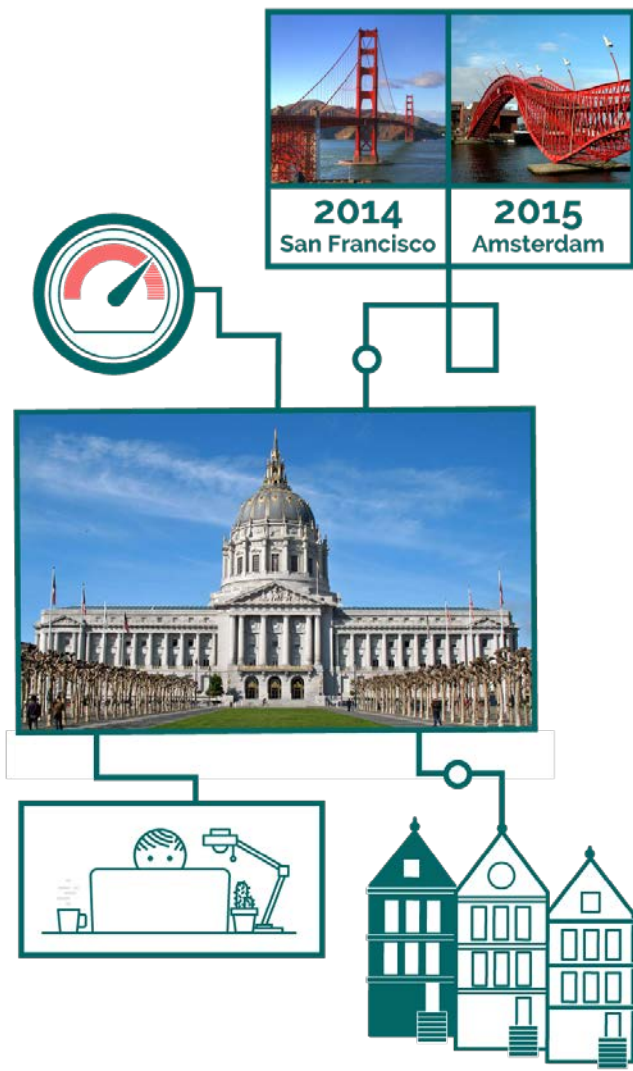
De gemeente Amsterdam heeft internationale en Nederlandse startups uitgenodigd om vooraf gedefinieerde maatschappelijke vraagstukken op te lossen binnen verschillende thema's:

- Urban Mobility
- Vibrant City
- Circular Economy
- Healthy City.



Aanleiding

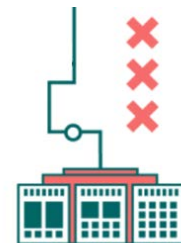
- **Innovatiegericht inkopen**
- **Vernieuwende manier van inkopen**
- Startup Ecosysteem stimuleren
- Publiek/Private samenwerking/ co-creatie
- Innovatieve oplossingen voor maatschappelijke vraagstukken
- San Francisco: 'Entrepreneurship in Residence'



Waarom in Amsterdam ?



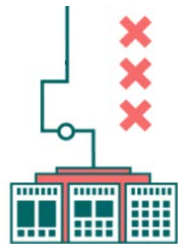
- Gemeente **koopt voor 1,8 miljard in** → **IMPACT!**
- Gemeente heeft **behoefte aan slimme oplossingen** voor stedelijke uitdagingen,
- Gemeente **ontwikkelt samen met partners** vernieuwende oplossingen voor maatschappelijke vraagstukken. Dit vraagt om een vernieuwende partnership benadering en inkooprelatie
- Start-ups en sociale ondernemers, zijn meestal **innovatieve ondernemers.**



Aanbestedingsproces

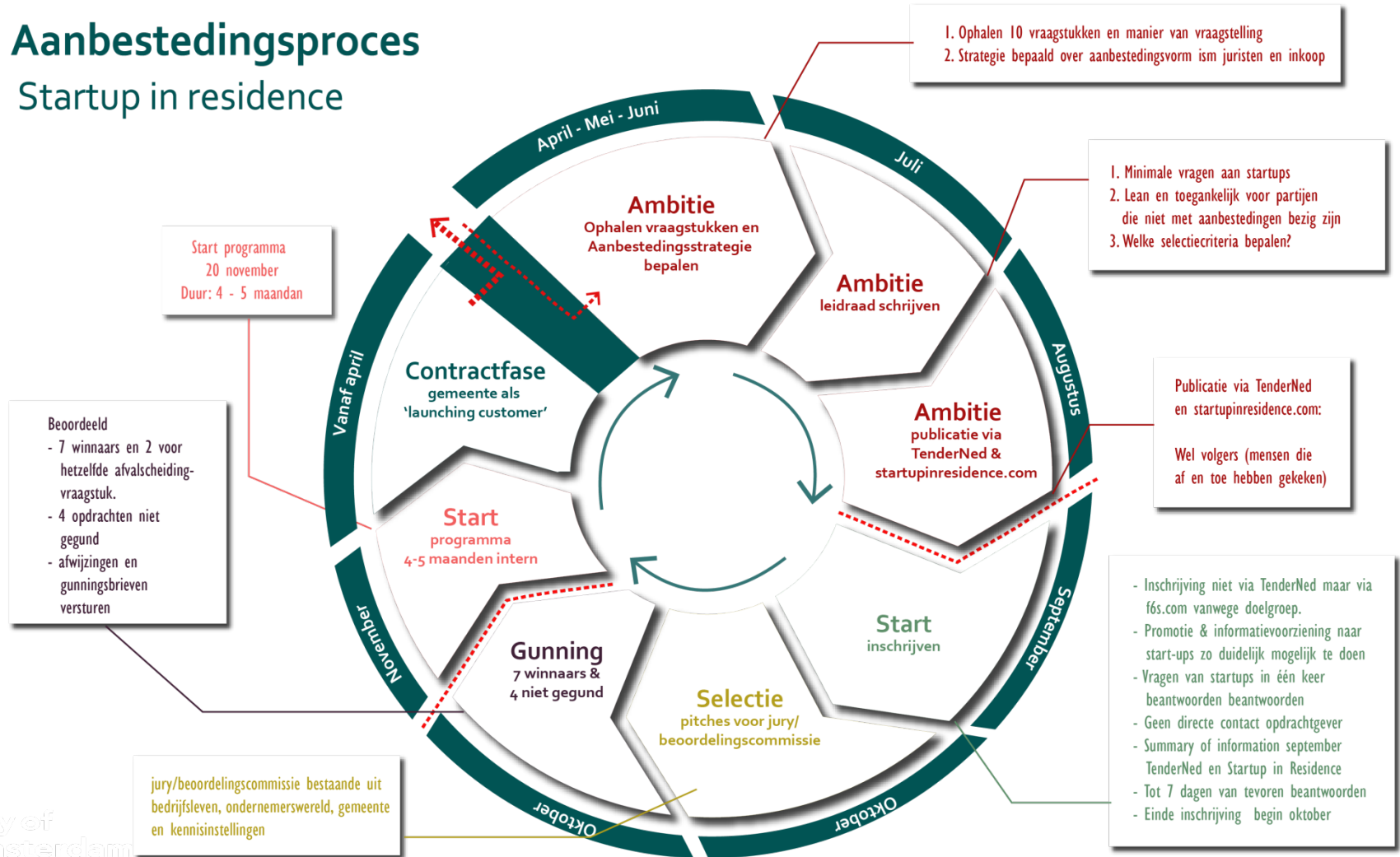


- Europese aanbesteding
- Lean leidraad, begrijpelijk voor doelgroep: Startups
- Vraag: Innovatieve oplossingen, nog niet gedefinieerd
- Aanmeldingen via eigen kanaal: startupinresidence.com
- Vooraf vastgestelde selectie en gunningcriteria waaronder: schaalbaarheid, herhaalbaarheid, visie en implementatie
- Opdracht = het Startup in Residence Programma
- Met Optie: *"If the partnership should produce a solution to the respective social issue, the City of Amsterdam may decide to purchase the solution privately from the Start-up, or to otherwise invest in production of the solution developed."*



Aanbestedingsproces

Startup in residence



Wat bieden we Startups?



- 5 maanden
- Intensief trainingsprogramma
- Professionele mentoren
- Toegang tot Startup Events
- Mogelijkheid van Pilots/testen in de stad
- Netwerk van de gemeente en alle partners
- Mogelijk een eerste klant



Wat hebben wij er aan?



- Snelle en innovatieve oplossingen voor gemeente én inwoners
- Potentie: inhoud bij gemeente en snelheid startups
- Leren startup methodieken en hoe toe te passen binnen gemeente



7 Startups – 6 Issues

Startup	Gemeente	Investering/Samenwerking
Wander	Stad in Balans Pilot: Plantagebuurt	Samenwerkingsovereenkomst twv €50.000
MijnBuur	Stadsdeel Oost Pilot: Wenckebachweg + nog nader te bepalen locatie	Samenwerkingsovereenkomst twv €30.000 Politie zal de investering van de gemeente verdubbelen
City Makers	V&OR Pilot: Fietsdepot	Gemeente treedt op als eerste klant (€27.000)
RecyQ	R&D Pilot: Stadsdeel Zuidoost	Samenwerkingsovereenkomst twv €10.000
Gamatec	Pilot: Jan Evertsenstraat en Jan van Galenstraat (80m2)	Samenwerking met Microsoft om de business case te maken

Lessons Learned?

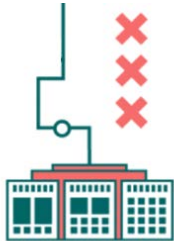
- Meer betrokkenheid opdrachtgevers
- Trainingsprogramma voor ambtenaren
- Ontwikkelbudget voor startups
- Betere structuur & mentorsysteem
- Meer workshops en training over de gemeentelijke organisatie





Feedback startups:

'We vinden het geweldig dat dit programma niet alleen gaat over het aantrekken van investeerders. Het gaat om bijdragen aan de gemeente en het creëren van sociale waarde.'



We challenge you to innovate Amsterdam



The City of Amsterdam invites Dutch and international startups to devise innovative solutions to social issues related to four themes: *Urban Mobility, Vibrant City, Circular Economy and Healthy City.*

www.startupinresidence.com

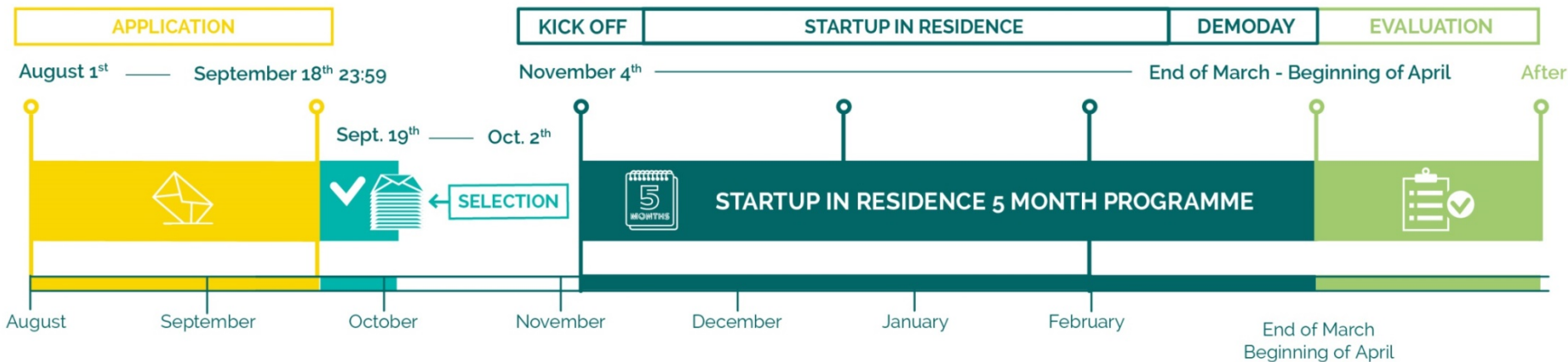


@startupinres

Startup in Residence 2.0

Startup in Residence 2.0

2016 - 2017





Startup in Residence

Innovative collaboration between governments and startups



Amsterdam



The Hague



Gelderland



Eindhoven

Vragen?



GAMATEC^{SA}

Zero Waste Solutions



Gamatec has proprietary pyrolysis technologies to convert green and organic waste into:
Biochar + Energy

Gamatec Zero Waste Solution





traps CO2 sustainably



fire resistant without
toxic substances



humidity regulation



high durability



reduces surrounding
NOx and NO2



insulation and temperature
regulation



reduces carbon footprint
of building materials



The cement industry is the second most polluting industry after energy production.

If all concrete production were composed of 1% biochar content it can be calculated that roughly 0.5 Gt of CO2 would be trapped, corresponding to about 25% of the total CO2 emissions generated by the cement industry.

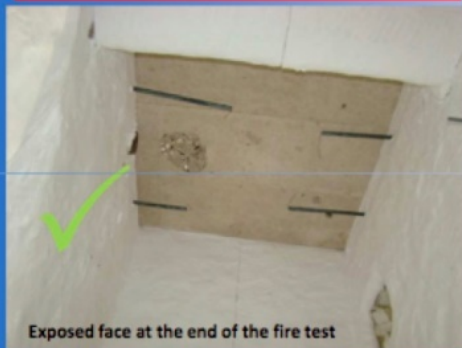
All tests on Gamatec Biochar Cement have been carried out by an ISO/CEI 17025 laboratory (IMM SA) according to relevant Swiss / European standards with the exception of the NOx absorption test and fire resistance test carried out by accredited European laboratories (Tera Environment and EFECTIS Nederland respectively) according to ad-hoc developed procedures (for NOx adsorption) and testing recommendations/fire curves.



- RABT ZTB (RAILWAYS) CURVE
- RESTRAINT TO THERMAL EXPANSION
- LARGER VOLUME (1.2 X 1.2 X 0.3 m³)
- REINFORCEMENT (ø 16 mm, S = 150 mm, C = 60 mm)

• C30/37

• Air: 11%



Exposed face at the end of the fire test



After 24 hr. from the end of the fire test

Concrete without pp fibers (courtesy of EFECTIS Netherlands)

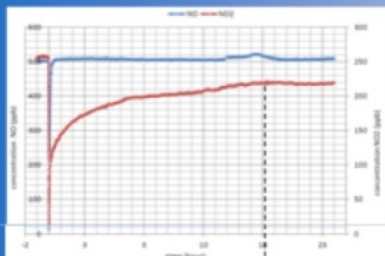


PARAMETER	VALUE/RESULT
Age (days)	44
Moisture content (%)	<3%
T @ 60 mm depth @ 45 minutes (°C)	200
Maximum spalling depth (mm)	20



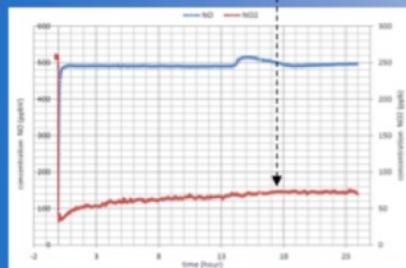
NO_x ADSORPTION TEST

Without activated carbon



	Average upstream concentration	Average downstream concentration
NO ₂ (ppb)*	256	219
NO (ppb)	500	509

With activated carbon



	Average upstream concentration	Average downstream concentration
NO ₂ (ppb)*	258	73
NO (ppb)	510	496

*1ppb NO₂ = 1.88 µg/m³



New Developments

Geopolymer + Biochar

GAMATEC^{SA} &

