

A K E R S



UNLOCKING INNOVATION

A systems approach to

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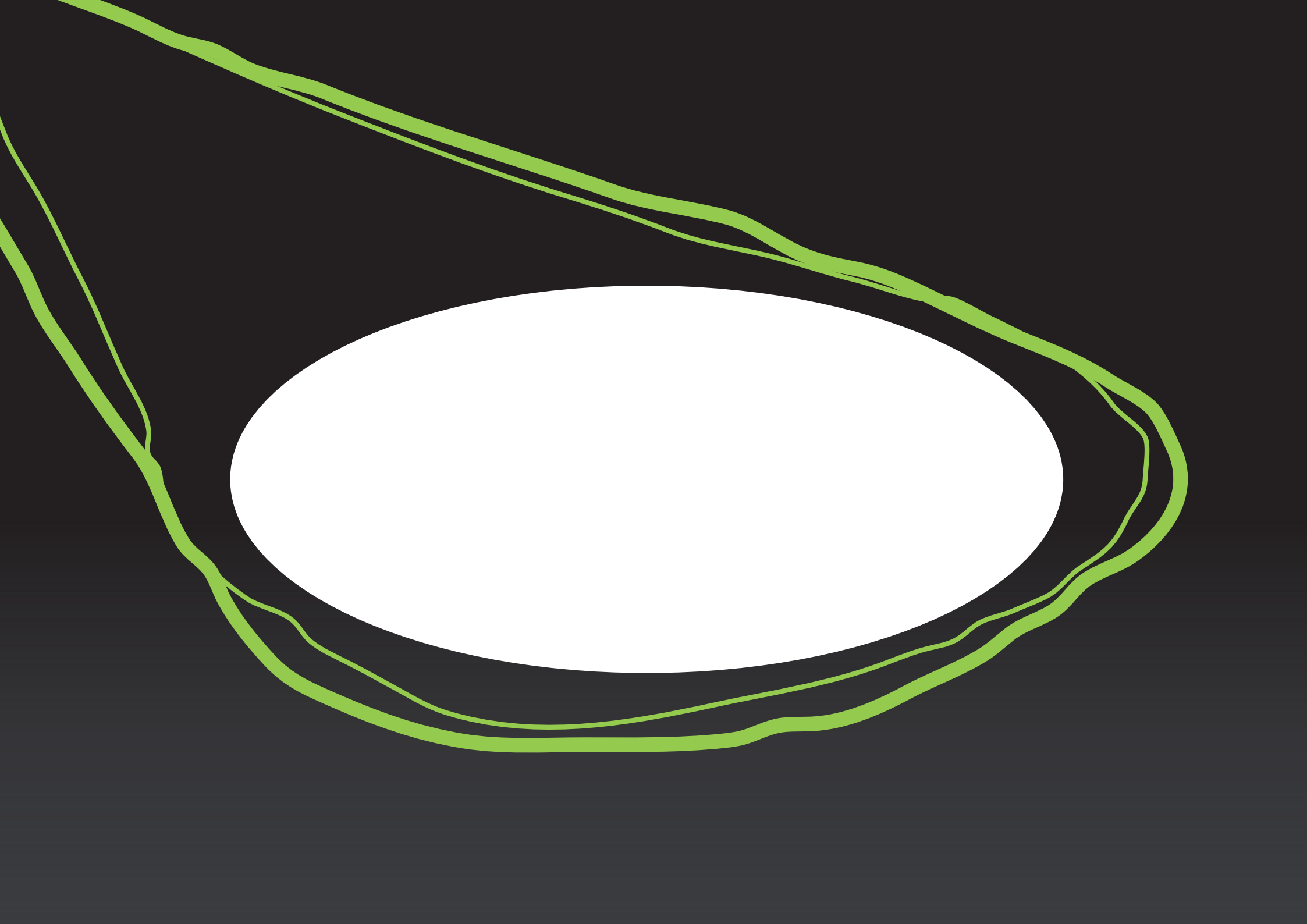
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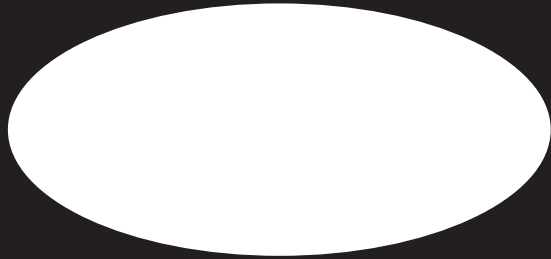
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THE CHALLENGE

Whether it is about climate change, human health or sustainable industries, we are in the decisive decade to make progress. Deep tech chemistry can transform the way we live today and help secure a cleaner and better future.

Z[l [æf c [dj]_c [bd[i "1 [djk h[i "Ywdej" dZ' i k_jVXb^ \W_bj_ [i " je^YWro^ekj] ^ [h[i [WY^ehi YWf #f "e\j^ [i [j [Y^deæ] _ [i \$



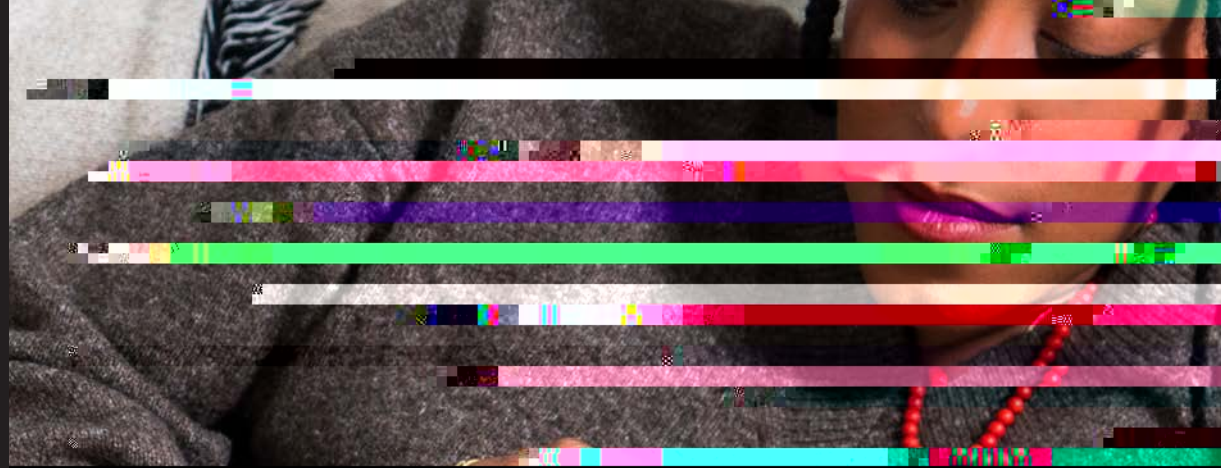


Convenience doesn't have to cost the world

Plastic pollution has become one of the biggest threats to our environment and our future.

Facebook

Facebook



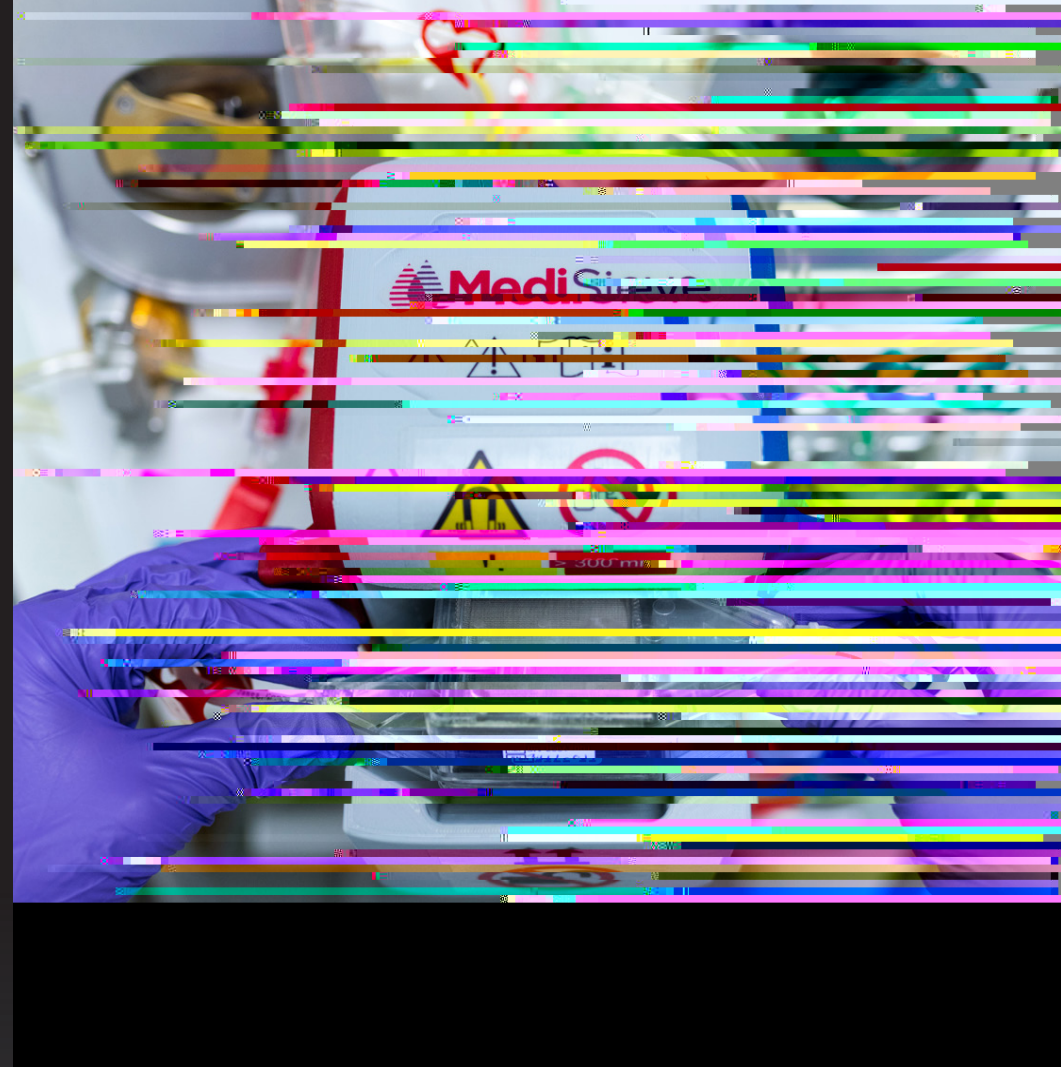


Eliminate. Isolate. Cure.

MediSieve's Magnetic Blood Filtration technology aims to revolutionise medical treatments, especially for diseases where conventional therapies fall short.

J ^i j [Y^delæ] oVZZH i i [i j^ [Yhj_YWBY^Wd] [e\h[c el_d] i f [Y_Y
Yec fed [dji \hec j^ [XtæZi jh Wc j^Vj^Ykhh [dj^c [j^æZi YWddej
[\Yj] [h j W] [j \$ ^ i i k [i f Wj_Yk W h f h e d e k d Y [Z ^ d 7 Z [de
7i i eY_Wy [Z^L_hki 177LZ^= [d [j^ [hW [i "m^ [h [kf^je, &fi e\fej [dj_W
fWj [dji " WXekj. . &"&&f [ef h " W [d [b] Xh ehWj h Wj c [dj j^Wj^c Wb

C [Z^ [i [e\ [h Wf h Y i [i e k j _ e d ^ e h j h Wj _ d] i W h e k i X t æ Z X e h d ["
Y e d Z _ j _ e d i X o Z h [Y j h c h [c e l _ d] ^ W c \ k b i k X i j W d Y [i \ h e c j ^ ["
X t æ Z i j h W c \$ j i W X b j o j e j W h [j W m Z [h W d] [e \ i k X i j W d Y [i ^ c W d [i j W
f e m [h k b j e e b d ^ c [Z Y _ d [f h e c _ i _ d] X [j j [h f W j [d j ^ e k j Y e c [i " h [Z k Y _ d] "
^ [W j ^ _ d [g k j [i " W d Z ^ f W _ d] j ^ [m W b ^ e h c e h [f [h e d W d i [Z W d Z ^ \ Y j _ d] "





Making batteries faster

Electric transport is key to a low-Carbon economy, but range anxiety, long charging times and battery degradation remain issues. Gaussion's fast-charge technology - MagLiB™ - is changing the EV charging game.

7i "gk_Ya^Y^W] _d] j[Y^dele] o_c f hel [i "XWj] [ho^f [hlec WdY["Xo"
kj_bi_d] "Wd[nj[hdWc W_d[j_Y" [b^Zkhd] Y^W] ["WdZ^Z_i Y^W] ["YoYb_i \$
7ZZ_j_edWb"j^["c W_d[j_Y" [b^h^ZkY[i "Y[bZ[j[heWj_ed"fhed] _d] "
XWj] [ho^b] \$C W_B8 "YWd^Yec f_b^c [dj "Wdo^XWj] [ho^WdZ^c f hel [i "
W\ehZVX_bjo" _dYh[W [i "XWj] [ho^Yedl [d_l_dY["WdZ^h^ZkY[i "c X[ZZ[Z"



WHAT IS THE SYSTEM TELLING US?

REGIONAL INFLUENCES

MINDSETS AND NARRATIVES

Postcode
Lottery

WHAT IS THE SYSTEM TELLING US?

Development of lab space requires investment – and we tend to see significantly less in space that is suitable for deep tech chemistry ventures.

J^i "i c ei j b Z h l [d X o W b W a e \ 1 W k [Y W [\$ 9 ^ [c i j h o b W X i " W W [n f [d i i [j e X e j ^ X k b Z W d Z e f [h W [\$ J ^ i " i W h i k b e \ " i f [Y _ Y W d Z Y e c f b n i f W W [h g k h c [d j i i i k Y ^ W c e h " h e X k i j W h ^ W d Z b d] h g k h c [d j i " e h ^] ^ [h i f [Y Z m j b W X " W W [W Z W ^] ^ Y e i j e \ c W y [h W b " W d Z j ^ [d [Z e h ^] ^ # f [Y "

J^i 1 W k [Y W [" i k h j ^ [h k d i k f f e h j [Z X o W b W a e \ h e X k i j "

W f b [Z c [W d i j ^ [h " i b j j b [i Z [d Y [e \ W Y h j Y W b c W i e \ Z [c W d Z e h Y ^ [c i j h o b W X i f W W [\$ D e Z [j W d Z c W f f _ d] e \

i f [Y _ Y W y _ e d Z i Y k h [d j b 1 i X b e h Y ^ [c i j h o b W X i \$

j e Y ^ W d [i W e k d Z] [d [h W k d Z [h j W d Z _ d] e \ d [[Z i " \ k d Z _ d] " W Z [g k W y [f e b Y _ i " W d Z _ d i [i j e h Y e d Z [d Y [\$

: [I [æfc [dj]e\Wí fW[h[gk_h[i _dl [i jc [dj] WdZ “we tend to see significantly less investment go into developing space suitable for deep tech chemistry ventures

lack of value case \$9^ [c _ljh\Wí W[[nf [di _l[”





DYNAMIC 3: CHEMISTRY SPECIFIC REQUIREMENTS

The application of deep tech chemistry is diverse

Y^[c i_jh'Wk'fW["i j^h[\eh['je'h]jhe j`ed'WYW[#Xo#
YW['XW i "Wq i i '\ Y[dj 'WZ'c eh['nf[di i["c [j^eZ"
\ehXe j^`ef[hWyehi 'WZ'ki [h \$

J^i 'f[hY[fj_ed`e\1 Wk_bjoc [Wdi **there is no
obvious critical mass of ventures with the 'same'
chemistry lab requirements**

X['q i i " [n_Xq 'WZ'kdi k_jVXq \eh'e j^h[h j[dWdji `edY['W

**less lab space has chemistry designed in
from the start and in many instances is not developed
at all**



DYNAMIC 4: STRATEGIC NARRATIVES

the underpinning nature of the deep tech technology renders chemistry invisible in the final product or solution

inability to make the value case for deep tech chemistry technologies

limited government intervention in the form of supportive policies and incentives to encourage investment into chemistry lab space





DYNAMIC 5: THE POSTCODE LOTTERY

For access to chemistry labs, it really matters where you are.

J ^ ['] [e] h W ^ _ Y W b e Y W j _ e d ^ e \ W Z [[f ' j] [Y ^ Y ^ [c _ i j h o 1 [d j k h] ^ Y W d [j ^ [h W c f b \ o ^ e h [W [' j ^ [' [\ \ Y j i " e \ j ^ [' Z o d W c _ Y i " m [" ^ W [" e k j b d [Z ' i e ^ \ W h W d Z " ^ W ^ W Z _ h [Y j " c f W Y j " e d j ^ [^ W W W X b j o ^ e \ d l [i j c [d j " W W Y [i i ' j e j W d j " W d Z ^ W \ e h Z W X b j o ^ e \ W X i f W Y [\$

L [d j k h] i ^ e Y W j [Z " d ^ W d [i j W X b i ^ [Z ' i Y [d j _ Y Y b i j [h " ' i k Y ^ ^ W j ^ [" = e b Z [d " J h W d] b ' 1 B e d Z e d " " E n ^ e h Z " 9 W c X h Z] [Z " ^ W h [" d ^ W c k Y ^ ^ c e h [^ W e k h W X b [' d l _ h e d c [d j ^ e h i f _ d d _ d] " e k j \$

More investment flows here and there's a larger talent pool

e h k d l [h j [i \$ > e m [i [h " ^ i ^ Y e c [i ^ W Y W Y e i j " ' j e 1 [d j k h] i " Z [i [e f [h ^ W d Z j ^ [' h]] _ e d " j i [b \$

Waiting lists are lengthy, cost per square foot is high and well-connected space is limited

? d " 9 W c X h Z] [" j ^ [h ^ W h [^ Y ^ W d] [i ^ W e k d Z ^ W W W X b j o ^ e \ m W Y [h \$ 7 i ^ Y b i j [h '] h e m " W d Z Z [c W d Z ^ e h "

In areas with less established clusters and supporting infrastructure, there is a more uneven spread of lab space

\$ B W X i f W Y [^ c W b X [^ Y ^ [W f [h ^ X k j j ^ [' j h V Z [# e \ \ e h i [d j k h] i " i b i i ^ f e j [d j _ W \ e h " h M _ d] i _ j d _ Y W d j _ d l [i j c [d j " W i c W d h j W d j " f e e b ^ W d Z i j b j ^ i i f W Y [" i k d b a [b j e X [' Z [i _ j d [Z " m j ^ ^ Y ^ [c _ i j h o " d ^ c _ d Z ^ e c j ^ [' i j W j \$

Geography must be considered in any intervention \$ 7 ' K A # m Z [" e d [# _ p [" j i ^ W b W f h e V W ^ ^ m b b d e j ^ c W b [j ^ [^ Y ^ W d] [' h g k _ h Z j e ^ W Z h [i i j ^ [' [\ \ Y j i " e \ h [] _ e d W b j o \$



We have identified eight 'Windows of Opportunity' across the chemistry lab system which have the potential to supercharge the

WHAT NEXT?

We are launching the **More ChemLabs** initiative to catalyse system level change and address the shortage of chemistry labs for startups.

M["m_bq VZ "Wd[jmeha"e\Y^Wd] ["W [dji "Vrec "1Wheki "i [Yjehi " je"i [_p["j^["m_dZemi "e\effehkdjo"WdZ"Z[I [_of "Wfehj"ebe"e\

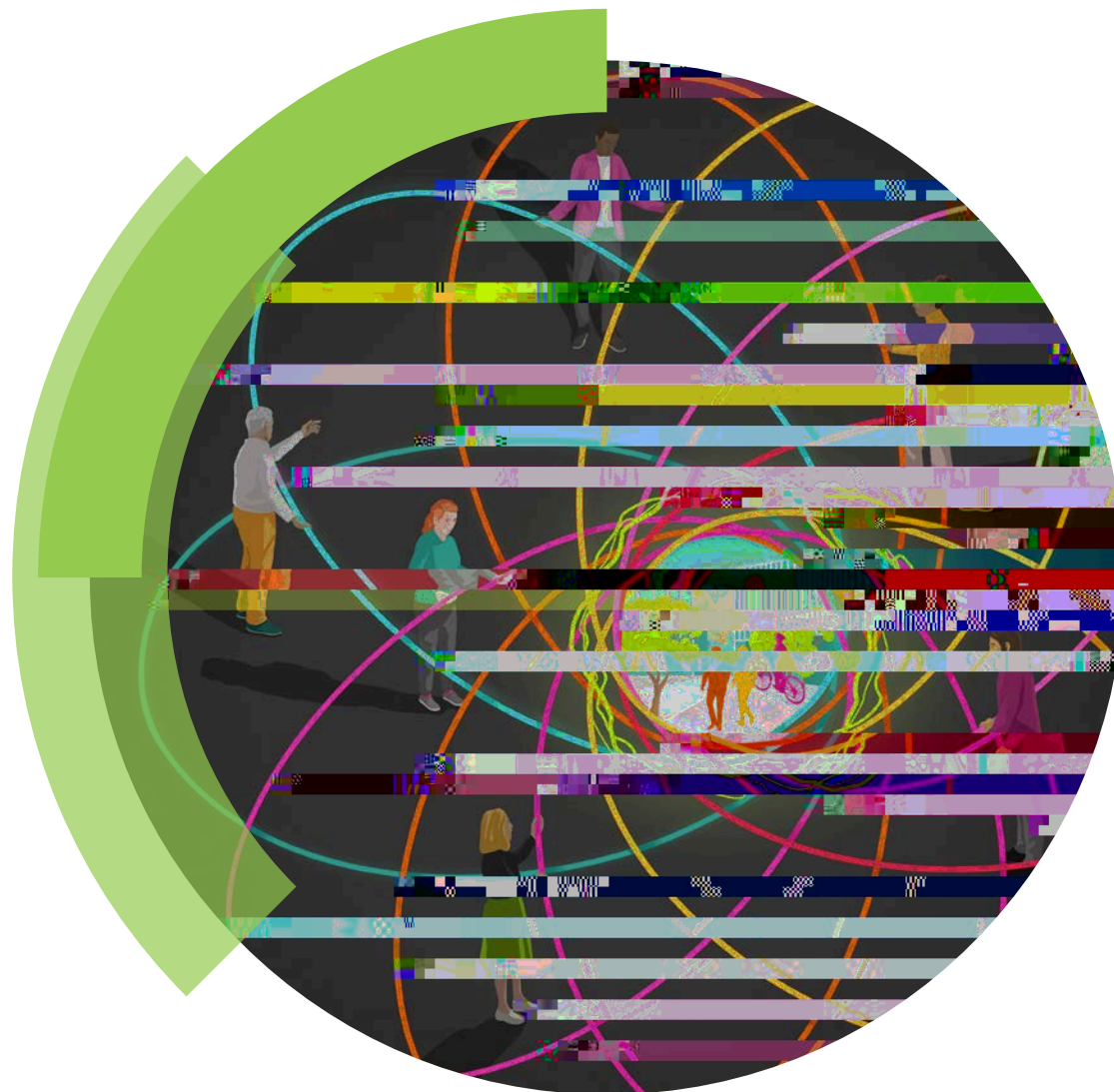
M["d[[Z"f [efbq "m^e"Wf["ddel Wj_d] "dj^["Z[bl [h"e\Wk"i fWV[" j^Wj"mehai "ehZ[[f"j[Y^Y^["c _j]h"m^e"Wf["WZ[eYWj_d] "eh"

_dl eb["i ^Whd] "jeh[i "e\Y^Wd] ["Xk_b_d] "WreXki j["I_Z[dY[" XW["WdZ"Z[I [_of_d] "if[Y_ Y"i etkj_edi \$

Is this you?

<eh_d\ehc Wj_ed"ed^em"je" [j _dl eb[Z"

visit: rsc.li/morechemlabs





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I Y^eebe\1 oi j[c `9^Wd] [`"

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9tkij[h `17H9Z`"

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