

SPRU Working Paper Series

SPRU Working Paper Series 2021-06 (November 2021)

“Wheel of Logics”: Towards conceptualising stability of regimes and transformations in the Global South

Barbara Glaser

Energy Policy

Sustainable
Development

Science and
Technology
Policy

Innovation
and Project
Management

Economics of
Innovation

!!!

!!

!

\$

:+3(4+ # \$ & 5(2(\$ % & "" 0)%4 & \$(# ,

1



@73(48-7,(\$

#

!"#\$%&'(\$()""#2(\$+%&\$<%+,#%+3(4+'#&%+#'\$&52+#/) "0(3<%&\$()"" ,#%+'<2\$("3#0%)4#&2(3"4+"

&"=#&/(\$)%<\$("('+=#5+*&A(\$:12#&"=0#4?,#QRRST#B++2UVWV"0'/*(22("3#&"=#C%<00+% ,#

UVQ,X@)>+A+%\$*+#")\$()"#)0\$&5(2(\$.#)0#%+3(%#0+%\$)#&'#79:#*+%+&0\$&%5++"#

'/%<\$("('+=#&"=#0)<"=#\$)#52+4&\$(/#\$)#=#0(#+)"\$+F\$'#)0#\$\$%&'(\$()""\$("##2)5&2#

7)<\$*#BY+%5)"3#+\$#&26,#UVQVT#W<%2)"3,#UVQXT#K(+

'\$%</\$<%\$*##)?+%&\$()"#)0#\$*+##%+364)\$*#\$&5(2(\$.#&=#/*&13\$*('#?&?+\$%##/)"!/?\$#\$
)0# ("(\$(\$<\$()"&2# 2)3(##)5(2('+=#&=# =+A+2)?#)\$# '*)># \$*&\$# (\$&##'+0<2\$*+)%#0)%
<"=+%'\$&#"("3#"#\$<#

\$+/*")2)3(+',#4&%-\$',#)%#/<2\$2#A&2#H%\$*<%,#QRRXT#7.=)>#v\$6\$#(U\$*+##?&\$*
=+?+"="+"/.#&"=#2)/1("##+00+/\$0#.'\$+4(/#&/\$)%'#/)"0)%4("3#\$A(#5(2(\$.

\$

!! \$,/ &) & 6 &) 1, ' * \$ * 1 4) 7 / \$ ' 3 4) 2 3 \$ & . ' , / 0 1 . 2 ' &) 1, / \$

#

! " \$ (\$ < \$ () " & 2 # 2) 3 (/ # & # < ' + 0 < 2 # \$ * +) # \$) # ' \$ < = . # ') / () 1 \$ + / * ' (/ & 2 # ' . \$ + 4 ' # & " = # \$ * + (%

\$ % & " " 0) % 4 & \$ 6 #

("\$((\$<\$)"&2#2)3(/#/&1#F('\$#("#')/(\$+/*"/&2#%+3(4+',#)>("3#\$)#\$*+##?%+'+'/+#)0#4<2\$(?2+#
)%=+%'#&"=#4<2\$(?2+#A&2#')/(\$+/*"/&2#.'\$+4874("-#+\$#&26,#8UVQb;

f)"/+?#\$<&2('("3#%+3(4+'#\$)#5+#/)"\$(\$<\$+=#5.#4<2\$(?2+#2)3(/#*&'#(4?)%\$&"\$#(4?2(/&\$())"#0)9
<"=+%'\$&"=("\$&5(2(\$.#+/)4+'#%+2+A&\$)#<"=+%'\$&"=#*)>#\$*+##?%+'+'/+#13(22+#(=#&2#
\$.?+#2)3(/&%/)#1+F('\$("3#("#&#%+3(4/2=("\$3#\$*+##%+2&\$())"*('?#5+\$#)+02#/"3#A&2<+'#
&"=#%&\$())"&2#&"=#*)>#</'*4<2\$(?2+#2)3(/#&"=#<"=+%/23#'#&"=#%&\$())"&2(\$+',#("#\$<%",#
&00+/\$\$*+79: 674("-#+\$#&26,#8UVQb;#&%3<+#\$*&\$#+A+"#>*+"#4<2\$(?2+#2)3(/&)'#
&("#5+#/)"(=+%#&52+,#\3(A+"#\$*+#+45+=+=+"#&"=#'\$&5(2(\$.#)0#2)3(/'k#8??6#Ucb;6#C*
+45+=+=+=+'+"#&"=#'\$&5(2(\$.#)0#2)3(/'8%&%\$/<28%2##%+2+A&"\$#("#\$*+##/)"\$F\$#)0#
B2)5&2#<\$*,#>*+%+# ("#\$*+##/)<%'+##)0#/'&"2=##2)3(/8';# &&24)'\$# "+A+%)+?2+\$+2#
=+'\$&5(2('+=#&'#+>#2)3(/#&??+&%#("#%+3(4+'6#C*('#(=#<+#\$)#\$*+##=14)'4((\$.#)0#')/()
"++=',#')/() 1?)2(\$(/&2#?%+"<%+'#\$)#<?*)2=#+F('\$("3#A&2<+'#&"=#?2&""("3#0)%#0<\$<%+##<"/+%)
("#\$*+##/)"\$+F\$#8K(+/Z)%+-

!

C*)%\$)"#+\$#&26,#8UVQU;# '<33+'\$ '\$(\$A\$)'&2%=%#C*+'(#2<=+#\$*7\$&\$+N&%-+\$,#
f)44<"(\$,# h%)0+"()",#)%?)%&\$()'W4(2#&"=# +2(3()6#d&/*#)0#\$*+'+#("\$(\$<\$()&2#)%=%'#

!

)!

)%3&"('&\$()'"6#K*(2+#\$*+'+#)%4&.%5+#?%+'+'8\$##/*%&/\$+%('+#?&%\$#/'\$D#4T#'\$*+.#
%&%#24("&\$+'\$*+'#%+3(4+'#&"=#2+&=#\$%&""0)%4&\$()'"#)0#+'\$5%*#/'&2#'. '\$+4 G

N&".# &/)\$)%# /&"#)?+%&\$+# '(4<2\$&"<)'2.# <"=+%# +&/*#)0# \$*+'+# ("'\$(\$<\$() "&2#)%=+% '6#
("\$&"/+,# \$*+' '\$&\$+#)%=+%# 4&.# /)'"('\$#)0# =(00+%+"\$# ?<52(/# +"\$(\$('+'# ("2<=("3# "&\$() "&2#
%+3() "&2# 3)A+% "4+"\$",##4<"(/(?&2(\$('6# CN&%-+\$#)%#4&# ("2<=#?<52(/# +"\$(\$('+'#
&2)"3' (=+# ?%(A&\$+# 0(%4A#<&2#&"=#)%3&"('&\$()'"# &# &/)\$4&".# &/)\$%# ("2<=("3#
("=(A(<&2#<,'#)" 12%)0(\$,#"3)A+% "4+"\$&2#)%3&"('&\$()'",#&/\$(A('\$#3%)<?',#'+(3*5)<%*))=#
5&' +=,# 3+"=15&' +=#" +\$>)%-('3# &"=# ?<52(/# +"3&3+49%"\$?'# /&0)22)># \$*+'# 2)3(/#)0# &#
/)44<"(\$.#)%=+%#6/\$)%65+*&A()<%/ &"# 5+# '\$+%?%+\$+=# \$)# 0722%\$# /<2&%# ("'\$(\$<\$() "&2#
)%=>% ' &"=#4<2\$ (?2+# ("'\$(\$<\$() "&2#)%%=+%17&\$###()'#&#%+3(4+,#5+/&<' +=#(00+%+"\$#&/\$(') (&<

2(A+&5(2\$=#/)) 4(/#+00(/(+"/.00*+'+#&%+#�+>#+F&4?2+##)0#/\$*

#

C%+&\$('32# \$*%++# A&2\$*##(4(2&%# 2+A+2'#)0# (4?)%\$&%<#(&2# 0)%# '<\$&("5(2(\$.#
\$%&'"(\$)'#"#\$*+# B2)5&2# 76C\$*('('\$)#.&\$*&\$ \$\$\$\$="("3# \$)5+("2# A&2<+# &%+# &#
(4?)%\$&"\$# &# %+=</(("3# +4(")"# 2+2#6&52+# 5+2)># ?%+'+"\$'# &# /)4?%+*+"(A+# 8)"
+F*&<\$ (A+;# 2('\$#)0# /%0\$#0/(&#)0# \$*+# \$*%("(\$(<\$() "&2# A&2<+'#=#%&>"# 0%)4# ?%+A())<'#
%'+&%/*#>(\$*#?%&/(\$()!"%&("##)"\$+F\$#

#

C&52+#U6#!"/(&\$ (A+#2('\$#)0# /%(\$+%(&\$#)#4&?#\$*+#\$*%++#"("\$(\$(<\$() "&2# A&2<+'#0)%# '<\$&(
("##4+3&/(\$.#8f)'"2(=&\$+=#0%)4#7<'\$&("52+#N)5(2(\$.#0)&#H2,)#UQQ#;

#

!"##\$%'()*+,#,)"	-.&/&""/0)*+,#,)"	12""") 34%&#&50)*+,#,)"
?J+)"3%,7%#//\$&&%#/'&&%) -/,.\$% 9%\$%\$77)/)\$-"%+&\$%,7%'\$&,+ 9%\$ (+/\$(%#)'%5,99+%),- =',+5&:%#=\$-('\$:%#=\$:%()&#*)9)"3% K)-/9+()-=%\$-\$'=3:%"\$0-,9,=3: #-(%=\$,#'50)/#9%9,/#"),-,%K'\$ (+/\$ &5#/\$:)%&""+""),-&9%-(% *#")'\$%#-(%#77,'(#*)9)%L '\$=+9#"),-&9% 5.5',<\$(%#//\$&&%",%N,*&%#-(% 9%\$/,+59)-=%,7%B4D%='8"0% 9%\$ (+/\$(%-,)&% 5',(+/'<\$%,55,""+-)"\$&% \$-\$'=3%/,-&+.5"),-,%7,% 5,99+"),-% ""#-&5,"" %	E.5',<\$(%#//\$&&%",%#.'C\$"&%#-(% 9%\$,,(%B,<\$'-#-/\$ % 9%\$ (+/\$(%BOB%\$.)&%) *#&)/%&\$<)/\$&%#&%0\$#9"0%#-(% \$(+/#"),- %	9%\$ (+/"),-%,7%7#"#9)"3:)-N+'3:% 9%<\$#=\$%#=\$%,7%<\$0)/9%9% 9%\$ (+/\$(%2F%.)&),- % /'#&0%#"&9% 9%\$ (+/\$(%)&C&%7,'%<+9-\$'#*9\$% 9%/,,-.)/%7\$#&*)9)"% 9%\$&)9)\$-/\$%",%/9).#" \$ &+/0%#&%5\$(\$&""#-&:%*)/3/9)&"& ()&#&"\$&%%0%0%0% /0)9('\$- %
9%\$ (+/"),-%,7%&,/)#9%/,&"&%%,7% 9%\$/(\$&*)9)%3%"\$0-,9,=)9% 9%\$&\$<#"),-%,7% ""#-&5,""%\$9#"\$(%K&+/0%#&%0\$# /,,&3&"\$.&% /,&"&%#-(%7,'=-,\$%5',(+/"<)%L 9%,7,""%%,7%/,...+"\$& %	9%\$ (+/"),-%,7%0\$#9"0%#-(% /,&"&%#&.,/)#"\$(%8)"0' 5,,%'#)"%J+#9)"3%#-(% -,)&\$%9\$<9&	

!

"#|

76//5\$"#*)9)"3S%5,&&*)9)"3%,7%

#

!

"%

W(3<%+#U#'*>'#&#*.?)\$*+\$(/∧2#: +3(4+#r#/)4?%('+=#)0#f)44<"(\$.#2+=#>+225+("3,#7\$&\$+\$#2-
3%++7&"=#7\$&\$+\$#2+=#+00(/(+"/.#!L'6#H")\$*+%#*.?)\$*+\$(/∧2#: +3(4+#[#('#/)4?%('+=#)0#f)44<"(\$.#
2+=#3%++",#N&%-+\$#25=(#3#22=#N&%\$#2+=#3%++"##L"\$#("3#</*#/)4?)"(\$())#)0#&#
%+3(4+#\$# #0(%'\$#\$-#2"\$)%'\$&"\$#+#"&\$<%+#)0#="&\$4/5(2(\$.#)0#%+3#4+'6
#

#

W(3<%+#UE#f)4?)"(\$())#)0#="&4(/∧22.#'\$&52+##%+3(4+'

#

!

"&

#

Q;#7("32%="+4%&"0)%4&\$@"#

#

H'# \$*+# /)4?')(\$)"#)0# \$*+# %+3(4+# /*&"3+'# &2)"3# \$*+# /)<%'+#)0# \$%&"0)%4&\$()"#)"+#

("\$((\$<\$()&2#)%="+%#4&.#%+4&("#)%#5+/)4+#=)4("&"\$#)A+>%#)\$((\$<\$()&2#A&2<+'#

4&.# +4+%3+,# +(\$*+%# \$*%)<3*#">#)%#)2=# &/\$)%'# ("# \$*+# '&4+# ("\$((\$<\$()&2#)%="+%6#

" + 3)\$(& \$() %5 + \$ > + + "#) 2 = # & " = # " + > # & / # % 1) % # A & 2 < \$ * < ' # % * 2 \$ # (" # & # 0 % & 3 4 + " \$ + = # '\$ & 5 (2 (\$.
) 0 \$ * + # % + 3 (4 + # 4 < 2 \$ (? 2 3 #) 3 % & ? * (/ & 2 # ?) / - 6 \$
 #

C & 5 2 e 6 # C . ? + ' #) 0 # \$ % & " " 0) % 4 & \$ () " # & " = # '\$ & 5 (2 (\$. #) 0) 2 2) > 3 (' 3 # K * + + 2 #) 0 # 2) 3 (/
 #

C . ? + #) 0 \$ % & " " 0) % 4 & \$ () "	f) 4 ?) ' (\$) " #) 0 # (" " \$ (\$ < \$) " & 2 #) % # + 9	f) 4 ?) ' (\$) " #) 0 # ' < ' \$ & (" & 5 (2 (\$. # A & 2 < % + 3 (4 + ' # 8 7 9 # ,	j & \$ < % + #) 0 # '\$ & 5 (2 (\$. 9 % = + % + = # '\$ & 5 (2 (\$.
Q 6 # 7 (" 3 2 + #) % = \$ % & " " 0) % 4 & \$ () "	9 " + # =) 4 (" & " \$ #) % = #) % = + % #	N < 2 \$ (? 2 + # A & 2 < + ' 9 " + # =) 4 (" & " \$ # A & 2 #	9 % = + % + = # '\$ & 5 (2 (\$. e (% + / \$ + = # '\$ & 5 (2 (\$.
U 6 N < 2 \$ (? 2 + # 1) F (' (" 3 \$ % & " " 0) % 4 & \$ () "	N < 2 \$ (? 2 + # 1) F (' (" 3) % = + % #	9 " + # =) 4 (" & " \$ # A & 2 #) % = + % #	e (% + / \$ + = # '\$ & 5 (2 (\$. W % & 3 4 + " \$ + = # '\$ & 5 (2 (\$.
c 6 # 7 > (\$ / * (" 3 #) % = + 9 \$ % & " " 0) % 4 & \$ () "	9 " + #) % # 4 < 2 \$ (?) % = + % # (" # & # ' (' ' ? & / + #	9 " + #) % # 4 < 2 \$ (? A & 2 < + ' # (" # & # ' (' ' ? & / + #	W % & 3 4 + " \$ + = # '\$ & 5 (2 (\$. ' ? & / + #

#

DB\$E#7"(4\$

\$

8 " # \$ > 3 . ' &) 1 , *) /) , 4 \$ & : 3 9 : 3 3 * \$ 1 0 \$ 4) 7 / \$

#

C * + # 0 % & 4 + >) % - # / & " # 5 + #) ? + % & \$ () " & 2 (' + = # (" # < " = + % ' \$ & " = (" 3 # '\$ & 5 (2 (\$. # & " = # \$ % & " " 0) % 4 & \$ ()
 % + 3 (4 + ' , # (" # \$ * % + + # '\$ + ? ' 6 # H ' # & # 0 (% '\$ # '\$ + ? , # ' / *) 2 & % " '\$ (0 + # \$ 1) " \$ (\$ < \$ () " & 2 #) % = + % #
) ? + % & \$ (" 3 # & 1 % + 3 (4 & " = # \$ *) ' + # \$ * & \$ # & % + # " + 4 2 / 3 (" 1 " # \$ * + # % + 3 (4 # # \$ * (' # '\$ + ?) , # # / & " #
 0) 2 2) > # \$ * + # / % & / \$ + % (' \$ (/ #) < 2 (" + e & 5 2 + # 5 0 # < " = + % ' \$ & " = # > * + \$ * + % #

!

" (!

&/\$()",#*(/*#=%(A+#0<\$<%+#\$%&""0)044&\$(-)/+#)0#4\$22+#<'\$&("&5(2(\$.#A&2<+'#("#?)2(/.#
=(/)<%'+'# &#"=# ("(\$(&\$ (A+'# 0)%# /*&"3+# &%+# ")\$# <"/)44)"6#!\$# ('# *(3*2.# 2#&2\$)#\$&\$# &
m<'\$(0(+ '#*(/*#&\$())""#<("3# 4)%+# \$*&"#)" + '#<'\$&("&5(2(\$.#,A&2%+0)%<'\$&("&5(2(\$.#
A&2<+'#&%+#=(/)"'+/\$"=#?+"=")\$#)0""\$(\$<\$())&2#)%=#%'6#

!"#\$*+##\$*(%=#'\$+\$?,#)" + # "++=#\$)#(="\$(0.#/*&"3+'#("#\$*+##/)4?)'(\$())#)0#2)3(/'#("#&#%+3(4+6#C'
/&"#5+#=)" + #\$*%)<3*#&"&2.'("3#>*+\$*+%#"+>#(""\$(\$<\$())&2#&/(\$)%'#&="#\$*+(%#/*&%&/\$+%('\$(/
+4+%3("3# \$)# 5+# =)4("&"\$# (""\$(\$<\$())&2#

&%#(#/<"+=#&"=#/%)'1*+/-+=#>(\$*#/)22+&3<(###+A+%&2#'\$&3+'#)0#>%(\$("3#&#>22#%
&'#>(\$*#+F?+%\$'#("#O)2-&\$&,#&'#&'#+00)%\$#\$)#4&-+#\$*(' #&2#(#+0<2(52%# \$*+ #
'\$&-+*)2=+%#h+\$# \$&26

'<'\$&("&5(2(\$.#("#4+\$%)#%+3(4+#\$%&""0)94081)H#UVQaE#j&9#=#)"# \$*#('/<%'(A+#
+A(="+"/+,#!#/)"/2<=+#\$*&\$#4<2\$(?2+#&/)\$)%#0)22)>("3#\$*+#7\$&\$+#)%=+%#'*&%+#\$*+#<'\$&
A&2<+',#\$*+%+5.#&3%++("3#)"#\$*+#=(%+/\$())"#)0#\$*+#%+3(4+#\$%&\$*0)/)4&\$()#60#
&"&2.'(,##&2')#0)<"=#\$*&\$#>527"3#A&2<+4)%+#?%)4("+2.#'0)%/+=#\$*%)<3*#4<2\$(?2+#
/%)(\$+%(&#/)4?&%+=# \$)# +00/(("+"/.# &=# 3%+1#43&2\$("3# \$*&\$#(' \$%&""0)%4&\$())# ('#
?%+=)4("&"\$2.)#&%=#&==%+"("3#)/(+\$&2#/*&22#C*3#6."&4(/#\$&5(2(\$.#)0#\$*('#%+3(4+#('

%+3(4,#4&".#&<\$=%(A+%#)?+%&\$+#>(\$#)>99/(/22#%4(\$#&'#\$*+#3)A+% "4+"\$#"\$)?
("<("3#?+%4(\$#("#)%=+%#)\$#/#\$%3/2#>\$*#)0#\$*+#"<45+%#)016(<\$)&>'("#\$*+#/(\$.6#
@)>+A+%,#*(3*#="+4&"=#0)%# \$*('#4)=+#)0# \$%&""?)%\$#>&'#4&\$#*#<?2(\$)*0#&<\$)
%(/-'*&>#>(\$*)<\$#2+3&2#?+>0\$#(\$#&'"/+=#5.#?%(A&\$+#0("&'/(+%#'#8Qa'6#W<%\$*+%4)%+,#
0&%+'#&%+#&2')#&22+3+=2.#=('\$)%\$+=#\$*%)<3*#_*&332("3#&"=#)A+%A&%3(/3)_##&"=#\$*+'+#
%)<\$+'#("#3%+&\$#?%)#3@&9%=("3#+\$#&26CUVQ(""\$&'/'#*)>#\$*&\$#\$*+#N&%12+\$#
+00/(+'/'.#2)3(/#?%(4&%(2.#3)A+#&<\$#)0%(/-'*&>#%+3(4#6##

H\$#\$*+#'&4+#\$(4+,#')40##\$*+/%(\$+%(�)22#("3A&2<>&'#&2')#4+\$#("\$*('\$4&%2+\$#
&<\$)0%(/-'*&>#%+3(4+6#%\$&("#'+/\$()""#)\$*+?)?<2&\$()#</'#&'

O)2-&\$&,#0)%2#%?'%("3#\$)#5+#\'4&%\$)"/(\$1%+=#.12("3#&#&#-+.#("3%+=(+ "\$#0)%#\'4&%\$#
&"=#3%++"#\$\$%&""?)%\$#4)=+#0)%#\$*+#!/(\$6#C*('#4&("2.#+ "A(')" +=#5.#\$*+#3)A+%("3#&<\$*)%
j+>#C)>"#O)2-&\$&#e+A+2)?4+"\$#H<\$*)%(\$8j06(A,\$\$+#!/)4?&('+'#>#A(\$+=#\$)("#A+'\$#
&"=# (4?2+4+"\$# '\$%&\$+3(+ '# \$)# <(' \$%)#2("3# '*&%("3# ('0%&'\$%</\$<%+'6# W)22)>("3# \$*('
("A(\$&\$()","# p))4/&%,# &# 02%2= ("3# ('# 1880("3# 5<('+"# ('# !"=(&# \$)) -# /*&%3+#)0#
(4?2+4+"\$ ("3# \$*+#0(%)\$12+"#.#12+# '*&%("3# '/'*+4+#)0#O)2-&\$&,#" &4+=# Vh1e&(\$%&,#
UVQ6B)("3#5.\$*+#?%(" /(?2+0\$)+#N&%-\$#&("#\$(\$<\$() "&2#)%=\$%#,#>#&=(\$() "\$\$)#\$*+#
%+3(4+#&"<4-#.#12 +&#'#&#?<52(/#\$\$%&""?)%\$#4)=-#.#12+# '*&%("3#&#&#+'70A)A(=+=#\$)#
\$*+#<'+%#0)22)>("3#4&%-+\$#%>42+\$100) ,#\$%&""&/\$() "&=#?%)0(\$ "\$+ %A(+>+6#RQ"#
/*&"3 +#%+D<(%+\$\$("3# <?#>#.#12("3# ('0%&'\$%</\$<%+# ("# \$&+##(\$#'+># &%%&"3+4+"\$#
>*+%+#!/.12+'#&%) \$#)'>+=#5.#\$*+#("=(A(=<&2',#5<#)45&#,#>*(/*#<'+%#'/&"#<'+#\$*%)<3*#
&??5&' +=#?&.4+"\$6€*('#/*&"3+# ("#/.12("3#%+3(4+#)0#O)2#29&=)4("&"\$2.#3<(+=#5.
4 &%-13+=3%0++"#

H2)"3'(=+# \$*+# &\$ \$+4\$ \$#("\$%)=<# \$*+#># /.2("3# '*&%("3# '/*+4+,# \$*+%+>&'# &2')# &"#
#+

("\$((\$<\$() "&2#2)3(/#/) "\$(\$<\$("3#&#%B@Y004&","#UVQC* A##+?\$<&2#0%&4+>)%-#("\$#\$('#
?&?+%#

&/(\$)%6C*+##/&'+##=+4)""\$%&\$+'#Q%#+'"/+#)0#("0)%4&2(\$.#=)+'#")\$#"'+/"&%(2.#4+&"#2&/-#)0#
'\$&5(2(\$.#)0#%+3(4+T#U;# '*&%+=#+"A(')" +=#=(%+/\$)"&2(\$.#)0#/*&"3+#7&"&4("K%+#\$*+#
'\$&5(2(\$.#)0#<'\$&("&52+##%+3(4&16)%22&%.#)0#\$*+##/)"\$("<+=#4)4+"\$<4#0)%#7+&"3+,#\$
&<\$)P%(/-'*&>##/&'+&2')#

#

#

W(3<%+#c6#f)4\$()""#)0#%+3(4(-#5%&""0)%4&\$()#"("#O)2#&\$&#

#

C*+##/ &' +#\$<=(+'#&")/(&\$+=#)" +#"("\$(\$<\$() "&2#)%=+%#)\$# +&/ *#&/ \$)% ,#>*(2+#&/ -)">2+=3("3#\$*
4&".# &/ \$)% '# /&""# 5+# '++"# &' # 2)/&\$+=# ("# \$*+ # J3%+.# &%+&P# 5+\$>+ +"# \$>)# (" "\$(\$<\$() "&2#)%
7(4(2&%2.,#4&".# '<\$&(" &5(2(\$.# /%(\$+%(&# /&""# 5+#0)%# (" "\$&"/+ ,# (15#5"3">&""# 3%22-"#
A&2<+ '6#C*+##/ *) (/+ #4&=+ #0)%#&")/(&\$("3#&""&/ \$)%#)%#&# /%(\$+%())"# \$)#&#?&%\$ (/<2&%#)%=
(# &*(3*2.# '\$.2('+=# (" \$+%?%+\$&\$() "#)0#0%&2("\$.# 8UVVbT# 92\$%&# &="# q+6#C*UVVb;
'\$.2('+=#%+?%+ '+' "\$&\$() "#*)<2=#?+%*&?'#")\$\$5=#&%&&>+&- "+"#)0#\$*+ #&"&2.'(,#&'#(\$#(' #
)44)"#?%&/ \$/ +#" "\$%&"" (\$)""#2(\$+%&\$<%+ #&="#<' +0<2#\$)#%+ ("0)%/ +#\$*+ #=(00+ %+" /+ 'k#8q)
7<"4+%,# UVVRE#CS+6#)0# \$*+ # 4&(" #=(00(/<2\$(+ '#)0# 4)5(2('("3# \$*(' # 0%&4+>)%-# ('# \$*+ #>&.#

!

\$\$

'<'\$&('"&5(2(\$W<\$<%+#%+'+'&%/*#4&.#/)%≠0%(#3#\$>#++2(#\$)#&#/)"\$("<4#\$)#/!&?\$<%+#
\$*+#"#\$+%'+/("\$)&2(\$+\$>+"#)%=+%'#&"=#A&2<+'6#
#

LB\$M(5-'8.,(\$

!
C*+4&("#)"\$%(5<\$())0\$*('#?&?+%#(0\$)#3%)<"=#\$*+#"("<+#)0#\$&5(2(\$.#)0&#=#300-#%
&#<&"/+=#<"=+%'\$&#"("3#\$*+#+="&4(9# #"\$#\$*+#+B2)5&2#7)<\$*,#4)A(53#)"=#\$*+#+8%&\$*+%#

%

;#A)9)#-:%IV4V:%2#9\$3:%!V:%U,-)&C3:%4V:%h\$")77):%OV:%D#):%!V%#-(%O#-(9\$':%;V:%WXWYV%?0
,7%N+&"%""#-&)

!

\$' |

>+\$-7&/0)99)%\V%#-(%1'+77\$':%;V:%WXY^V%10\$%&"+/("0),%970(\$=)S& 2,-/\$5"+#9%
7,+-(#"),-&%7',.%)-&)"+"),-#9%"0\$%V&\$#/0%D,9%K^L:%55V@VV%
%
>+'9,-=:%UV:%WXY^V%!1!%*\$3,-(%"0\$%l.,(\$'-%)-7'#&""+'+'\$%)((\$#9m]?Q"\$-()-=%"0\$, "3%*3%\$-=#=)-=
)-7'#&""+'+'\$%/0#99\$-=\$&%)-%"0\$%!,+"OV

%
ME

!

%'

!3(,8:%R:%!/0'\$3u==:%B:%U,/0:%R:%WXXcV%P'=#-)A#"),-#9%5#"0%(\$5\$-(\$-/\$_%,\$5\$-)=%"0\$%*9#/C%*,

%

H)\$/A,'\$C:%FVRV:%WXY`V%!+&"#)-#*)9)"3%""#-&)"",-&%)-%(\$<\$9,5)-=%/,+-"")\$&]%l#N,'%)-&)=0"&%#-(%
)59)/#"",-&%7,'%\$\$#\$'/0%#-(%5%\$)K\$V.\$-"#9%!/)\$/%[%D,9)/36:%55VW@YZV

!

%\$

a#	7+"()%#900(#&2	9/(\$5+%#UV#Qb N+\$%# &"=#e+/+45+%# UVQ#
----	----------------	--

August

2021.05. A paradigm shift for decision-making in an era of deep and extended changes. Mauro Lombardi and Simone Vannuccini.

2021.04. Exploring the Antibiotics Innovation System and R&D policies in China: Mission Oriented Innovation?. Yuhao Bao, Adrian Ely, Michael Hopkins, Xianzhe Li and Yangmu Huang.

May

2021.03. Appraising research policy instrument mixes: a multicriteria mapping study in six European countries of diagnostic innovation to manage antimicrobial resistance. Josie Coburn, Frederique Bone, Michael M. Hopkins, Andy C. Stirling, Jorge Mestre-Ferrandiz, Stathis Arapostathis and Martin J. Llewelyn.

2021.02. Artificial Intelligence's New Clothes? From General Purpose Technology to Large Technical System. Simone Vannuccini and Ekaterina Prytkova.

January

2021.01. Exploring the links between research demand and supply: The case of Chagas. Valeria Arza and Agustina Colonna.

December

2020.20. Riskwork in the Construction of Heathrow Terminal 2. Rebecca Vine.

2020.19. The Origin of the Sharing Economy Meets the Legacy of Fractional Ownership. Francesco Pasimeni.