$$f : [0,1]^n \to [0,1]^n$$

$$x : [0,1]^n \qquad M : [0,1]^{n,n}$$
$$a : [0,1]^n$$

$$f.x \;:=\; a + M.x$$ note row sums ≤ 1, because $a + M.\underline{1} \leq \underline{1}$

$$\mu.f = (\sqcup n.\ f^n.\underline{0})$$
$$\nu.f = (\sqcap n.\ f^n.\underline{1})$$
$$[r].f = \lim_{n\to\infty} f^n.\underline{r}$$ defined?

Yes: eg. $f^2.\underline{r} =$
$$a + M.(f.\underline{r}) =$$
$$\underbrace{a + M.a}_{\text{non-decreasing}} + \underbrace{M^2.\underline{r}}_{\text{non-increasing, because } M.\underline{r} \leq \underline{r}}$$

More generally, $f.x := f_1.x \sqcap f_2.x$
both as above

still continuous if only finitely many $\sqcap$, $\sqcup$.

$\mu.f$, $\nu.f$ as before, by monotonicity (even if not continuous) eg. $\mu.f = (\sqcap x \mid f.x \leq x)$

But $\lim_{n\to\infty} f^n.\underline{r}$ now?